

INLAND PORTS AND LINK TO ECONOMIC DEVELOPMENT IN GHANA: A LITERATURE REVIEW

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ABSTRACT

This paper presents a literature review highlighting the factors that influence the development of an inland port and its economic benefits to small communities in Ghana. A critical review reveals great research has been carried out to encourage planners and investors interested in understanding the various elements that are particular to a developing nation in the construction of an inland port. Further analysis reveals that several aspects of dependence on transit neighbors are also essential in highlighting the need for inland port classification.

INTRODUCTION

National and trade interdependency among West Africa countries has led to growth in economic and regional integration. A vibrant developing state is dependent on its link to the global international trade. Global economic integration has become means for countries to promote economic growth and development and to reduce poverty in West Africa [1]. The maritime transport space plays an important role in improving the efficiency of transportation, cost reduction and to improve regional integration in the region. [2]. Maritime transport is responsible for the transportation of about 80% of all commodities traded globally and the backbone for global transportation [3]. Estimated statistics prove that the cost of transporting commodities has fallen steadily from 30% to about 3.6% over 50 years, but this cost reduction has not been felt in the West Africa region mostly affected by corruption, lack of political will, political instability, landlockedness, and change in governance leading to the incompleteness of projects already initiated [4]. Any country, which has national access to the sea, has an opportunity to trade unswervingly in the international markets unlike those without national access to the sea referred to as landlocked [1]. To achieve the reduction of poverty in landlocked countries in West Africa, other countries such as Ghana, with less or no inland ports, need to accelerate plans to start developments of inland ports. Landlocked countries (LLC's) engage in international trade through their neighboring coastal states. Predominantly French colonized countries are found in West Africa. Three (3) out of sixteen (16) West Africa countries are landlocked. These are Benin, Mali and Burkina Faso and they rely on predominantly French colonized transit state existing in the region due to similarities in culture, currency usage, legislative interpretations and political language. [6]. With only (3) LLCs found among 16 countries, this offers a considerable opportunity for alternative transit corridor choices [7]. However, additional factors that affects the need for an inland port to support LLCs are; the high cost of constructing, maintaining new transit corridors, and political stability. New countries such Ghana can gain competitive advantage in becoming a strategic transit state in West Africa if so desire. Anglophone countries in West Africa like Ghana and Nigeria has been left out of the transit trade as far as the landlocked hinterland is concerned over the years [16]. However, as time went by, transport and communication networks improved, ECOWAS and other regional cooperative efforts were also embarked upon broadening the sources of supply of maritime services [6]. The political instability experienced in the sub-region of some West African states particularly the traditional corridors of the LLCs made it strategically and economically unsafe for LLCs to rely solely upon their traditional corridors for trade transportation. According to [8], Mali's 70% of imports

and exports apply the ports of Abidjan and the new routes that had to be initiated due to the insurgency, cost Mali an estimated additional trade transportation cost of US\$130 million. Burkina Faso which find itself south of Côte d'Ivoire incurred an estimated unrest cost of US\$ 30.4 million dollars in revenue and customs duty. Ghana has enjoyed a relatively peaceful political transition over this same period yet failed to become a strategic partner in helping these LLC's nation in West Africa that are notably the least developed nations in the region [9]. In order to affect the economic development of LLCs, there has been a deliberate formulation of national strategic policies by LLCs to use other transit corridors in addition to their traditional ones [6]. The objectives of this paper are to; (1) investigate the site under consideration for an inland port in Ghana, and (2) present a literature review on how inland ports in Ghana can provide a more efficient trade route to landlocked neighbors as well as zoned industries or businesses to improve the Ghanaian economy. Gaps will be further highlighted on how this economic growth will accompany Ghana's landlocked neighbors economic development and the development of railway lines in Ghana.

LITERATURE REVIEW

Ghana newly expanded port is a place where international trade is processed and shipping facilities are provided to distribute goods. For this reason, the Tema port can be a site that "facilitates and engenders trade and transportation by virtue of its locality, business climate and facilitating services and infrastructure, as well as its attitude toward development [10]. However the location and expansion of Tema port can lead to increase congestion and pollution leading to harmful effects of the inhabitants around the port area. The establishment of an inland port has been encouraged by technical experts and investors over the past years. An inland port is a rail or a barge terminal that is linked to a maritime terminal with regular inland transport services. The Ghana inland ports when completed will support more efficient access to the inland market. This implies an array of related logistical activities linked with the terminal, such as distribution centers, depots for containers and chassis, warehouses and logistical service providers [12]. Presently the construction of the Boankra inland port will serve as a link to landlocked countries of Burkina Faso, Mali, and Niger and also ease congestions in Ghana seaports hence facilitating trade between neighboring countries. Therefore, the concept of inland port is polymorphic, implying that it can have different meaning depending on its location, connectivity, and role and function [12, 13]. Inland waterway ports are classes of ports listed by virtue of its inland location and volume of goods transported [14, 15, 16, 17]. The Port of Venice is another example of an inland waterway whilst Canaveral port is a typical feed water inland port [18, 19]. Landlocked countries have no territorial access to the seas, limited border crossings and transit dependence [20]. Landlocked developing countries are developing countries that lack territorial access to the sea and are faced with the double encounter of development and access to international markets [20]. The concept and functions of an inland port have been in existence for many years in developed countries. Early commerce in Europe relied on inland waterways to transport primarily agricultural products between seaports in larger urban areas and the farming regions of the hinterland during the industrial revolution [21]. Large inland terminals were also developed during same period with the links to continental railway systems [22]. The first group of U.S. inland port established by the mid-1990s appeared to focus on the projected growth in airfreight transportation [23, 24]. The opportunity for economic development through the creation of an inland port gained strength in the US, and by 1995, several sites were being promoted with varying degrees of success as inland ports [25, 26]. The history of inland ports in Ghana however ever does not relative exist, as few countries in West Africa can boast of inland ports in the region even though the some sites have been technical accessed and political advertised as potential inland ports since 2003.

Tema port expansion just recently completed as a maritime shipping network zone has not been enough to deter the need for an inland port in Ghana as transport development in gradually shifting inland due to the complexity of modern freight distribution, increased focused on intermodal transport solutions and capacity issues [27]. In Central Africa, the Nigerian Ports Authority has provided guidelines to link both Niger and Chad (landlocked Central African countries) with two inland ports and plans to development more and revitalized the transport system [28, 29]. There are 31 landlocked developing countries (LLDCs) worldwide: 15 are located in Africa, 12 in Asia, 2 in Latin America and 2 in Central and Eastern Europe. LLDCs are paying around 50 percent more in transport costs than coastal countries, and have up to 60 percent lower

volumes of trade [20]. Numerous challenges are faced by landlocked countries, hence a need for provisions and initiatives to overcome economic trade hindrances [20]. A successful inland port can generate direct economic benefits as well as indirect benefits on a state's economic structure and development [21]. Consumers, in turn, can benefit from the reduced logistics costs made possible by a nearby inland port since the cost-savings experienced by local retailers are passed on to consumers in the form of lower prices [21]. With globalization of trade, there is a significant increase in world container trade over the past two decades [30]. This has resulted in increased capacity of container ships and the capacity of container terminals, there is a need to carryout effective research to identify the effect on increased trade on inland ports. Investments in infrastructure and transport entities, reduces the negative environmental impact, and meets client requirements for faster & efficient transportation of goods [31, 32, and 33]. This typical scenario led to the need for china to become more innovative with the use of seaport terminal to push blocks of containers inland, to alleviate congestion [34, 35]. In spite of technological improvements in transport, landlocked developing countries continue to face structural challenges to accessing world markets. [36]. Due to their remoteness; landlocked countries are dependent on neighboring transit countries for their external trade and suffer from high trade transaction costs coupled with inadequate infrastructures, inefficient customs, and administrative bottlenecks [20]. Landlockedness in African countries often coincides with other factors such as remoteness from major markets, difficult topography, and desert ecology [37]. The economic viability of landlocked nation's neighboring country needs adequate infrastructure, sound cross-border political relationship, peace and good administrative practices [38]. In extreme cases, where countries may be very isolated due to a blockade, political challenges have a much more severe effect on human development than lack of infrastructure [39, 40]. The landlocked countries in West Africa has been particularly affected by neighbors' internal conflicts [36]. Côte d'Ivoire's main port was key to business in landlocked countries to the north when the insurgency in Côte d'Ivoire started in 2003 [1]. Mali and Burkina Faso specifically had to do without access to Abidjan and use unfamiliar ports, such as Cotonou in Benin, Tema in Ghana, and Dakar in Senegal [1]. Togo was devastated by violent political protests and deep internal conflict in the early 1990s Ghana suffered from ethnic violence primarily between 1993 and 1994 [9]. Guinea been stricken by a series of coups and rebel wars [39]. The legal framework for transit transport in West and Central Africa is based on international and domestic law instruments establishing good administrative practices in supply chain management and administration in line with any internal conflicts [7]. Inland ports development in Ghana will play a key role in efficient supply chain management which are set of approaches utilized to efficiently integrate suppliers, manufacturers, warehouses, and stores, so that merchandise is produced and distributed at the right quantities, to the right locations, and at the right time, in order to minimize system wide costs while satisfying service level requirements [41]. Logistics which is part of the supply chain process that plans, implements, and controls the efficient, effective flow and storage of goods, services, and related information from the point of origin to the point of consumption in order to meet customers' requirements will also be improved in Ghana due to the development of an inland port [42]. Although the inland port can be in place, there is a need for the government of Ghana to create or revise its transportation policies that focuses on the transportation capacities demanded by efficient supply chain strategies, improvements on national productivity, global competitiveness, and economic growth in Ghana [43]. Inland ports development in developing countries can provide the means to eradicate some transportation-related waste associated with inefficient supply chains [44]. As supply chains become more complex, companies do not only look for ways to reduce the number of links in the chain to minimize transportation costs but ways to reduce links by other means such as the use of inland ports [25]. The elimination of links can be accomplished at an inland port where value added services are provided amidst strong transportation capabilities [25]. An inland port can be seen as a location where transportation capabilities, combined with value-added services, can allow business to compete more effectively. Inland ports have the potential to impact local, regional, and national trade and transportation corridors [25]. This literature review presents a model (framework) which will aid in presenting the critical parameters necessary for identification and classification of an Inland port, precisely for the currently abandoned Boankra Inland port in the Ashanti region of Ghana and its possibility to enhance the economic growth of Ghana's landlocked neighbors. The parameters presented in the model framework will present a foundation block for building the necessary methods to adapt in collecting data to support and establish a firm basis for each parameter within

the framework. Many of the factors expressed in the framework is as result of various explored published article on critical needs necessary for ports operations as well as critical needs identified by individual involved in port operation. Due to the research aim, objectives, availability of resources and required research time the framework is limited within a scope or boundary, parameters such as legal requirements, technological requirements, feasibility of the inland port and development life cycle of the inland port are not being considered in the framework. According to [45], private entities rely on various factors to locate new intermodal terminal and in selection of a site. The private sector invests in large metropolitan areas due to the higher market potential of these locations [45]. For smaller communities, strong public promotion is needed to successfully draw private-sector development [25]. Before beginning the steps to market a small community, there is need to further investigations on [45,46]; (1) sufficient demand for intermodal freight transportation, (2) local supply of competitive motor carrier services, (3) practical basis for successful community relations and, (4) adequate public/private sector capital to fund development [45, 46]. Factors for consideration when locating manufacturing and distribution facilities has been investigated as a critical need for companies that influences the need of an inland port [47]. These include; physical infrastructure, proximity to suppliers and customers, political and tax considerations, and international trade considerations [47]. Further checklist for port selections include factors such as location, cost, services, reliability, time, security, labor, infrastructure, customs, facility, environmental issues, and foreign trade zone [48]. It is evident from various literature review explored that the critical needs enumerated for the successful location and construction of an inland port are presented in Figure 1.

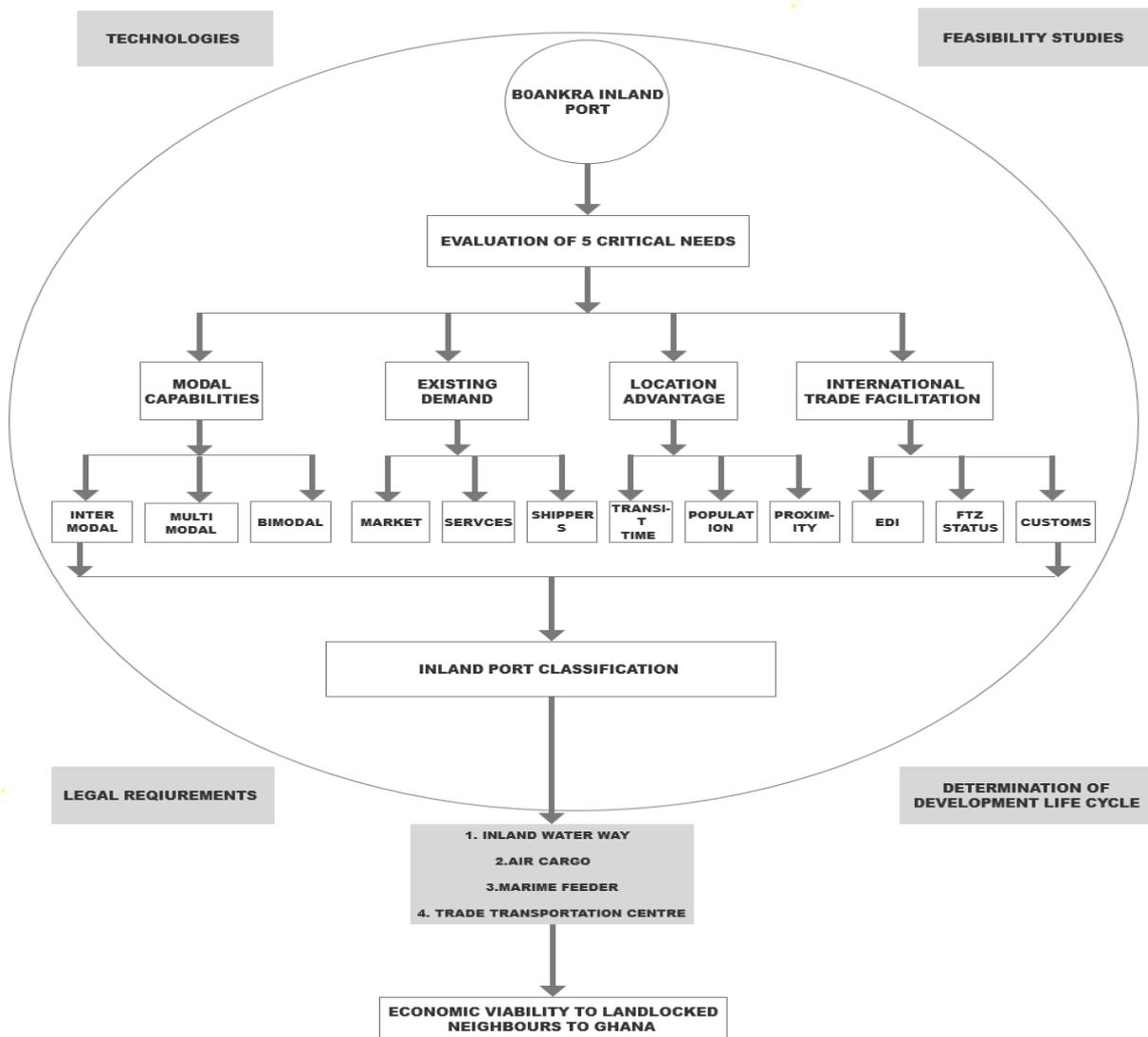


Figure 1: Economic viability of inland ports in Ghana framework

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