A Critical Analysis of Seaport Development in Pre and Post Concession Eras: A Case of the Apapa Port

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Abstract
Maritime endowment and demographic profile have been a steady record of the increasing growth of Nigerian seaports. In light of growing importance of seaports, this study examines seaport development in Nigeria focusing on the Apapa port, Nigeria's Premier Port. Relevant primary and secondary data were acquired and analysed using qualitative and quantitative analytical techniques. The study assesses the output parameters as performance indicators for pre-concession (between 2000 and 2005) and post-concession (between 2006 and 2014) eras. The highest ever of cargo throughput in the history of the Apapa seaport was recorded in the second year of the post-concession era with approximately 27,913,005 tonnes. The average time awaiting berth for the pre-concession period (2000-2005) was 1.26 while the average waiting time for post-concession period (2006 – 2012) was 1.2. The average turnaround time for the pre-concession period was 15.56 days while the average turnaround time for the post-concession period was 8.76 days. This shows a significant improvement in the time spent (7 days) at the berth in the post-concession period. However, a lot still needed to be done to attain the international standard of 48hrs. This was made certain by the increase in the speed of service provided by the new port operators. Following the upsurge in cargo throughput in the post-concession era, government at the federal level should be proactive and use the present data to plan for the future development of the Apapa seaport. The federal government should equally take legislative and policy measures for the port system development.

Key words: Apapa Port, Congestion, Concession, Throughput, Development

Introduction

Nigeria is one of the maritime nations strategically located with enormous coastal resources and a high population density. These advantages have given the industry an edge over other African countries and maritime nations. In addition, these have made the Nigerian ports the hubs of vessels. Being an interface between land and

maritime transport, the seaport is very significant to the Nigerian economy as practically all her imports and exports move through the seaports. The importance of the seaports is attested to by the fact that approximately 90.0% of the Nigerian imports and exports are sea-borne. Additionally, Nigerian ports control 60% of imports in West and Central Africa (Oni, 2008).

The seaports have substantial influence on the volume and conditions of Nigerian international trade as well as the capability for economic development as a developing nation (Oghojafor, 2012). Apart from being the major gateways, the seaports play a strategic role in the country's economy. Nigerian ports represent the second largest source of revenue generation after hydrocarbon products (NPA, 2015). Thus the growth and development of Nigeria's seaports represent an important component of the overall development of the country.

Over 70% of Nigerian industries are located close to the seaports. The Lagos region alone accounts for 40% of the industries (Ogunsanya, 2008). In light of the growing importance of the seaports to the Nigerian economy, this study examines the seaport development in Nigerian pre and post concession eras focusing on the Apapa port. The study highlights some operational characteristics, port competition and factors affecting the performance of the port.

Recently, the Nigerian government chose port concession as her port reform model. In this model, the government retains the ownership of her port infrastructure, and contracts out the management and operation of the facilities to the private sector on competitive basis for a specific period. The term "concession" basically refers to a grant for an undertaking. A concession is a Public Private Partnership (PPP) agreement between government and a competent private sector for the tenacity of funding, designing, building and maintaining infrastructure that would have been otherwise channelled to traditional Public Procurement channels (Omoke et. al., 2015).

Several studies (Oni, 2008; Ugboma, 2006, Gbadamosi, 2008, Jaja, 2011 & Emeghara, 2012) have revealed that the seaports were developed in response to increased port traffic, political factors and international maritime trade. While activities in the Nigerian ports were commercialized in 1992 under the name, "Nigerian Ports Plc", it was reverted to its former name, "Nigerian Ports Authority (NPA)" in October 1996 (Okeudo, 2013). This reversion is however, not in conflict with commercialization efforts and commitment to improve services. Okorigba (2008) observed that Nigerian ports' efficiency improved after

the reforms of 2006, as cargo dwell time and turnaround time of vessels reduced to an average of 2.45 days when compared to an average of 6.85 days and 10.43 days before the reforms. The study equally found out that the modernization of infrastructure and enhancement of equipment reduced the delay of cargo discharge at the ports. Ehbenine (2009) opined that port concessioning is very beneficial to a national economy because of its significance as a global tool for port development and lends unquantifiable gains to the economy, eliminates poor quality services and delays at the ports. He further opined that private operators would be more reasonable in their dealings to avoid government revocation of their licenses and adverse public reaction; frees up government funds for other priority developmental projects; attracts and uses foreign investment and technology.

Emeghara (1992) noted that from 1975-76, ship congestion at Nigerian seaports was not due to lack of the berthing facilities, but owing to the fact that cargo stacking areas were not relieved of traffic as quickly as they should be. He therefore further argued that lack of adequate, efficient and cost effective transport linkages with the hinterland of the seaports posed operational problems, which militate against capacity utilization. He concluded that Nigerian ports are under-utilized considering the berthing and cargo-handling capacities available, hence the poor operational performance of the ports. Adebayo (2005) equally identified cumbersome clearing system as one of the causes of poor port operational performance in Nigeria. The reason, according to the study is that cargo clearing system depends on the physical movement of manual, paper-based documents to and from various processing centres located within and outside the ports.

Statement of Research Problem

Seaports boost socio-economic development of countries worldwide. The close link between seaports and the economic growth of developing nations is well established in the literature (Hoyle & Hilling, 1970). But unlike the seaports in Asia and Western Europe, Nigeria's ports are not very attractive to shippers as a result of strategic problems such as port congestion, poor transport systems, insecurity and excessive charges. It has been reported also that Nigeria's ports are among the slowest operationally and the most expensive in the world (Leigland & Palsson, 2007). The desire to address this abysmal lack of development at the seaports, which made them to operate at a very minimum efficiency despite thousands of technical and administrative staff employed by the authorities has resulted in port reforms agenda adopted in 2000. This reform has subsequently led to the concessioning of the major port terminals in the country to private

operators. In total, the concession programme has yielded over $900 million in physical capital commitments by private terminal operators. Despite the huge investment in the development, there remain serious inadequacies in Nigeria's maritime freight transport.

As reflected at all Nigerian ports, government regards ports as national strategic assets mainly for political pragmatism. Even after port concession, the Apapa port, which is strategically located at Apapa LGA, operates mostly under poor equipment and outdated infrastructure. Going by the supposed vision statement of the Apapa port, its decision is to, among other things, become the leading Port in Africa; and to deliver efficient port service in a safe, secure and customer-friendly environment. Its core values include efficiency, customer satisfaction, safety and security, as well as innovation. The fundamental objectives of the Apapa port reform were to increase efficiency in port operations, decrease cost of port services to stakeholders, decrease cost to the government for the support of port sector, and attract private sector participation so as to free public resources for public services. In other words, the essence of port restructuring process is to achieve the expected efficiency and make the ports productive, user and investor friendly within the confines of its operational environment.

In the past, Nigerian ports have witnessed some operational developments that negate the tenets of world maritime operational standards and modalities. To this end, the ports require fundamental reforms to shape and transform the entire system and provide services comparable to those of the advanced economies of the world (Emeghara, et. al., 2012). The success of the new development, and the continued growth of regional trade, has encouraged the Nigerian government to seek further opportunities for port terminal development. Thus, the aim of this study is to critically analyse the seaport development in pre and post concession eras, focusing on the Apapa seaport, Nigeria's premier port. The objectives of this study are to:

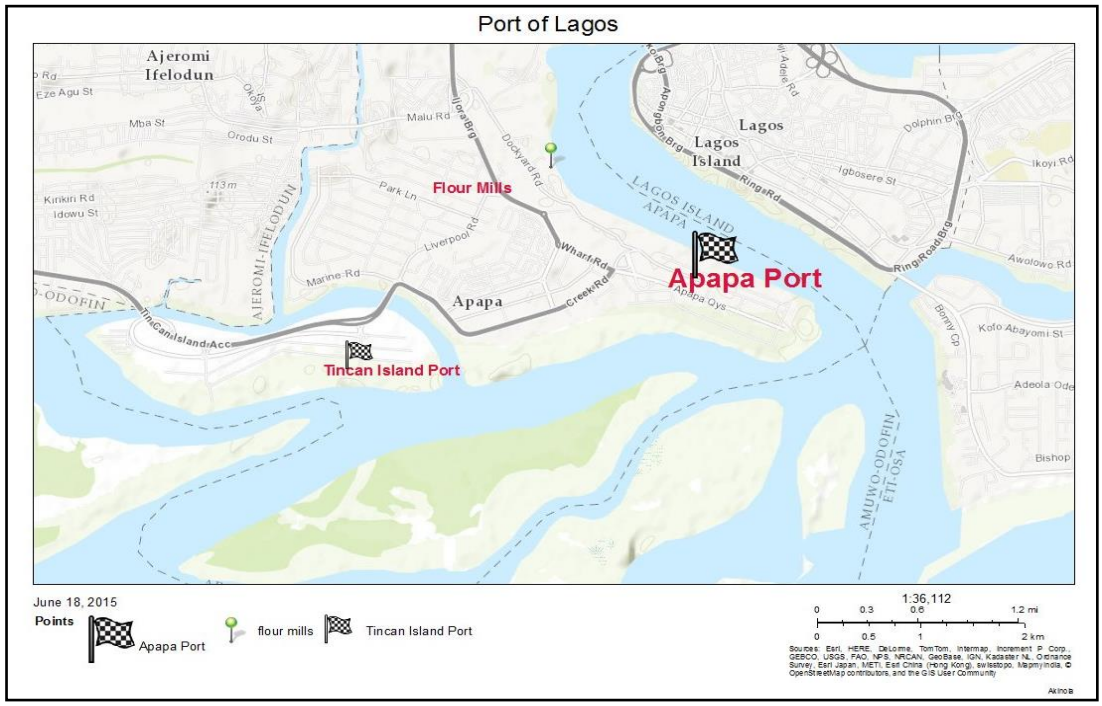
i. examine the trends of inward and outward cargo traffic in pre- and post-concession eras at the Apapa port;
ii. evaluate the quality of service and port utilisation in the pre- and post-concession eras of the Apapa seaport; and
iii. measure the level of productivity of the Apapa port during the pre- and post-concession eras.

Study Area

The Apapa seaport is located in Apapa Local Government Area (LGA) of Lagos state (Figure 1). The port was concessioned in 2006. The concessionaires are A.P. Moller Terminal (APM), Apapa Bulk Terminal Ltd. (ABTL) and ENL Terminal (Tables 1). Apapa port is Nigeria's largest and most important port. It comprises Lagos quays which predominantly handle wheat and bulk cement, utilizing pneumatic elevators and grab bucket equipment. Silo storage capacity is up to 76,000 tonnes. The quay also handles passenger traffic for West Africa's ferry services. Also, the Apapa port provides over 1,000 metres of containers berths which handles three Roro vessels at once, four jetties for service craft and tugs and covered storage space of 6,400 square metres. It is also served by road and water transport. The bulk vegetable Oil Wharf is mainly used for the discharge of vegetable oil. It can be used by vessels up to 152 metres long and 7.9 metres draught. There are the Atlas cove oil terminal, fish wharf and Apapa petroleum wharves where dock workers are employed.

Figure 1: Location of Apapa Seaport in Apapa LGA

The Apapa port has continued to play a dominant role in the nation's economy making it the most important multifunctional seaport not only in Nigeria, but in the whole of the West African sub-region. By virtue of its geographic location and



history, the port enjoys a lot of patronage from its immediate environment, its extensive hinterland spreading across western and northern Nigeria and even Republics of Niger and Chad. This port handles over 60% of the country's international cargo traffic. The complex has a wide scope of operations and accommodates a large variety of vessels such as container ships, bulk carriers, cargo freighters and small passenger liners. The port is an important freight attracting and generating centre because of its commercial and industrial land-use characteristics. Furthermore, it provides a comprehensive range of services, which include: cargo handling, warehousing, distribution, bunkering and ship supplies.

Table 1: State of Apapa Seaport Terminals and their Successful Bidders

S/N	Terminal Operator	Berth Depth	Lease Term (Year)	Handover Date
1	Apapa Bulk Terminal Limited (Berth 1-5)	Berth 1 (12.5m) Berth 2&3 (13.5m) Berth 4 (11.0m) Berth 5 (12.0m)	25	3rd April, 2006
2	ENL Consortium Limited (Berth 6-14)	Berth 6 (10.5m) Berth 7,8,&9 (11m) Berth 10&12 (10m) Berth 11,13&14 (9.5m)	10	3rd April, 2006
3	APM Terminal (Berth 15-18)	Berth 15&16 (13m) Berth 17&18 (13.5m)	25	3rd April, 2006
4	GDNL Terminal (Berth 19-20)	Berth 19&20 (11.5m)	25	3rd April, 2006

Source: NPA, 2015

Materials and Method

In general terms, attention is given in this study to the newer and relatively broader materials on seaport development and operational performance measurement. Specifically, however, Nigerian seaports and the Apapa port in particular are the objects of focus. This necessitates a search for recent relevant books and academic journals for information on the literature. Practically, the literature selection was done through library search facilities and the internet search engine. Two main data sources were used: the primary and the secondary sources. The primary data were collated through in-depth interviews and field observations. The bulk of the data was derived through the secondary source, mainly from agencies (NPA, NIMASA and NSC) and the internet engine for recent journals.

The analysis of the data was carried out with the aid of statistical software packages such as SPSS and Microsoft Excel. This involved using simple percentages, mean, and the standard deviation, presented in forms of tables, charts and graphs.

In trend analysis, two methods were used: least square (Eqn. 1) and the moving averages (Eqns. 2&3). The later was specifically employed in the analysis. This study equally involved using the port performance indicators which include output and service in determining the trend of the development. The method of moving average is one of the smoothing techniques used in time series analysis to establish a trend. It is based on the mathematical concept of arithmetic mean. Although there are different techniques available, the study applies the following equations:

Least Square: $Y = Mx+b$ …… 1

Moving Average: $\Delta T = (T_{t2}/T_{t1}-1)$ ……..... 2

% Moving Average: $\Delta T = (T_{t2}/T_{t1}-1) \times 100\%$ ……..... 3

Where,

Y = Cargo Traffic

x = Year Vessel Traffic

M = Gradient

b = Intercept

ΔT = Change in Cargo Traffic

T_{t2} = Base Year Cargo Traffic

T_{t1} = End Year Cargo Traffic

Results of Findings

Annual Cargo Throughput at Apapa Seaport

An assessment of the annual Cargo Throughput (Tonnes) at the Apapa port is shown in Table 2. The analysis illustrates the service indicator as recorded for pre-concession (between 2000 and 2005) and post-concession (between 2006 and 2014) eras.

Table 2: Annual Cargo Throughput (Tonnes) at Apapa Seaport

Year	Inward	Outward	Throughput	Growth	% Growth
2000	10,532,291	475,987	11,008,278	0	0.00
2001	13,396,944	500,583	13,897,527	2,889,249	26.25
2002	13,760,574	545,645	14,306,219	408,692	2.94
2003	14,038,565	539,753	14,578,318	272,099	1.90
2004	14,691,890	460,506	15,152,396	574,078	3.94
2005	13,206,813	225,293	13,432,106	-1,720,290	-11.35
2006	14,990,873	232,467	15,223,340	1,791,234	13.34
2007	27,913,005	379,391	28,292,396	13,069,056	85.85

2008	17,227,294	1,990,802	19,218,096	-9,074,300	-32.07
2009	18,744,899	169,977	18,914,876	-303,220	-1.58
2010	17,968,120	191,587	18,159,707	-755,169	-3.99
2011	19,132,303	754,183	19,886,486	1,726,779	9.51
2012	19,119,009	832,799	19,951,808	65,322	0.33
2013	19,594,717	842,652	20,437,369	485,561	2.43
2014	19,825,488	819,778	20,645,266	207,897	1.02
Av. Annual	16,942,852	597,427	17,540,279	642,466	6.57

Source: NPA, 2015

Figure 2 shows a comparison of the annual cargo throughput for the first six years of post-concession with pre-concession eras. As depicted in Figure 2, the highest ever of cargo throughput in the history of the Apapa seaport was recorded in the second year of the post concession era with approximately 27,913,005 tonnes. Average Annual Cargo Traffic (AACT) for the years under review was boosted by high annual records in the post-concession era. Thus, the average annual growth was 6.57% over the years (Table 2 and Figure 2).

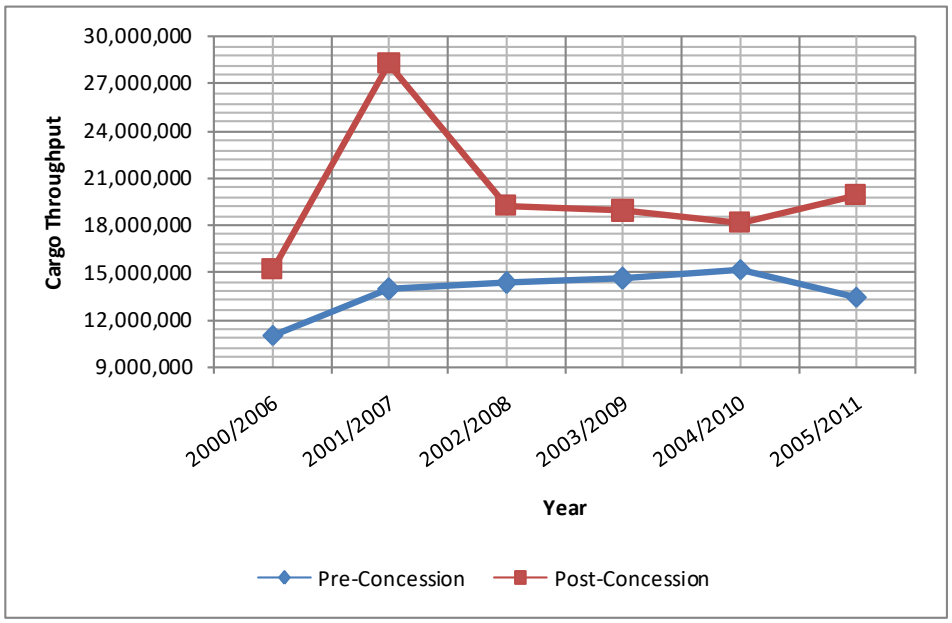


Figure 2: Cargo Throughput in Pre-Concession and Post-Concession Eras
Source: NPA, 2015

General Cargo Traffic at Apapa Seaport

The distribution of the annual general cargo traffic at the Apapa seaport for pre-concession (2000-2005) and post-concession (2006-20014) eras is shown in Table 3 and Figure 3. The highest volume was recorded in 2007 with approximately 14.8 million tonnes of cargo returning 844.69% growth rate over the previous year (2006). Average annual general cargo traffic was estimated to be approximately 267,923 tonnes, giving 6.173% annual growth rate over the period.

As depicted in Table 3, inward cargo traffic was approximately 4,350,753 tonnes while outward cargo traffic equalled 351,550 tonnes. Comparatively, the post-concession era witnessed a high general cargo traffic. In 2014, general cargo traffic was estimated to be 7.0 million tons. Inward and outward general cargo traffic for the eras (2000-2014) equal 6,980,377 and 819,778 tonnes respectively.

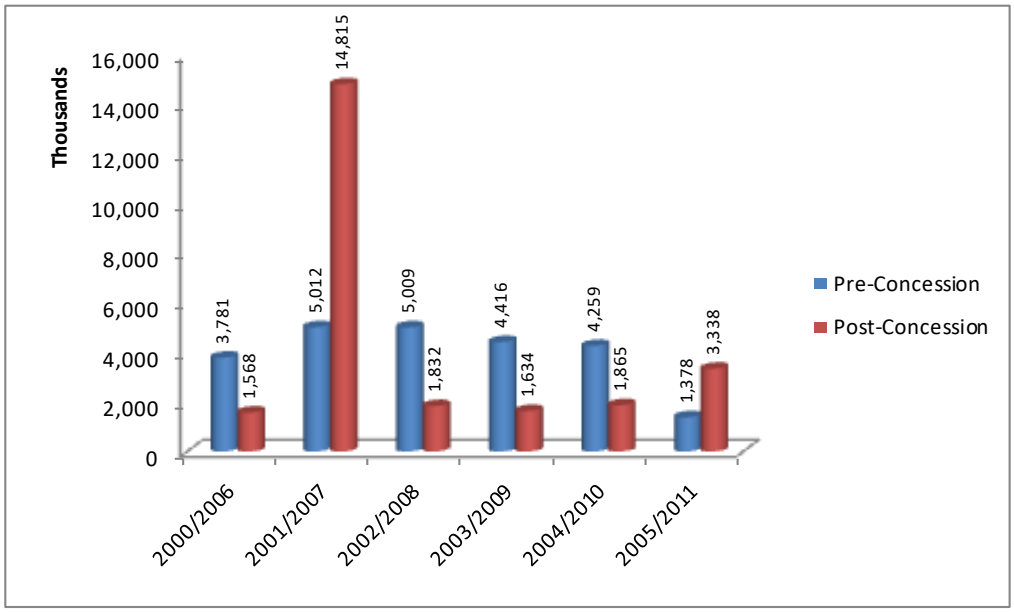


Figure 3: Pre-Concession and Post-Concession General Cargo Traffic
Source: NPA, 2015

Table 3: General Cargo Traffic (Tonnes) at Apapa Seaport

Year	Inward	Outward	Throughput	Growth	% Growth
2000	3,417,623	363,687	3,781,310	0	0.00
2001	4,639,922	371,883	5,011,805	1,230,495	32.54
2002	4,629,962	379,222	5,009,184	-2,621	-0.05
2003	4,050,674	365,171	4,415,845	-593,339	-11.85

2004	3,975,127	283,667	4,258,794	-157,051	-3.56
2005	1,347,905	29,969	1,377,874	-2,880,920	-67.65
2006	1,534,123	34,109	1,568,232	190,358	13.82
2007	14,624,324	190,641	14,814,965	13,246,733	844.69
2008	1,820,115	11,624	1,831,739	-12,983,226	-87.64
2009	1,627,251	6,868	1,634,119	-197,620	-10.79
2010	1,863,366	1,706	1,865,072	230,953	14.13
2011	2,584,278	754,183	3,338,461	1,473,389	79.00
2012	6,280,127	818,085	7,098,212	3,759,751	112.62
2013	5,886,127	842,652	6,728,779	-369,433	-5.20
2014	6,980,377	819,778	7,800,155	1,071,376	15.92
Av. Annual	**4,350,753**	**351,550**	**4,702,303**	**267,923**	**61.73**

Source: NPA, 2015

Annual Bulk Cargo Traffic at Apapa Seaport

Analyses of annual bulk cargo traffic (dry and wet) at Apapa seaport are shown in Table 4, Figure 4 and Figure 5. As shown in Figure 4, the highest traffic of dry bulk cargo traffic at the Apapa seaport was recorded in the fourth year of the post concession era, and this is estimated to be approximately 8.4 million. Average Annual Cargo Traffic (AACT) measured 6.3 million tons. An average annual growth rate was 5.47% over the period. During the eras, the average annual liquid bulk cargo traffic (Table 4) for inward traffic was estimated to be approximately 6.5 million tons while the outward cargo traffic was 7,846 tons. The higher records of liquid bulk traffic were witnessed in the post-concession era (Figure 5). The annual records were more than double of what was obtainable in the pre-concession era. In 2014, inward liquid bulk traffic was estimated to be 7.35 million with a zero outward cargo traffic.

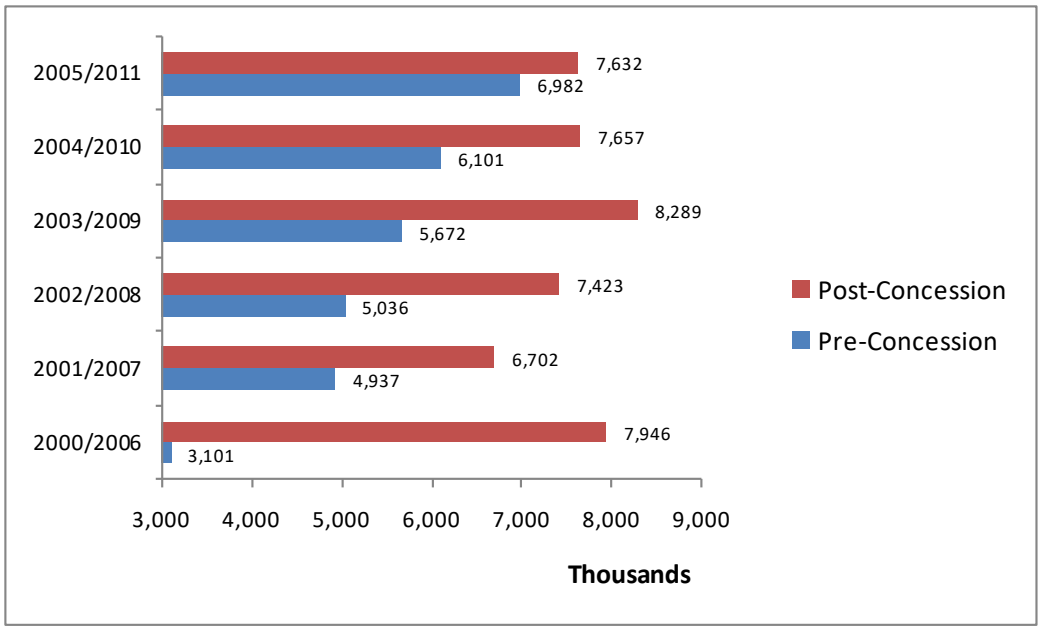


Figure 4: Annual Dry Bulk Cargo Traffic at Apapa Seaport

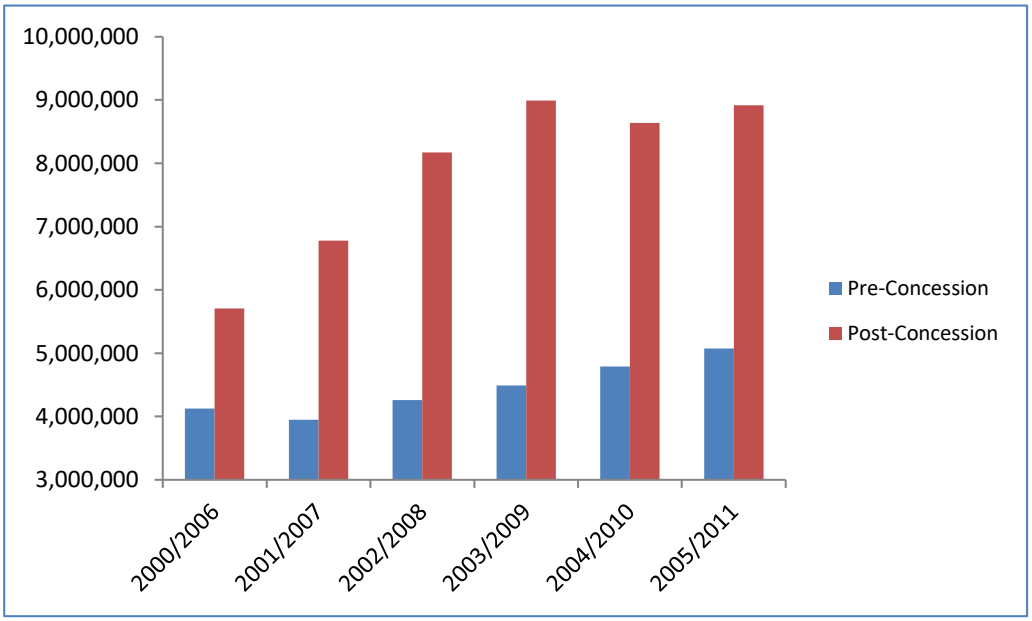


Figure 5: Liquid Bulk Traffic at Apapa Seaport

Table 4: Annual Bulk Cargo Traffic (Tonnes) at Apapa Seaport

Year	**Dry Bulk Cargo**			**Wet Bulk Cargo**		
	Inward	Outward	% Growth	Inward	Outward	% Growth
2000	2,993,503	107,750	0.00	4,121,165	4,550	0.00
2001	4,808,797	128,700	59.21	3,948,225	---	-4.30
2002	4,869,687	166,423	2.00	4,260,925	---	7.92
2003	5,497,724	174,582	12.63	4,490,167	---	5.38
2004	5,924,253	176,839	7.56	4,792,510	---	6.73
2005	6,807,487	174,281	14.43	5,051,421	21,043	5.84
2006	7,747,964	198,358	13.82	5,708,786	---	12.54
2007	6,513,076	188,750	-15.66	6,775,605	---	18.69
2008	7,245,675	177,452	10.76	8,161,504	10,726	20.61
2009	8,127,380	161,709	11.67	8,990,268	1,400	10.03
2010	7,466,658	189,881	-7.63	8,638,096	---	-3.93
2011	7,632,041	---	-0.32	8,915,984	---	3.22
2012	5,240,281	13,202	-31.17	7,598,601	1,512	-14.76
2013	5,710,259	---	8.69	7,998,182	---	5.24
2014	5,486,894	---	-3.91	7,358,217	---	-8.00
Av. Annual	**6,138,112**	**154,827**	**5.47**	**6,453,977**	**7,846**	**4.35**

Source: NPA, 2015

Annual Container Traffic at Apapa Seaport

An assessment of the annual container traffic in Twenty-Foot Equivalent Unit (TEU) at the Apapa port is shown in Figure 6. As depicted in the Figure, the output indicator mainly container traffic, covers the periods of pre-concession (between 2000 and 2005) and post-concession (between 2006 and 2014) eras.

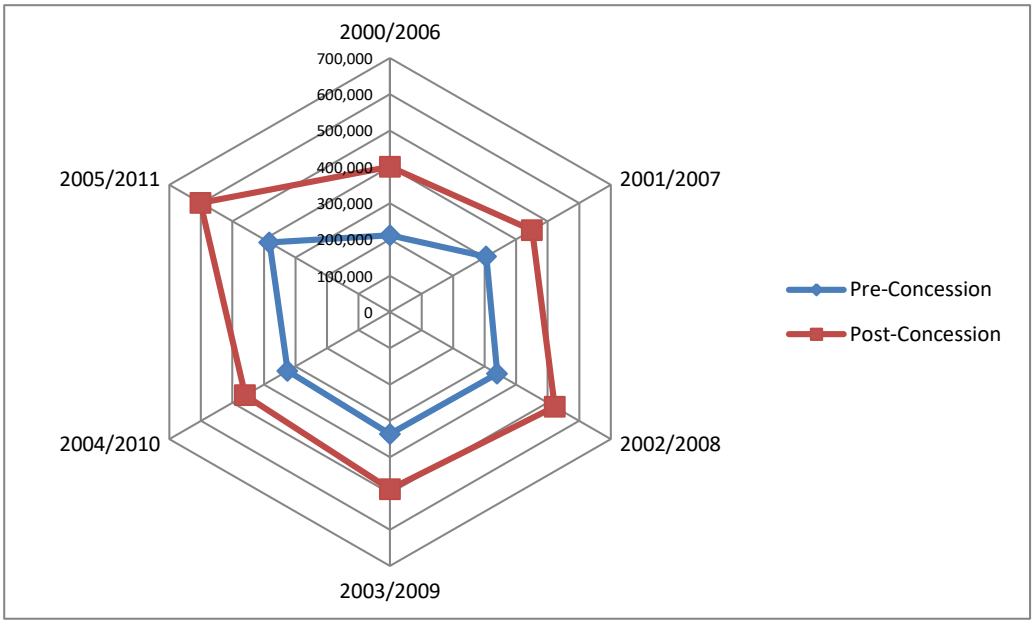


Figure 6: Annual Container (TEU) Traffic at Apapa Seaport

In the period, the highest volume of container cargo throughput was recorded in the sixth year of the post concession era, which was estimated to be approximately 600,986 (TEU). The container traffic was more than 60% of the national container traffic at the port. Consequently, the average annual growth rate was 9.01% over the period.

Evaluation of the Quality of Service and Port Utilisation

Port service and utilization indicators cover awaiting berth time, berth time, vessel turnaround time and berth occupancy (Table 5). With regard to port utilization indicators, high berth occupancy causes the quality of service to decline and low berth occupancy of 50% or less indicates that resources are underutilised. But berth occupancy values within the range of 60% and 70% are the safest for the port.

Table 5: Turnaround Time of Vessels at LPC: 2001 to 2012

Year	No. of Vessels	Growth	% Growth	Turnaround Time (Days)	Berth Occupancy
2001	1,478	0	0.000	15.0	77.7
2002	1,342	-136	-9.202	22.5	81.7
2003	1,345	3	0.224	18.1	62.1

2004	1,376	31	2.305	12.2	66.0
2005	1,351	-25	-1.817	10.0	57.0
2006	1,376	25	1.850	10.3	63.4
2007	1,359	-17	-1.235	8.7	67.2
2008	1,452	93	6.843	9.6	64.2
2009	1,545	93	6.405	9.5	62.4
2010	1,587	42	2.718	7.1	60.5
2011	1,594	7	0.441	8.2	62.5
2012	1,444	-150	-9.410	7.9	

Source: NPA, 2015

Table 6: Apapa Port Service and Utilisation Indicators

	Pre-Concession	**Post-Concession**	**% Change**
Ships Completed	815	1,135	28.2%
Days Awaiting Berth	3.75	3.46	-8.5%
Days at Berth	8.08	5.76	-40.2%
Total Days at Berth	11.83	9.22	-28.3%
Average Turnaround Time	14.68	8.24	-48.2%

Source: NPA, 2015

As estimated from Table 5, the average time for awaiting berth for pre concession period (2000-2005) was 1.26 while the average waiting time for post concession period (2006 – 2012) was 1.2. This implies that there is no significant improvement in the average waiting time during the post concession period. The average turnaround time for pre-concession period is 15.56 days while it is 8.76 days in the post concession period. This shows a significant improvement in the time spent at berth in the post concession period. However, this is still far higher than the international standard (24hrs). The achievement was made possible by the improved quality of service provided by the terminal operators. However, a lot still needed to be done to attain the international standard. The average berth occupancy over the years is 65.9. As estimated, the average berth occupancy is 68.9% for the pre concession period and 63.4% for post concession era. The percentage difference is 5.5% (Table 6). This implies that the capacity of the port is not optimally utilized. This equally reveals that the post concession era has witnessed slight improvement in the turnaround time and berth occupancy.

Discussion of Findings

The Apapa port has continued to play a dominant role in Nigeria's economy as the most important multifunctional port. Being an important freight attracting and generating centre aided by Lagos commercial and industrial land-use characteristics, the port handles over 60% of the Nigerian cargo traffic.

The study assesses the operational performance indicators for both pre-concession (between 2000 and 2005) and post-concession (between 2006 and 2014) eras. As depicted in the findings, the highest ever of cargo throughput in the history of the Apapa seaport was recorded in the second year of the post concession era, estimated to be approximately 27,913,005 tonnes. The indicators of service and utilization are explained with the aid of Awaiting Berth Time, Berth time, Vessel Turnaround Time and Berth Occupancy. This study shows that there is a significant improvement in the average waiting time during the post concession period when compared with the pre-concession period. The average turnaround time for pre-concession period was 15.56 days while it was 8.76 days in the post concession period. This shows that there is a significant improvement in the time spent at berth in the post concession period when compared with the pre-concession period, where about seven (7) days are saved at the berth. However, this is still relatively high compared to the international standard of 48hrs.

The study equally shows that, the average berth occupancy over the years was 65.9. For the period, the Average Berth Occupancy was 68.9% for the pre concession period while it was reduced to 63.4% in the post concession period, indicating a percentage difference of 5.5%. However, the pre-concession and post-concession berth occupancies did not fall within the safe range. This implies that the capacity of the port is not optimally utilized. From the analysis it is further revealed that the post concession period has witnessed a slight improvement in the turnaround time and berth occupancy.

Measuring the level of productivity of the Apapa port during the pre- and post-concession eras has revealed that the positive impact of the concession has been almost instantaneous. The impact seems to be almost instantaneous with the introduction of specialized private operators, particularly in cargo traffic (bulk, general cargo, containerized, liquid) and the modernization of infrastructure. The concession has equally strengthened port operations and efficiency, competitive advantage and job creation as well as jettisoned monopoly.

Division of activities vis-à-vis responsibilities of the port authorities and terminal operators has definitively yielded positive results. The positive figures from the measured indicators have invariably led to a better-quality and proficient port operation structure. Apapa port's productivity has been critically enriched with

the associated financial dividend to the Concessionaires and Government in general.

Conclusion and Recommendations

Conclusion

This study has shown that there was a higher cargo throughput in the post-concession era. Government's effort on port reform and the ingenuity of the operators are commendable, but there is still a wide gap between the present attainment and the expected performance. Since the concession of the Apapa terminals, statistics have shown that cargo throughput has really soared. The improvement in cargo throughput has brought turnaround time of vessels down to 8.5 days on the average in the current era. The increased cargo throughput is an indication of improvement in the output of the port. The implication is that as traffic increases the need for port improvement and port expansion grows.

Recommendations

The Apapa port has witnessed remarkable improvements in the post-concession era and this tempo must be sustained. How can Nigeria sustain this tempo in the foreseeable future? The following recommendations are made.

- The terminal operators should be mandated to give Nigerians ample opportunities in their employment policy. Apart from this, there must be adequate manpower training such that after the expiration of the terminal operators' contracts, Nigerians would have gained adequate technological and managerial knowledge and expertise that will make them become effective terminal operators;
- The Apapa port should be made the hub port for the entire African sub region. Apart from acquiring adequate infrastructural foundations upon which the future port growth and development can be sustained, there is equally a call for adequate infrastructural maintenance for greater port productivity;
- All the transport modes must be properly developed and fully integrated so as to facilitate intermodal through-transport and easier distribution of cargo;
- Following the upsurge in cargo throughput, the stakeholders should be proactive, knowing that port congestion problems are imminent and the present data should be used to plan for the future development;
- The latest cargo handling equipment such as Rubber-Tyre Gantry crane (RTG), Rail Mounted Gantry crane (RMG), Automated Guided Vehicle (AVG), and the like should be installed to speed up the loading and

discharging of cargo as well as for the Apapa port congestion reduction.

- To ease port congestion, dry ports should be activated to aid partial relocation of activities from the port to the hinterland.

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