

Full Length Research Paper

The need for multimodal transport development in Nigeria

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The role of multimodal transport in cost-effective trade facilitation across the globe is highlighted in this paper. The paper also emphasizes the developmental strategies been currently deployed in upgrading and integrating modes of transport in developed countries, which is primarily aimed at realizing seamless freight and passenger transport services. The policy gaps and financial constraints that hindered the multimodal transport development in Nigeria are deduced as the main challenge of standardized integrated transport infrastructure development in Nigeria. In conclusion, the Public-private partnership (PPP) business case is recommended for a sustainable integrated transport infrastructure and services development in Nigeria.

Key words: Multimodal, public-private participation, seamless, sustainability.

INTRODUCTION

Multimodal transport (also known as combined transport) is the transportation of goods under a single contract, but performed with at least two different means of transport. The carrier is liable (in a legal sense) for the entire carriage, even though it is performed by several different modes of transport (by rail, sea and road for example). The carrier does not have to possess all the means of transport and in practice usually does not, carriage is often performed by sub-carriers (referred to in legal languages as "actual carriers"). The carrier responsible for the entire carriage is referred to as a Multimodal Transport operator or MTO (Wikipedia, 2012).

Rawindaran et al. also affirmed that the terms, "through transport", "combined transport", "intermodal transport" and multimodal transport are all used in the

context of cargo movement from origin to destination, primarily involving the use of containers. These four terms are very similar meaning, that is, the transportation of goods by more than one mode of transport and a through single freight rate contract. According to UNCTAD, the concept of international multimodal transport covers the door to door movement of goods under the responsibility of a single transport operator, although the concept might not be new in the late 50s by Malcolm Mclean and his trucking operation.

Containerization contributes to a higher efficiency in the development of multimodal transport operation. In order to achieve efficient multimodal transport, intensive co-operation and co-ordination among transport modes are essential.

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According to Rawindaran et al., with containerization it has become increasingly difficult to define the boundaries of ships, port operators and inland hauliers. Thus, liner shipping companies are not only providing shipping services, but are now competing with hauliers and transport intermediaries to provide the inland leg of multimodal services on a door to door basis”.

This paper is divided into four parts. The first part consists of introductory part, followed by review of literature. The third part details the multimodal transport scenario in Nigeria, while the fourth section contains the recommendation and conclusions.

The problem

Notwithstanding the lofty objectives and benefits of multimodal transport system as stated above, the level of realization of the said objectives and benefits in the Nigeria transport sector is conspicuously remote. Because, the ‘stand alone’ transport planning and management approach, whereby budgetary allocations in the transport sector over the years neither prioritized modal integration nor considered transport development from modal complementarily point of view. Rather, budgetary allocations and implementations, in each of the existing mode of transport, are primarily considered by the successive governments from unilateral modal development perspective; hence, the rapid deterioration of the highway network and increasing fatality rate, high cost of transportation of goods and persons, inefficient energy consumption as a result road traffic congestion, as well as prevalent of air and noise pollution.

The aim of this paper therefore, is to highlight the international acceptable practices in multimodal transport development with a view to encouraging similar practices in terms of multimodal infrastructure development in Nigeria. However, the objectives are to: clearly define the multimodal transport objectives, highlight its inherent benefits, level of development in Nigeria and recommend accordingly better strategies for cost-effective multimodal transport development in Nigeria.

METHODOLOGY

The combination of desktop and observatory research methods is used in this paper. The desktop method was conducted through review of relevant literature as it relates to the conceptual definition, benefits of multimodal transport as well as international standards in terms of multimodal transport operations and infrastructure supply. It thus allowed for appropriate understanding of the basic UNCTAD minimum standard in terms of multimodal transport operations. Also, review of local literature as regards transport operations development as well as legislations helped to espouse the planning gaps between the basic minimum standard of developed countries and the prevailing operational and infrastructural supply in the Nigeria transport environment. The data collected through these methods are however presented in figures in the paper.

UNCTAD mandate and achievement in multimodal transport development

According to UNCTAD report (2012), the emergence of the container technology and of the multimodal transport concept came from and facilitated growing international trade. Trade and transport are inextricably linked: efficient transport services are a requisite to successful trading. Notably, international trade consists of using more than one mode of transport for many interfaces and modes are created in the process of moving goods from one country to another.

The United Nation conference on trade and development (UNCTAD), an organ of united nation is primarily mandated to promote international trade and economic development especially theses of developing countries. Apart from UNCTAD involvement in international legal regulation of maritime activities, it has currently expanded its scope of competence to embrace the entire spectrum of the transport sectors involved in multimodal transport operation and in the standardization of containers.

Over the years, UNCTAD has been able to record some achievements in international multimodal transport. Developments namely:

1. The elaboration of the multimodal transports convention (1980)
2. The elaboration of model multimodal container tariff rules.
3. Collaboration with the private sector in ensuring elaboration if new rules on multimodal documents.
4. The monitoring on behalf of technological developments in containerizations.
5. Organization of groups of experts to discuss issues on multimodal transport etc.
6. Implementation of technical assistance activities as well as the creation of awareness on the subject through the organization of workshops and seminars, conferences and over the world.

Multimodal transport pricing

The multimodal transport through rate is based on the tariffs for the 5 elements of its operation, namely:

- i. Inland transport to the port
- ii. Cargo handling in the port (transfer from inland transport mode to vessel).
- iii. Sea transport (maritime transport from one port to another)
- iv. Cargo handling in the port of destination (transfer from vessel to inland transport mode)
- v. Inland transport from the port of destination to the place of final destination.

According to Rawindaran et al. (Undated) ‘these transport elements were traditionally provided separately by

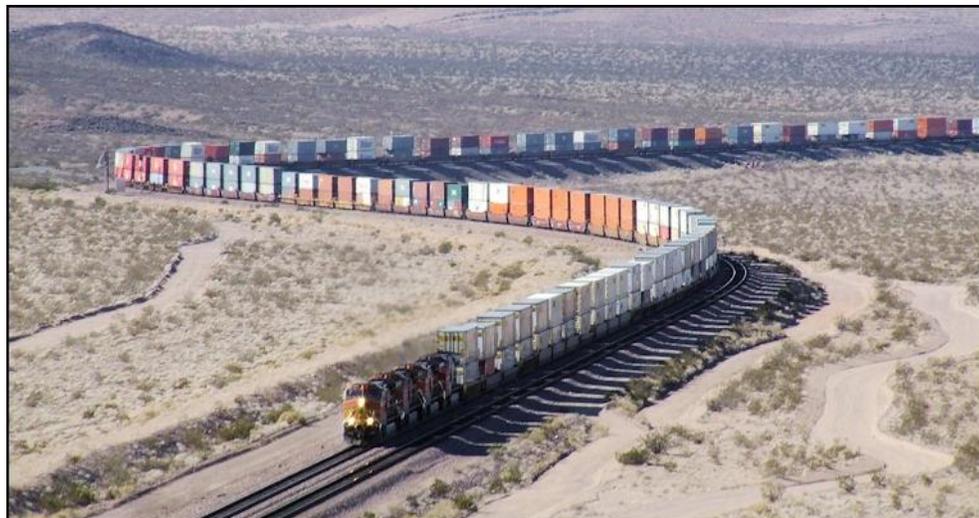


Figure 1. Double stacked container train.

various unimodal operators whether in the maritime or in the inland sector. Ironically, most of these elements are still being provided by unimodal operators. Hence the cost of freight movement and distribution is prohibitively high in Nigeria as well as in other developing countries.

Private sector initiatives in multimodal transport development in advanced economies

As a result of economic globalize shipping and particularly liner companies now find it necessary to form alliances and mergers with other liner companies as well with other land, rail ports, inland hubs and freight forwarding companies in order to serve these global customers (Frankel, 1999). Hence, today major customers demand and private sectors initiative in multimodal transport development in advanced economies get a one window integrated, just in to one and efficient all inclusive door to door service at pre-determined price. One of the accomplishments of the involvement of the private sector in the multimodal transport is the institutionalization of the concept of 'hub and spoke system' in multimodal transport operations in developed countries.

"Hub and spoke system" in multimodal transport operation

The 'hub and spoke systems' is a process whereby the inland move by carrier haulage between the oceans port and the hub (also called the trunk leg) is required to be made either by rail or inland waterways. Meanwhile, the inland move between the hub and the premises of the client (or the local leg) is usually made by road and is

often offered or arranged by the hub operator. This concept is a typical illustration of the multimodal transport system practice in Europe, introduced by a liner shipping conference called Trans-Atlantic Conference Agreement (TACA). The system emphasized the benefits of using rail transfer for movement from port to inland hubs instead of road (Figure 1).

TACA asserted that for transfers exceeding 150km, the economic advantage of rail out – weighted road transfer. Nevertheless, in order to arrange for a cost-effective rail transfer, there is a need for critical mass or else the rail transfer would not be an economic proposition.

Policy issues in multimodal transport

The Nigeria National Transport Policy draft of 2004 recognizes the needs for multimodal transport operation and development in Nigeria, if trade and commerce are to thrive cost-effectively across Nigeria. Hence, the policy objective of seamless, gapless and cost-effective transport operations is highlighted in the draft document. For such a policy would give transport users maximum flexibility to decide for themselves on the optimum use of combination of different modes in transportation of freight across the country, as it is practice in developed economies of Europe, North America and notable developing economies of China and India to mention a few. Although, the primary requirement for combine transport development in Nigeria will include the development of combined transport terminals across the country, such as trimodal terminals that consists of rail, water, road cargo handling facilities. Moreover, the draft transport policy would be expected to establish the regulatory and economic pricing environment that would

influence these combine transport regime by regulating the level of competition between operators within the same mode, for this is not the current practice in Nigeria today.

For instance, while the road sector in Nigeria is largely unregulated, which consequently allows operators to charge discretionarily freight rate depending on the level of demand from the market, other modes- such as rail, water and air transport operate under a stringent regulatory systems that fixed freight charges and other operational norm, therefore find it difficult to compete favourably in the freight market in Nigeria. In other words, there is no level playing ground for competition and for users to benefit from the cost-effectiveness, which is one of the principal objectives of multimodal transport in developed economies.

From the European perspective, the pivotal role of rail transport in multimodal transport is one of the factors engendering privatization in the rail sector, because statutorily regulated railways are finding it difficult to compete favorably with the trucking and barges industries. Hence, Great Britain and Sweden pioneered privatization and reduced government economic regulations; and consequently these countries rail operations are among the most efficient in Europe.

Multimodal transport development in Nigeria

The multimodal transport concept is being recognized, as an important component of the global logistics, in Nigeria. For instance, the enactment of the Nigeria Cabotage Act, 2003, development of Inland Container Depot, dredging of River Niger as well as seaports terminal concessioning and railway reinvestment and reforms are major evidence of the commitment of the Nigeria authority towards the realization of multimodal transport in the country.

Notwithstanding, the multimodal transport operation in Nigeria is still largely being impaired and under developed, because of the following factors;

- i. Lack of guaranteed scheduled services
- ii. Lack of cargo information systems
- iii. Lack of modern cargo handling equipment and methods
- iv. Poor road / rail links to ports
- v. Poor state of transport infrastructure

In as much as transport and trade are in inextricably linked, whereby efficient transport services are a perquisite to successful trading, Nigeria like all other developing countries of the world needs to address the multimodal transport development by ensuring it is private sector driven. Government should, thus, limit its primary roles to regulatory and coordination of the activities of the diverse stakeholders in the sector. Otherwise, bureaucracy and red-tapeism would discourage

and constrained the private investors from investing in the development of infrastructure that would engender the development of multimodal transport operation in Nigeria. But, if government and its agencies limit and/or play the role of multimodal transport facilitator, thereby partnering private investor in this regards, as well as creating an enabling environment for investment, it is then the Nigerian transport and logistics sector would be able to leap-frogged some of the technological innovation and advancement in the global multimodal transport operations, in terms of cargo handling equipment, communication, bimodal vehicles such as containers and barges, and piggyback (swap-body).

For in the present dispensation, DHL Logistics would find it difficult collaborating with the Nigerian Railway Corporation, let alone with the Inland Waterway Authority, from multimodal operating and/or investment point of view. This is as a result of the poor antecedent of government in business, especially in most developing countries. Rather, DHL Logistics would be more comfortable dealing with a private railway entity, as the practice is currently in developed economies.

Therefore, if the Nigeria government exhibit a total commitment towards a total overhauling of the transport sector through an holistic privatization of the freight flow channels in all modes of transport in the country, it is then the multimodal transport operations would impact positively on trade and economic activities in the country, as it were in advance economies. But, the authority in Nigeria would have to allow the private sector to drive the course of the expected development in terms of infrastructure and service supply, while government remain at the background monitoring and coordinating the activities of the private investors in the industry. This done, Nigeria trade and economic would start to benefit from the inherent advantages of multimodal transport operation, which include: On time cargo delivery, door to door movement of cargo, reduce cargo handling, cheaper overall transportation costs, increased safety and reliability of cargo arriving at destination.

RECOMMENDATIONS AND CONCLUSION

This paper has been able to present the best practices in multimodal transport investment and operations in advanced economies. Also, it presented the over bearing influence of government in the transport sectors, which negate the spirit of multimodal transport development, in Nigeria. Additionally, it agitated for an enabling environment for multimodal operation to thrive in Nigeria, which is only possible under a full blown Public Private Partnership (PPP) initiative in the transport sector in Nigeria. Unless this is done, Nigeria trade and economy activities, spatially distributed would continue to sparingly exist, but less competitive, while relying solely on its traditional segmented, disjointed unimodal transport

system that is already distressed, due to its over reliance on road mode for all regional and inter-regional transport and logistics operations.

Conflict of Interests

The author(s) have not declared any conflicts of interest.

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