

Analysis of the Competitiveness Factors of the Port of Cotonou in the Economic Growth of Benin

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ARTICLE INFO	ABSTRACT
Publication Online: 29 May 2019	The present work examines some contributions for better competitiveness of the port of Cotonou and its importance in Benin's economic growth. The methodological approach used is based on data collection, desk research and fieldwork. The results are analyzed by the FFOM method. Cotonou port users estimate more than 50% improvements in the quality of services, quality of infrastructure and equipment, and the quality of access roads. 74% of port stakeholders deplore the slowness of cargo handling operations. The port of Cotonou is confronted with the exacerbation of competition (72.1% port of Lomé, 10.6% port of Téma, 8.4% port of Abidjan) which inhibits commercial development and in particular reduces port traffic in certain markets.
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I. INTRODUCTION

Information and communication technologies (ICTs) are one of the most important choices for port competitiveness and the opening up of a nation's economies to private investors. The importance of maritime transport in the globalization of trade seems obvious (Allagbé, 2014; Guillaume, 2008), since the bulk of international trade goes through the sea (90 % of total) and at lower cost (UNCTAD, 2013). Maritime transport is a very important link in international trade, as the bulk of trade between countries passes through the sea. Between Africa and other continents, maritime trade represents 95 % of exchanges (Jeune Afrique, 2012). This is the importance of maritime transport in the economic development of African countries in general, and those of West Africa in particular.

It is no longer to be proven that the innovations resulting from the association of ICTs in the efficient maritime transport sector are essential to the growth of trade in sub-Saharan Africa (UNCTAD, 2011; Lihoussou, 2014) and that it constitutes the voice of access to new markets and new opportunities. It helps to integrate small and medium-sized enterprises (SMEs) into the international supply chain, thereby encouraging export-led economic growth, which is essential for large-scale poverty reduction. Ports are doors open to the world, they are of strategic, economic and military interest (Guerlet, 2013) which need ICT today to support the development and power of their territories. The shipping industry and port management have changed dramatically over the past decade through new and

advanced technologies. These changes have begun to have an impact on sub-Saharan Africa and will continue to influence the port sector and shipping in the region (Harding, Palson and Raballand, 2007).

The Beninese economy remains dependent on foreign trade, and in this context, the port could play a decisive role as a commercial hub for the export of Beninese products to the countries of the sub-region (Amoussa and Hounsinou, 2009). However, in constant competition with the ports of the sub region, the Cotonou Port Authority has the obligation to produce reliable, efficient results by introducing new generation ICTs with modern equipment in the port infrastructure. Port and political leaders at various levels must therefore reposition shipping as an element of accelerating economic growth in our country.

In this regard, this study aims to better analyze the factors of competitiveness of the port of Cotonou in Benin's economic growth through the introduction of ICT in its port management system.

II. STUDY AREA

The frame of this study, named for the port of Cotonou built from 1959 to 1965 and put into service in August 1965. Located at 6 ° 11'22 " North and 2 ° 26'30 " East, the Port of Cotonou is located on a low sandy coast on the southern edge of the city of Cotonou, the economic capital of Benin (PAC, 2008). Port with regional vocation and ocean gate of Niger, it turns out to be the outlet to the nearest sea, with the fastest access corridor, the least rugged to serve the East of

the landlocked countries, Mali and the Burkina Faso. In the sub-region, this port is approximately equidistant from the ports of Lagos (Nigeria), 115 km and Lomé (Togo), 135 km. It is the closest and fastest relay and transshipment port to the west of Nigeria.



Figure 1: Partial view of the facilities of the Port of Cotonou

DATA AND METHODS

2.1. COLLECTION OF DATA

Data collection was done using two methods that involved the use of physical documents available in libraries, from port entities and online and then from field surveys in order to obtain data classified into quantitative and qualitative variables.

2.1.1. COLLECTION TECHNIQUES

They relate to documentary research through documentation centers and fieldwork in the field.

2.1.2. SAMPLING

The choice of the sample depends on the involvement of each actor in the port activities. Considering the density of the actors involved and the extent of the study environment, it was possible to define a certain number of parameters for the sample thanks to the technique chosen by the main groups of shippers, forwarders and consignees. We have developed a questionnaire addressed to 200 agents according to the socio-professional groups and who are as follows 110 Freight Forwarders, 60 Loaders and 30 Consignees.

2.2. DATA PROCESSING

This work phase is done in two ways namely manual processing and software-based processing. For the processing of the data we proceeded to the control of the correct filling of the questionnaires, the codification of the sheets of surveys, the treatment is done manually and the data entry is made in various software's such as Excel, Access and Statistical Package for Social Sciences (SPSS) which allowed us to draw up tables and graphs; Word software for word processing.

III. RESULTS AND DISCUSSION

3.1. CONTRIBUTION OF THE PORT OF COTONOU TO THE ECONOMIC DEVELOPMENT OF BENIN THROUGH INFORMATION AND COMMUNICATION TECHNOLOGIES (ICT)

With the modernization of the port infrastructure of Benin in its last years by the political will of the government though the acquisition of the appropriate technologies and the computerization of most of its management and communication system, the Port of Cotonou has seen an improvement of its two big streams that of the ships on the one hand and that of the goods on the other hand. The flows or traffics in the port territory are indices of economic activities. They make it possible to gauge the importance of trade, as well as the financial effects or effects that they generate on the transport chain. The Autonomous Port of Cotonou (PAC) saw an increase in its activity volume of 19.33% in 2014, container traffic progressing by 19.42%. This very strong increase (the activity went from 5,152,859 tons in 2005 to 10,547,445 tons in 2014) is leading the port to become saturated, requiring new investments. Hence the need to have visibility of these different flows.

3.1.1. EVOLUTION OF SHIP TRAFFIC

The structuring of port traffic enabled the registration of 1,279 commercial vessels. The evolution of ship traffic at the Port of Cotonou during the period 2005-2014 is illustrated in Figure 2.

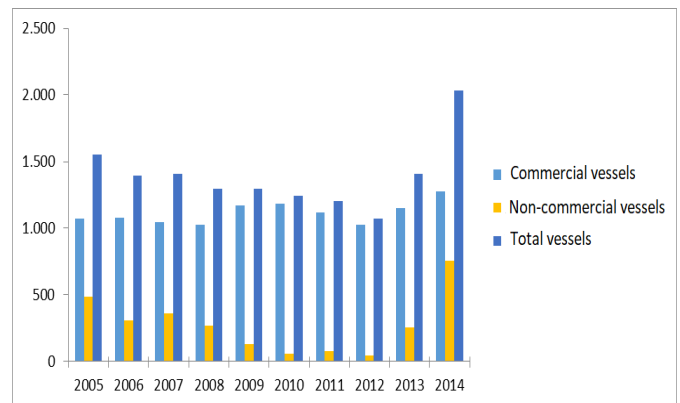


Figure 2: Ship traffic from 2005 to 2014

Source: Port Authority Statistics 2005-2014.

Ship traffic has been on a downward spiral since 2005 and shows a strong increase of 44.3 % In 2014. This situation is explained by the increase in non-commercial vessel stops in general (especially other ships the frequency of call largely increased compared to previous years and some trawlers). Commercial vessels occupy a dominant share of maritime transport via the port of Cotonou 2,033 vessels were registered at the port of Cotonou in 2014, of which 1,279 vessels were commercial vessels 63 % of the total amount of ships, with a predominance of container ships followed by oil tankers and tankers.

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Porte-Conteneurs (50%)	Porte véh & Ro-Ro (23%)	Tankers (11%)
		
641 escales	296 escales	146 escales
Variation 2014/2013 (+30%)	Variation 2014/2013 (-6%)	Variation 2014/2013 (+7%)

Figure 3: A few stopovers of merchant ships

Source: Vissienon, A., 2014

From all the foregoing, it appears that the port of Cotonou is a port of commercial service, therefore trade in terms of import and export of goods. These are providers of foreign currency for the various actors in the transport chain, upstream as well as downstream. Container ships are those that demand more commercial and logistic services (Almeida, 2009).

3.1.2. EVOLUTION OF GOODS TRAFFIC

Controlling the flow of merchandise and its traceability was possible thanks to certain elements of the TIC (scanner, digital imagery and internet). The forecast of the traffics was done by means of GPS, video camera, radar and others. All this has helped secure trade and travel. Figure 4 (below) shows the evolution of the traffic of goods that are imported and exported through the port of Cotonou from 2005 to 2014.

Freight traffic rose by 19.33 %. This increase in traffic is attributable to both imports and exports. Merchandise imports rose from 7,956,732 tons at the end of December 2013 at 8,948,220 tons at the end of 2014, representing a growth of 12.46 %. As for exports, they experienced a sharp increase of 1,599,224 tons in the year 2014 against 882,287 tons in 2013 or 81.26 %. On the import side, the bulk of the traffic is in food products, hydrocarbons, solid bulk and vehicles and parts. On export, it is mainly cotton and its derivatives, cashew nuts and wood of very low tonnages. It should be noted that exports remain very marginal in the face of imports into Benin.

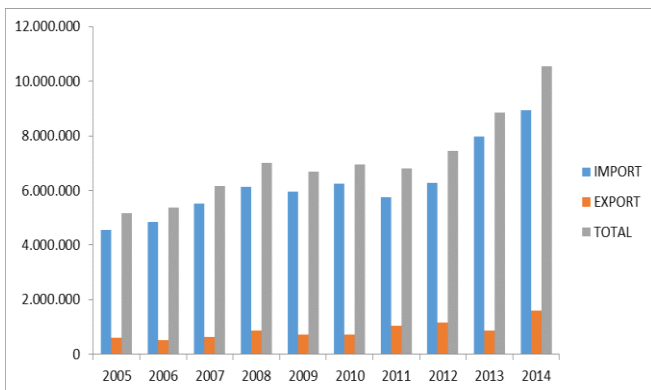


Figure 4: Goods traffic from 2005 to 2014

Source: Port Authority Statistics 2005-2014.

The evolution of freight traffic over the last ten years, has progressively evolved from 2005 to 2008 then slight falls in 2009 and 2010, the last three years are marked by strong growth. The increase in imports and exports is caused by measures taken by the port authorities backed by the Beninese government, to facilitate the development of port activities and to ease the procedures for the removal of goods. Eliminating all obstacles to the speed of port operations. These measures have helped make the port of Cotonou more attractive and more competitive.

3.1.3. EVOLUTION OF THE TRAFFIC PER USER COUNTRY FROM 2005 TO 2014

Here, Figure 5 illustrates the traffic of the hinterland countries (Burkina-Faso, Mali and Niger) and Nigeria which are the major users of the port of Cotonou.

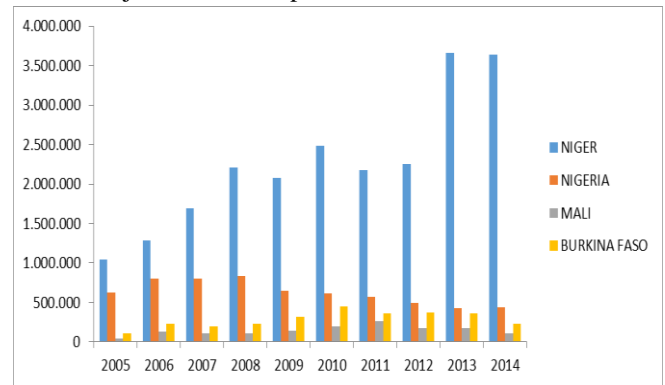


Figure 5: Traffic by user country from 2005 to 2014

The distribution of total merchandise traffic between the user countries of the port of Cotonou reveals a greater use of the port of Cotonou by the hinterland countries as well as Nigeria. The share of transit traffic in total traffic increased from 54.31 % at the end of December 2013 at 42.05 % of the year 2014. The three most user countries of the port of Cotonou during the period of our study (2005 to 2014) are Niger, Nigeria and Burkina-Faso. The Republic of Niger is the first user of the port of Cotonou with 3,633,212 tons in 2014 against 3,656,925 tons in 2013, a drop of 0.65 %; second place went to the Federal Republic of Nigeria with 443 491 tons in 2014 and 431,151 tons in 2013, or 2.86 % of increase in traffic; the third position is occupied by the Republic of Burkina Faso with 224,323 tons in 2014 against 355,992 tons in 2013, a significant decrease of 36.99 %; the Republic of Mali is in fourth place with 106,153 tons in 2014 against 176,589 tons in 2013, a decrease of 39.89 % of their traffic by the port of Cotonou. Niger's domination of the port of Cotonou is explained by the fact that the port of Cotonou is Niger's natural port given the geographical position of Benin, practicability of the terrain, the distance from the Cotonou corrido to Niamey being shorter than other corridors to competitive ports.

It should be noted that Benin is geographically well located to take advantage of its position through maritime logistics and port services. In addition to its access to the sea for its

own needs in terms of import and export flows, Benin is an important gateway for the landlocked countries of the neighboring hinterland of Niger, Burkina Faso and Mali. It is also bordered by Nigeria, the most populous country in Africa, with whom it shares a long border.

3.2. THE FACTORS DETERMINING THE CHOICE OF THE PORT OF COTONOU

From the examination of our questionnaires, it appears that port users (consignees, shippers and freight forwarders) have the main port of Cotonou. The busiest ports except Cotonou are: Lome (72.1 %), Tema (10 %), Abidjan (8.4 %), Lagos (5.8 %) and Dakar (3.1 %). Most of the respondents have a good appreciation of the quality of services, infrastructures and equipment and the quality of the access routes, above the average of 50 % compared to previous years. Nevertheless, the shippers and the consignees make a statement of the degradation of the access roads at the rate of 50.0 % and 53.3 %. Unanimously, the users mainly take into account the assets available to the port of Cotonou such as: good geographical location of the port (28,3 %) and a natural port of Niger through geographical position the political stability of the country (21,3 %) since the years 1991 have favored the increase of the port traffics but since the socio-political stability of Togo, there is a strong deviation of the Beninese traffics in favor of the port of Lomé near the big Nigeria market for transshipment acceptable port charges acquisition efforts of handling equipment in recent years.

But the port of Cotonou has weaknesses that push these different users to look for other ports to serve them, we can remember frequency of vessel calls (22.4 %), the quality and reliability of transit services (21.2 %), the short transit time (20.1 %), in addition, chargers (28.0 %) and the consignees (19.7 %) focus on the quality of equipment and infrastructure of the new generation.

3.3. PERCEPTION OF RESPONDENTS ON THE REFORMS INITIATED IN THE PAC

The Beninese government of 2006-2016 concerned and aware of the contribution of the budget of the port of Cotonou in the Beninese economy and in the social life of its population has initiated reforms to improve the practices and management of the port sector, the lung of Benin's economy. Overall, port users have a favorable opinion (66.0 %) of reforms undertaken by the Beninese government in the port of Cotonou. Some reforms are entrusted to the Single Window Operating Company in Benin called SEGUB for their implementation for the smooth running of port activities and to face competition from other ports of the sub-region. The SEGUB is a tool for securing and facilitating trade, simplifying and speeding up customs clearance, transshipment and transit operations for all actors in the port sector. To the numbers of these missions we can quote reduction of the costs and deadlines for carrying out commercial and logistical operations (87 %), creating of an environment favorable to the

competitive economic operators of the port areas (86,5 %), simplification of procedures and formalities for the entry, exit or transit of goods (85 %), improvement of the efficiency of the port logistics chain (82 %), improvement of transparency in business relationship administration (81 %) and reducing of corruption at the CAP level (52.5 %). All the port stakeholders surveyed are unanimously in favor of the tasks performed by this autonomous structure. But it happens that during the operations, the users are sometimes confronted with problems which slow down the good progress of the reforms engaged by the harbor authorities, due to the delay of the emission of the invoices by the official structures concerned (CNCB, Customs, PAC and STTB) is 28.6 %. This situation requires them to negotiate with each structure, the rapid establishment of its bill to avoid additional guarding costs or demurrage; thus, the corruption (23 %) that we wanted to avoid is brought back to life within this system. The internet connection within the port entity is of very poor quality (19.9 %), which is a major delay for freight forwarders in carrying out their duties. It is urgent that the government take prompt and adequate measures to correct this state of affairs because its structures, which should make it easier for port actors, would be the most corrupt. In the order of the respondents' statements, we have the PAC (54 %), CNCB (23 %), the Customs (15 %) and the STTB (8 %).

The synthesis of the strengths and weaknesses associated with environmental opportunities and threats, drawn from the interviews and questionnaires makes it possible to present the SWOT matrix for the port of Cotonou.

Table 1: Strengths /Weaknesses, Opportunities /Threats (SWOT)

Strengths	Weaknesses
<ul style="list-style-type: none"> • Geographical location • Speed of operations thanks to the One Stop Shop • Acceptable port costs • Portico operations 	<ul style="list-style-type: none"> • Insufficient equipment and infrastructure • Corruption and hassle • Too much political interference • Inefficient handling
Opportunities	Threat
<ul style="list-style-type: none"> • Good position in Niger and Nigeria markets • Sociopolitical stability and security • Acceptable road networks • Railway rehabilitation by Bolloré Logistics Africa Group 	<ul style="list-style-type: none"> • Administrative heaviness • Political interference • Permanent Nigerian threat • Construction of the future port of Badagri (Lagos Port Complex)

Source: (Padonou, 2015)

3.4. MALFUNCTIONS IN HANDLING OPERATIONS

Administrative harassment in Benin especially in the transport sector hinders the fluidity of business. Storage goods on port finish for lack of slow or administrative corruption entrained delays, demurrage and insurance additional costs and hinders the performance of the transport chain (Alix, 2018). ICTs will enable the transformation of port terminals and port infrastructures. The majority of respondents believe that the slowness of cargo handling operations due to the inadequacy of high-performance equipment (43.5%) and 17.5% would be attributable to congestion in the areas of operations by large aircraft. This could be explained by the monopoly of the business sector by three companies including two private companies (COMAN SA of the MAERSK APM group and SMTC of the BOLLORE group) and another public company, SOBEMAP which have difficulty in obtaining expensive point equipment. The non-qualification of technicians to ensure the maintenance of equipment maintenance and the obsolescence of existing equipment.

The congestion of the areas of operations by the big carriers would be due to the mismanagement of the port space:

- No parking lot for loaded trucks waiting for exit formalities;
- Insufficient dry ports;
- Consider the transfer of used vehicles through a specialized exit.

3.5. RECOMMENDATIONS

✓ CONCERNING THE PROBLEM OF CHOOSING THE PORT OF COTONOU

A better knowledge of the clientele is essential for the port authorities, because the customers are means to convey and sell the good image of the port of Cotonou, just as the role of the mass media is not negligible. The Department of Commercial Action and Cooperation must, through its competent department, invest in:

- address to the media in the hinterland countries for the most-watched commercials;
- to sponsor the diffusion of some TV films in order to make better known the port of Cotonou;
- to descend regularly in the user countries of the Port of Cotonou in order to conquer new markets;
- take into account the recommendations and suggestions of the Co-ordination Committee for Port Activities (CCAP);
- organize quarterly open houses to explain to visitors and guests, the operation and mission of various port administration services;
- sensitize and train administrative staff so that everyone plays their role properly.

✓ CONCERNING THE PROBLEM OF SLOW HANDLING OF GOODS

The established diagnosis reveals that the real causes at the root of this problem are the lack of efficient equipment and the congestion of the areas by large aircraft. To help the

leaders of the handling companies eradicate these causes, we propose:

- study, prior to the acquisition of handling equipment, the market for such equipment with a view to the selection of large firms (equipment suppliers) and enter into partnership with them in order to benefit from better conditions for the acquisition of high-performance equipment responding to current traffic and technology;
- solicit from the public procurement unit a more flexible mechanism that can be used to acquire equipment in real time;
- regularly involve the maintenance agents of the machines in periodic trainings organized by the manufacturers in order to guarantee a good maintenance of the machines;
- set up a system to study the depreciation of handling equipment in order to define the plan for their renewal;
- take steps to permanently free the platforms so that the trucks do not slow down the speed of handling the machines.

However, to eradicate the cause of port congestion, we want to remember that the port authority is the most appropriate in that it is to it that the management of the port area is the responsibility. That's why, the leaders of the CAP must make every effort to satisfy port users to better regulate the entry of trucks into the port area and ensure that any truck entering port comes out after a set period given the importance of the cargo to be loaded or unloaded.

- speed up the completion of the dry port of Parakou;
- proceed to the creation of a dry port in an area no less distant from the port destined for the unloading of groupage containers and the stuffing of export containers;
- redistribute land in the port area and use unoccupied land;
- put online a zoning and circulation plan at the Port of Cotonou.

✓ REGARDING THE REFORMS INITIATED IN THE PAC

For the improvement of the reforms undertaken by the Authorities, in order to make the port of Cotonou more efficient and competitive. It is necessary:

- To urge the various Authorities and official structures involved to rapidly issue invoices in the system within a timeframe that will be rigorously respected;
- to build a single center for the establishment of a single billing for more adapted port formalities;
- urge all actors involved in this area to play their full role;
- grant approval to all banks and bank branches to facilitate the payment of BFU by DACs;
- provide a single point of access for a high-speed and reliable connection;

- strengthen the SEGUP by its computer system to avoid any breakdown of the system, because the day when it will not work, there will be no port activity in BENIN;
- automatically inform all stakeholders of the various changes that SEGUB makes to its services.

IV. CONCLUSION

The port of Cotonou as a whole is an important instrument for promoting Benin's economy, which is why it is commonly known as "the lung of the economy". It is an important crossroads for Benin and sub-regional trade and a pole of growth. While the ambition is to demonstrate how changing practices and attitudes on port management to transform can and must help new Information Technology and Communication (ICT) on the market and adequate our West African environment. As a result, it is open to trafficking in order to be the engine of economic development. The competitiveness of a port is a permanent quest. In this respect, all initiatives that can contribute to it will be welcome. A port for countries with a maritime facade is a major asset for the development of their trade and therefore their economy. Without this natural space, trade from one continent to another or even the transport of raw materials and finished products at competitive costs would be impossible.

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