Sustainable Intra-Country Transportation System: a Panacea for African Regional Economic Integration

Omotayo, Adeleke
3, Idi Osan Street, Iwo Road, Ibadan
Oyo State, Nigeria
E-mail: omotayo8@live.com
Phone: +2348087305706

Abstract
This study examined the scope of African’s regional economic integration and the role of transport infrastructure, domestic trade, trade facilitation, intra-African trade, market competitiveness, policies and planning, and regional economic communities (RECs). Trade and not aid, is the new mantra for those clamouring for unique solutions to solving African problems instead of soliciting for funds outside the continent. However, the figures for intra-Africa trading have not been impressive mostly due to infrastructural conditions. Trade and transport barriers lessen the competitiveness of locally manufactured goods. It is argued that a sustainable intra-country transport infrastructure has an immense impact on macroeconomics and development, therefore, it is an irreplaceable factor for wider economic integration. As such, single markets can merge with the regional ones with the aid of protocols and resolutions at the regional economic communities. The focus is entirely placed on the road transport because it is the mainstay of most African economies. An assessment was done on transport policies in Nigeria, as an example and some regional efforts too to improve the sector’s condition.

Introduction
The transport system is of crucial importance for economic development and growth of any nation and region. As the necessary conduit for trade, the passage of goods and services and movement, transportation serves a role that has a telling effect on development and market performance per time. By all metrics, Africa is far behind in terms of regional trade and development owing to a wobble economic integration with poor infrastructures. Pan African proponents have come out with a strong argument that trade, and not aid is what the continent needs to steer through the multifaceted developmental challenges that plague it. But the deplorable infrastructural state remains a threat to this noble conclusion.

In addressing the problem, the intra-country transportation system is seen as having the potential to have a domino effect on a larger scale to prompt regional economic integration. Therefore investments and reforms to facilitate trade and transport at the national and regional
level should go hand in hand. It is certainly not out of order to hope efforts at one level reinforce the payback of efforts at the other (Coste, 2017).

Using Nigeria, Africa’s biggest economy, as a case study of this discourse, a framework is designed from domestic trade reflecting how internal trade liberalization and sustainable transport infrastructure are determinants of regional economic growth and social welfare. On the other hand, regional trade can serve as an effective platform for African SMEs as they learn to compete internationally (Mbekedi, 2013). This mildly displays the relationship about intra-country trade and regional trade towards global competition.

The SME landscape in Nigeria faces multifaceted constrains varying from access to finance, inconsistent government policies, red-tapism, inadequate raw materials, to infrastructure. And just like Kaberuka (2015) explained, the legacy of colonialism still looms large when asked if money will solve Africa’s developmental problems. More investment is needed in transportation tackling the infrastructural challenge strengthens services delivery to facilitate market access and reduce the cost of doing business (OECD, 2004).

The discourse started by presenting the problem of regional economic integration; it then describes the models of cattle and meat trade along transport corridors, with Nigeria as a case study; then it highlights the importance of transportation in economic efficiency; then a look at previous attempt to salvage the transportation condition in Nigeria; then the argument that intracountry transport system necessarily aids regional integration is presented; it concludes by suggesting strategies and policy standards for the harmony of intracountry and regional trade.

Methodology

The methodology employed in this paper is based on secondary sources of data: a combination of personal interview, library and desk research- online desk research, and government published data. Scholars who have previously researched on transportation, trade, and economic development in Africa were contacted on their perspective about the subject matter of this paper. From these consultations, the problem of trade policy implementation is identified and proposals on how it can be corrected are offered.

The federal ministry of industry, trade, investment’s library is visited to read up materials on trade in Nigeria, roles of the efficient transport system in economic integration and the ministry’s previous efforts in facilitating intracountry trade. Books, publications, journals, and online resources were consulted. The United States International Trade Commission, World Trade Organization (WTO), United Nations’ Economic Commission for Africa, African Region of the World Bank reports were analyzed and deployed for this paper. Government data, courtesy of the National Bureau of Statistics (NBS) are also examined. These sources informed the conclusion and observations derived in course of researching this paper.

The Problem of Regional Integration in Africa

Majority of African countries do have a low per capita income levels and small markets are consequent of a small population. In 2008, 12 sub-Saharan states had populations of less than 2 million while 19 had a gross domestic product (GDP) of less than US$5 billion, six of which had a GDP of less than US$1 Billion (Hartzenberg, 2011). Hartzenberg (2011) continued, “not only are most Sub-Saharan economies small and poor, but 15 are also landlocked, an important contributory factor to high trade transaction costs, and more generally to the high costs of doing business in Africa”. Though he did not expatiate how the
cost of doing business is high by the virtue of countries being landlocked, the picture is clear enough. Sub-Saharan Africa is in a dire economic state that desperately needs intervention.

The idea of economic regional integration is one that African governments accept and back. Indeed since independence, they have embraced regional integration as an important component of their development strategies and concluded a very large number of regional integration arrangements (RIAs), several of which have significant membership overlap (Hartzenberg, 2011).

**Fig I. Map indicating the various combinations of overlapping memberships to the RECs in the continent**

![Map of Africa showing overlapping regional economic communities](source: UNECA (2016))

These have not yielded positive results as one might expect with the continent still stuck to armchair theorizing with no commensurate ambition to practically foster economic integration, much less trade facilitation.

Intra-African trade is a crucial pillar to foster regional integration but the numbers have not been impressive even with most countries being a member of at least one REC. The RECs do have the potential to contribute to the growth of intra-Africa trade, enhance Africa’s bargaining power in trade negotiations, and help ensure more policy credibility (Geda & Seid, 2015). A good deal of the social effect is advantageous if modelled well. Like a good policy framework such as sustainable physical infrastructure, political stability, well drawn macroeconomic planning etc., could all prompt social benefits.

In addition, political instability has been synonymous with the continent since 1960 when most states declared their independence. Political instability in its subtle form has been expressed in stresses and constraints in the political system and at the other extreme in civil
disorder and war (Olaniyan, 2008). Its major causes, often times, are ethnic tensions, poor governance, perceived unfairness at the distribution of economic resources, and marginalization. Economic activities are grounded and that leaves a war-torn country solely dependent on consuming rather than having a producing culture. Since 2010, African's growth has receded and has been focused mainly on oil exporting economies and northern countries are still in the process of reconstruction after the Arab Spring's political turmoil. The economies of Egypt, Libya, and Tunisia did not grow at all between 2010 and 2015, in stark contrast to average annual growth among the three economies of 4.8% in the previous decade (Leke & Barton, 2016). Also, political instability has the potential of having a spiral effect on neighbouring countries’ security and the economy as well aside the troubled state’s import-export indexes and fiscal balance. Regional economic integration cannot blossom in such volatile clime.

An unusual suspect among the challenges to achieving integration in Africa is the multiplicity of RECs. The multiplicity of RECs in the regions, with attendant overlapping membership by countries, is an important issue affecting the pace of regional and continental integration (Olaniyan, 2008). History, strategy and economy are deciding factors that propel countries to hold more than a single membership seat across regional bodies. Political and strategic consideration derives from national security needs while economic imperatives are based on perceived economic, trade, investments etc. that could rapidly accrue to the country in an integration arrangement (Olaniyan, 2008).

Furthermore, Africa’s poor state of trade-related infrastructure compounds the problem of development. Poor infrastructure, or its complete absence, makes trade physically difficult, quite independent of the trade regime (Geda & Seid, 2015). Geda and Seid (2015) further, explicated that most countries cannot generate sufficient quantity and quality of competitive exports or attract significant amounts of foreign investment. Physical infrastructures such as roads, railways, waterways, ports, airways, and telecommunication are in deplorable states. The infrastructures inherited at independence were inadequate and many countries have failed to bring about substantial improvements because of sufficient resources or the failure to accord them adequate priorities they deserve (Olaniyan, 2008).

**Domestic Trade and Transportation Condition in Nigeria**

The distribution of consumer goods is effected largely through a complex of a network of intermediary traders, who extend the area of distribution and often break down the products into very small units for delivery to the ultimate consumer (Collins, 2010). A challenge to this work is lack of access to data to assess the state of affairs regarding intracountry domestic trade, especially Nigeria. The implication is beyond this scope as inaccurate domestic trade data cannot inform decision making to strengthen the sector. Another fundamental aspect is data on domestic migration- from where to where? At what volume and rate and which region is migrating more? These are evidence of palpable gaps in Nigeria’s economic data framework (Onome, 2017), like most African states.

Most freight in the country gets transported through road and most roads are still unpaved with the paved ones being in deplorable states. For other countries, this is the same tale. The situation is particularly dire in the DRC and Angola…even in Kenya, which scored next after South Africa in road quality among the countries studied, only 14% of roads are paved. Kenya’s capital city, Nairobi, suffers from massive congestion too (PWC, 2013). Transport by roads is adequate but it is the question of maintaining them. Take, for instance, roads in Nigeria carry over 90% of freight and passengers. But capital expenditures there aren’t keeping up with the need for preventive maintenance – just three-quarters of federal roads are
in good or fair condition, and regional roads are in worse shape (PWC, 2013). The maintenance issue not just affects roads—other transport modes are in dire need of proper reconstruction commensurate to their deployed capacity.

The Lagos-Kano-Jibiya corridor is a 1,225 km transport route from Lagos in the South to Kano in the North, and then on to Jibiya, a border town between Nigeria and Niger. The corridor does have strategic importance for both internal and external trades. It serves as a focal transport route for exports to ports in Lagos and imports to the northern inlands. The majority of products travelling north, along the Corridor, are imported consumer staples, intermediate goods such as construction materials, and fuel originating at the Lagos or Cotonou Port complexes. Southbound shipments consist of mostly unprocessed or semi-processed agricultural commodities that are being processed in the south for both human consumption and, in the case of maize, for the rapidly growing poultry and aquaculture sectors (USAID, 2013).

### Table 1: Major commodity flows along the LAKAJI corridor

<table>
<thead>
<tr>
<th>Northbound</th>
<th>Southbound</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rice</td>
<td>Live Cattle</td>
</tr>
<tr>
<td>Sugar</td>
<td>Maize</td>
</tr>
<tr>
<td>Palm Oil</td>
<td>Sorghum</td>
</tr>
<tr>
<td>Fish</td>
<td>Millet</td>
</tr>
<tr>
<td>Packaged Foods</td>
<td>Groundnuts</td>
</tr>
<tr>
<td>Fuel</td>
<td>Cashews</td>
</tr>
<tr>
<td>Fertilizer</td>
<td>Shea butter</td>
</tr>
<tr>
<td>Cement</td>
<td>Cocoa</td>
</tr>
<tr>
<td>Construction material</td>
<td>Cotton</td>
</tr>
<tr>
<td></td>
<td>Sesame</td>
</tr>
</tbody>
</table>

**Source:** USAID (2013)

The Lagos-Kano transport corridor is about 990km and it links the country’s two most populous cities, passing through Kaduna, Ilorin, and Ibadan (Coste, Africa Trade Policy Notes, 2014). The cattle and leather trade northbound and southbound across the corridor are considered and the barriers experienced. Severe congestion due to traffic accidents or disabled trucks, as well as flooding from heavy rain, is frequent along the corridor and can stall cargo for extended periods of time (Coste, Africa Trade Policy Notes, 2014). The corridor is particularly characterized with numerous law enforcement agency roadblock and checkpoints and this contributes to the cost of goods generally. At the checkpoints, law enforcement agents sometimes extort mostly public transport drivers. This phenomenon mirrors the decadence that has ravaged the country since independence, corruption. Police officers are the type of public official to whom bribes are most commonly paid in Nigeria (NBS, 2017). Not surprising, the National Bureau of Statistics’ corruption report reveals the police, road traffic management officials, customs officials, immigration and the army are the actors of bribery incidents on Nigerian roads. On the prevalence rate of bribery by type of public official paid a bribe, police officers rank highest on the scale with 46.4%, immigration service officers’ rank 4th with 30.7%, custom officers with 26.5% at 7th, and members of the armed forces with 19.3% at 14th (NBS, 2017, p. 39). This factor constitutes prolonged transport time and heightens risks for traders. As such, trade transaction costs effectively make it difficult for home-made products from various parts of the country to compete with imported goods. Transport costs can make up 50-75% of the retail price of goods in Malawi, Rwanda, and
Shipping a car from China to Tanzania on the Indian Ocean coast costs $4,000, but getting it from there to nearby Uganda can cost another $5,000 (Halfa, 2013).

Freight flow imbalance is another trade and transportation barrier. Along the Lagos-Kano corridor, the average price charged by trucking companies for transport is much lower in the case of cattle/leather trade from the north to the south (USD 870) than for tanning chemicals from the south to the north (USD 2,100) (Coste, Africa Trade Policy Notes, 2014, p. 7). Hence, the major route on the corridor is for goods which are manufactured or imported in the south and transported to the north. The much lower volume of goods travelling in the opposite direction means that numerous trucks return to Lagos empty and that transport is discounted (Coste, Africa Trade Policy Notes, 2014, p. 7).

Aside from the regulatory charges of truckers of cattle and leather, delays, prolonged transport time, and transport cost and marketing charges; lack of security is a concern for travelers and traders. Kidnappers, robbers, and hoodlums all heighten risks, increase the time as well as cost. According to (Coste, Africa Trade Policy Notes, 2014) there are also frequent reports of robbers stealing traders, who generally carry large amounts of cash during their trip back to the north, sometimes with the complicity of officials at roadblocks. He also submits that transport and related costs could significantly reduce by 18% in the case that undue payments are not made while transporting. On the basis of USD 42 per animal and around 300,000 heads transported from the markets listed above to Lagos every year, removing these unjustified costs would represent a USD 2.3 million saving for cattle trade alone(Coste, Africa Trade Policy Notes, 2014, p. 7). The domestic obstacles to cattle trade at the corridor, it could be argued, counteract Nigeria’s foreign trade. Therefore, eliminating the bottlenecks to internal trade will not only induce profitability for traders, import would significantly reduce and vitalize Nigeria’s export competitiveness in the regional and global markets.

Transport Infrastructure Condition

Regardless of the aforementioned constraints to internal trade, compared to others Nigeria has a relatively advanced infrastructure networks that span across an extensive reach on the nation’s territory. But investments in roads are not impressive and rail infrastructure is lagging behind also. Meanwhile, airports and ports boast of good investment figures recently yielding great international entryway. It is estimated that raising the country’s infrastructure level to that of the region’s middle-income countries could boost annual real GDP growth by around four percentage points (PWC, 2013).

Considering the strength of the economy, there are high hopes for Nigeria’s infrastructural state despite the challenges. Due to its abundant petroleum revenues, Nigeria is better placed than many of its African neighbours to increase the share of fiscal resources going to infrastructure (PWC, 2013).

The government has also clamoured for an enhanced public-private partnership in transport projects across the nation. But infrastructure investments have to be managed from the start to project completion because historically, many of Nigeria’s projects have been left unfinished and the country is littered with examples of well-funded, but unfinished projects, including roads, factories and oil and gas plants (PWC, 2013).

Transport and Economic Efficiency

There is a question of the relationship between transport and economic development which is often described in many ways. As it is, transportation has huge effects on economic productivity and economic growth, whether directly or indirectly. These impacts interact over
time and can lead to improvements in economic output and the geographical distribution of economic activity (Hub, 2017). Transportation is a measure of economic activity: in many instances, it may be a leading indicator, inasmuch as physical movements precede financial transactions (NRC, 2002).

It is important to note that the potential economic impacts of transport changes are not only likely to be inclusive and substantive; they are possibly circumstantial and streamlined. For example, some industry sectors benefit from being part of a cluster of similar or related businesses with access to wide and deep pools of specialist skills, other sectors rely more heavily on connectivity to international gateways for access to overseas markets, whilst other sectors function perfectly well wherever they are located (Hub, 2017).

According to (Hub, 2017) reduced transport costs connote that businesses can:

- Connect with potential suppliers, enabling them to access higher-quality and/or lower-cost inputs.
- Connect with potential customers, enabling them to supply markets further afield.
- Connect with a wider pool of talent in the labour market, allowing skills to be better matched to employment opportunities.

While reduced transport costs mean that individuals can:

- Participate in the labour market.
- Access a wider range of jobs, increasing the chances that they can find a position that provides a better match for their skills.
- Connect with leisure and retail opportunities, allowing them to access a wider range of products or reach similar products at cheaper prices and helping to increase the competitiveness of local businesses (Hub, 2017).

By these models, significant changes in connectivity are inclined to boost productivity and employment for economic output.

The Nigeria National Transport Policy of 1993

The Nigeria National Transport policy of 1993 was an attempt to meet the economic, social and environmental demands of the transport sector. Together, population growth, the rise in economic activity and increased incomes resulted to increased demand for transport service which has unfavourable effect for development. Hence, a sustainable transport policy has been implemented across regions, since it is a global phenomenon, to tackle the challenges and provide enhanced mobility and market access.

On the other hand, the NTP objective of efficient utilization of transport resource refers to economic efficiency in the use of transport resources; hence the aim of NTP is to achieve sustainable transport system in Nigeria (Ugboaja, 2013). Clearly, accessibility, economic efficiency, and safety were the themes of the policy and also for transport sustainability.

In spite of its potentials and precocious performance, the policy failed in its objective to mitigate the negative impact of sustainability issues on the transport system. Observing from (Ugboaja, 2013)’s research which entails data from transport and non-transport workers, six questionnaires were incidentally rejected as major areas for which the NTP enhanced social sustainability in Nigeria since they all have mean scores lower than the expected value of 3.00 on the 5-point Likert scale. From the findings, the total means score of the six items was 2.22
that are lower than the expected value of 3.00 and it was therefore concluded that the extent to which the NTP enhanced social sustainability in Nigeria was below average (Ugboaja, 2013).

Though Ugboaja’s (2013) assessment was based on the social effects of the policy on the transport sustainability, the economic outcomes are not farfetched as there exists a huge overlap and a sort of causal relationship between both spectrums. The recalibration of the 1993 NTP would have rendered its objectives measurable and perhaps made its intentions less vague in achieving a sustainable transport system economically, socially, and environmentally. Part of its failure was the under the facilitation of the operation by the government. The absence of proper facilitation stifles the aims that a policy is designed for as such operations usually vanish into obscurity. Subsidies, regulatory control, research, labour regulations, safety and operating standards are some of the government instruments to carry out transport policy (Rodrique, Slack, Rodrique, & Notteboom, 2017).

**RECs and Transport Policies**

In recent times, there have been great changes to infrastructure development and the transport modes. Sub-regional, regional, and international organizations have come up with a set of constructs and propositions to intensify the transport system in Africa. Road networks have significantly increased and many countries have also come up with road agencies and funds for sustaining the maintenance of the transport mode.

African countries also adopted road transport development plans some embarked on the initiative of integrating transport strategies with the poverty reduction goals; in 2007, eighteen countries completed their Poverty Reduction and Transport Strategy Review (PRTSR)(UNECA, 2009).

Actions have gained significant traction too concerning the rail mode of transport in Africa. The African transport ministers’ inaugural conference held in Brazzaville adopted the Brazzaville Declaration and Plan for Action on railways across Africa. Development and integrating regional and intracountry systems were the cruxes of the conference’s conversations.

In an effort to address the challenges facing Africa’s maritime transport, the first AU Conference of Ministers responsible for maritime transport held its Meeting in Abuja, Nigeria, during February 22-23, 2007 on the theme “The role of maritime transport in the development of Africa” (UNECA, 2009). The meeting birthed the Abuja Declaration and Plan of Action on Maritime Transport of Africa.

The Yamoussoukro Decision was made for the liberalization of the access to air transport market and modalities in solidifying institutional reforms were drawn.

**Trade Facilitation and Transport in Africa**

Scholars and international organizations tend to dispute over its definition but the classic view of the subject can be said to be focused on the removal of trade barriers to the movement of goods and in particular, on the procedures at and around borders (Rippel, 2011).

Open trade can be stimulated by trade facilitation between countries and some of its dividends are economic growth and poverty reduction. But the challenges facing many African countries have stymied their capacity for open trade. The problem, as stated earlier, is the cost of trading that remains high thereby preventing potential African exporters competing in global and regional markets. Even transportation of goods and services across borders are practically subjected to factors that militate against intracountry trade (Rippel, 2011).
In their analysis identifies new challenges to trade, which no longer arise predominantly from high tariffs but from barriers behind the border. The analysis surmises that a more comprehensive approach to trade facilitation looks at the costs that traders and producers face from production until the delivery of their goods and services to the overseas buyers and thereby includes all the transaction costs both directly and otherwise regarding the trading process.

Trade facilitation enhances regional integration through regional trade infrastructure and also bilateral agreement at the border. For example, the goal of one-stop border posts is to reduce paperwork and waiting times; this requires not only physical infrastructure but also detailed agreement on mutual recognition of process and procedures (Rippel, 2011).

(Rippel, 2011)’s analysis also notes that regional agreement could include trade facilitation measures like harmonization of safety and quality standards for products produced in the region. Official acceptance of documents and educational exams or degrees, licenses bode well for economic integration and reduces cost rates.

Trade facilitation locates similar inclinations on trade-related matters and aids the presentation of these challenges on the international front. Nonetheless, the demands well-concerted efforts in the aspect of data mining and raising standards that is easy to assess overtime.

The regional economic communities (RECs) have been active players as regards trade facilitation to achieve intra-regional mobility, trade, and economic growth. For example, the ECOWAS Green Card, which has replaced national passports, affords member states’ citizens to move freely to do business.

**Intra-country Transport System, a Microcosm of Intra-African Transport System**

Intra-country transport systems are a microcosm of regional transport systems in a structure. In the case that sustainable transport system subsists in corridors within a country, trade is expected to be efficient whether it is landlocked or not. Consequently, the fecund transport sector can yield job creation, responsiveness to environmental causes, and ease the cost of doing business. These are key indicators of economic efficiency.

Furthermore, a sustainable intracountry transport system accelerates integration on the heels of macroeconomics policies and planning. This will facilitate open trade between bordering countries and will make operationalization of decisions at the regional levels easy to domesticate since a similar or exact framework is on the ground. Intra-African trade accounted for about 11% of African trade globally in 2011 (UNCTAD, 2013). That is expected to significantly change trade between African countries increasing.

Intra-country and intra-African transport scenario is conditional, in a logical sense. The aggregation of reliable intracountry infrastructures within regions or sub-regions must necessarily precede a wider inclusive economic integration thereby opening the door of immense opportunities. This is the first step to a wider African market and the domino effect ultimately integrates a formidable African market with the global market.

At first glance, there is little to be optimistic for regarding Africa’s overall development- low connectivity between the over 50 countries that make up the continent, corruption, and the massive gap in wealth distribution. However, taking a look at the abounding potentials of individual nations, macroeconomic planning, and policies, that Africa can be everything it is currently not is very possible. Africa’s problems are mostly domestic and the setbacks for a broader integration are the gulf in infrastructures, institutional strength, and levels of
development. South Africa already has nearly US$400 Billion economy, the Democratic Republic of Congo (DRC), despite significant mineral resources and the fourth largest population in Africa, has an estimated GDP of less than $18 Billion (PWC, 2013). While countries cannot grow at the same pace, the regional economic communities are saddled with formulating models for their member nations to follow.

Conclusion

It takes some doing for Africa to leap from its infrastructural state; from political instability, border disputes, retarding progress in ratifying and implementing protocols, and the will to pursue consistent macroeconomic policies. Nevertheless, attention to domestic transport concerns is the key to unlocking the possibilities of internal trade and intra-African trade, by extension.

Governments must institute mechanisms for assessing the ratification and implementation of protocols, importantly legislations and RECs’ decisions that are disposed to transport (with other infrastructures) and macroeconomics. This is the solution to the persistent problem of governments’ hesitance to carry out regional resolutions and adopt protocols into legislations.

References


Onome, P. (2017, February 1). *There are notable gaps in our socio economic data framework in Nigeria. I see the potentials and skillset to get things done*. Retrieved September 29, 2017, from Twitter: https://twitter.com/poabaje/status/826853941002506240


UNEC. (2009). The transport situation in Africa. *Sixth session of the committee on trade, Regional cooperation and integration*, (pp. 1-20). Ethiopia.