

Delays in Customs Clearing Processes in Sub-Saharan African Port: An Analysis and Evaluation of the ‘Pre-Arrival Assessment Report’ (PAAR) Process at a Nigerian Seaport

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This paper focuses on the performance of the Pre-Arrival Assessment Report (PAAR) process in reducing import clearance time in a Nigerian port between 2015-2017. Data consist of 10,577 import entries made to the Nigerian Customs by a leading import-export local transaction bank. Data were analysed using basic descriptive statistical tools. The result of the evaluation showed a progressive reduction in the time taken by the customs to process and issue PAAR. PAAR process time is the minimum import clearance lead time since without it clearance of imports would not be effected .

Key words: imports, clearance, lead time, customs, importers, PAAR

INTRODUCTION

Developing countries have gone beyond being target markets for products and are fast becoming sources of low cost materials and also, producers for the rest of the world. Increasing attention and focus on these countries, therefore, calls for the need to understand the impediments to their being included in the global supply chains. Since the colonial era, seaports are known to play a key role in the inclusion of developing countries in the global supply chains, since they serve as the trade gateway of their nations to the rest of the world. They are also critical to the buoyancy of the local economies on the continent, as they account for over ninety per cent of the international trade activities that take place within the continent and in the global value chain (Refas & Cantens, 2011). At the border posts, it remains a statutory requirement globally for local customs authorities to superintend cargo clearance processes that permit consignments either into or out from a particular country, thus making customs authorities critical cross-border agencies globally for international trade (Haughton & Desmeules, 2001; Sawhney & Sumukadas, 2005; Gordhan, 2007). A key indicator of the efficiency of these ports in facilitating international trade is the time spent by export or import cargo at clearance from the ports which is generally referred to in the field of international logistics as the cargo dwell time. As international trade experiences a geometric progression, customs port administration processes, including pre-arrival and post-cargo clearance continue to converge globally, becoming pivotal in driving strategic economic parameters for trade at international, regional, and national levels (Arvis et al., 2012). This corroborates the position of the World Bank’s Global Economic Prospects view that ‘more efficient customs are associated with more trade’ (Newfarmer, 2005: 80; WB, 2005), and which has since been recognized as a critical component of the five contracts of international trade (Ojadi & Walters, 2015).

In the supply chain domain, customs operational administration is directly linked to cargo dwell-time. This time span can be decoupled into transactional, operational, and discretionary storage time. While transactional dwell-time is the time spent on customs clearance procedures some of which start long before the vessel arrival and continue thereafter, the operational dwell-time is the time spent on vessel arrival, berthing, unloading, yard storage and exit from port, and discretionary dwell-time is the time spent on storage in the container terminal (Refas & Cantens, 2011). Nigerian seaports, like most ports in sub-Saharan Africa are largely time-inefficient in comparison to ports in developed economies, experiencing long cargo dwell times, and in some instances exceeding three weeks on the average in exiting port facilities (Refas & Cantens, 2011). Economically, the delays increase inventory and storage costs of the shippers which in turn impact on the ease of doing business in these countries.

A key component of the import process is the pre-arrival processing assessment process (PAAR), which involves the electronic submission to the customs authority of the clearance documentation by the local bank on behalf of the shipper, the assessment of which determines the specific inspection (examination) procedure to be adopted for the import cargo based on customs's risk profiling outcome. While the PAAR process is usually initiated before the arrival of the vessel, its prompt release facilitates the efficiency of the import clearance process since without it no scheduling of cargo inspection and clearance could take place. Furthermore, if it is initiated after vessel arrival, the processing time serves as the minimum dwell-time for the cargo clearance process. Thus, this study focuses on the performance of the customs PAAR process.

This study is divided into eight sections comprising the literature review, conceptual framework, research question, objective and scope of the study, other sections include the methodology, findings and the discussions and implications.

LITERATURE REVIEW

Theoretical Foundation

The extant literature on port dwell time, as summarized by Raballand et al. (2012) highlights the key areas of research interest in the domain - port operations, trade competitiveness, port competition, and supply chain performance – which are considered the systematic outputs of the port dwell time construct. In the domain of developing country studies, the concept of port dwell time in relation to the complementary aspects of trade facilitation and logistics is of great significance as it impacts heavily on access to import cargo and costs, which indirectly stimulates exports especially with regards to time-sensitive freight (Evans & Harrigan, 2005; Nordås, Pinali, & Grosso, 2006; Djankov, Freund, & Pham, 2010). The Africa Trade Report for 2017 indicates that the challenge of cargo dwell time with the consequent rise in costs due largely to inefficient customs administrative procedures portends a greater impediment to trade competitiveness than freight tariffs for most African countries, thereby constraining import-export volumes (Pearson, Carter, & Peng, 1998; OECD, 2005; Liu & Yue, 2013). Closing this gap in the broader context of trade facilitation culminated in the development and ratification of the Trade Facilitation Agreement by the World Trade Organization (WTO) to help boost Africa's competitiveness in the global trade value chain, especially with respect to efficient customs operations via the single window mechanism.

Generally, the time component of customs clearance procedures and processes introduces some level of uncertainty in the import-export supply chain with respect to reliability and speed (Sawhney & Sumukadas, 2005). As a result of the rapid globalization of trade and the revolutionary transformations in information communication technology, the process of managing this uncertainty in customs clearance administration has evolved continuously in a three-stage process as illustrated by Appeals and Struye de Swielande (1998) in Figure 1. The stage III of the customs operations optimization makes allowance for pre-arrival clearance of cargo, a process which is largely source-location insensitive and of strong competitive importance for freight forwarders and customs brokers.

**FIGURE 1
STAGES OF CUSTOMS ADMINISTRATION DEVELOPMENT**

| Stage 1 | Stage 11 | Stage 111 |
|--|--|--|
| Checking the goods <ul style="list-style-type: none"> • Checking almost all traded goods physically • Paper and labour intensive | Checking the information <ul style="list-style-type: none"> • Optimize revenue collection • Emphasis on: • Characterization & value assessment of goods • Countering fraud • Some information exchange electronically before arrival of the goods | Checking the process <ul style="list-style-type: none"> • All information exchanged electronically • Minimization of information checks • Emphasis on internal controls • Performance of periodic audits |

Source: Appeals and Struyde De Swielande (1998)

The review of extant literature on customs operations administration in the context of supply chain management (Table 1) elucidates six domain areas espousing the subject. While it does appear that research on the subject focuses more on trade facilitation (TF) challenges of customs administration in the context of global logistics, other interesting research areas in the domain includes the collaborative border management (CBM) approach which deals with the systemic integration of the critical components necessary for an effective trade border management; digital trade-related provisions in regional trade agreements; customs clearance in the context of disaster relief; customs control and risk management; and customs operations in relation to port efficiency. The key findings from the review are as summarized in Table 1.

**TABLE 1
LITERATURE REVIEW SUMMARY TABLE**

| Research interest | Literature | Key findings |
|---|---|--|
| The collaborative border management (CBM) approach | Phillips (2005); Rodon and Ramis-Pujol (2006); Doyle (2010); Rogmann and Zelenska (2017) | *Elucidated the key components of: policy, process, people, technology infrastructure, and facility as critical in the realization of the 'virtual border' concept of CBM. |
| Trade facilitation (TF) challenges in the context of global logistics | Haughton and Desmeules (2001); Moisé, E. (2013); Duval, Wang, Malakoudi, and Bayona (2015); Neufeld (2016); Sowinski (2016); Liang (2017); Taneja, Dayal, and Bimal (2017). | *Studies provides data on the costs and challenges of implementing trade facilitation measures under WTO negotiation, among three main areas of focus — transparency and predictability; procedural simplification and streamlining; and coordination and cooperation between border agencies. |

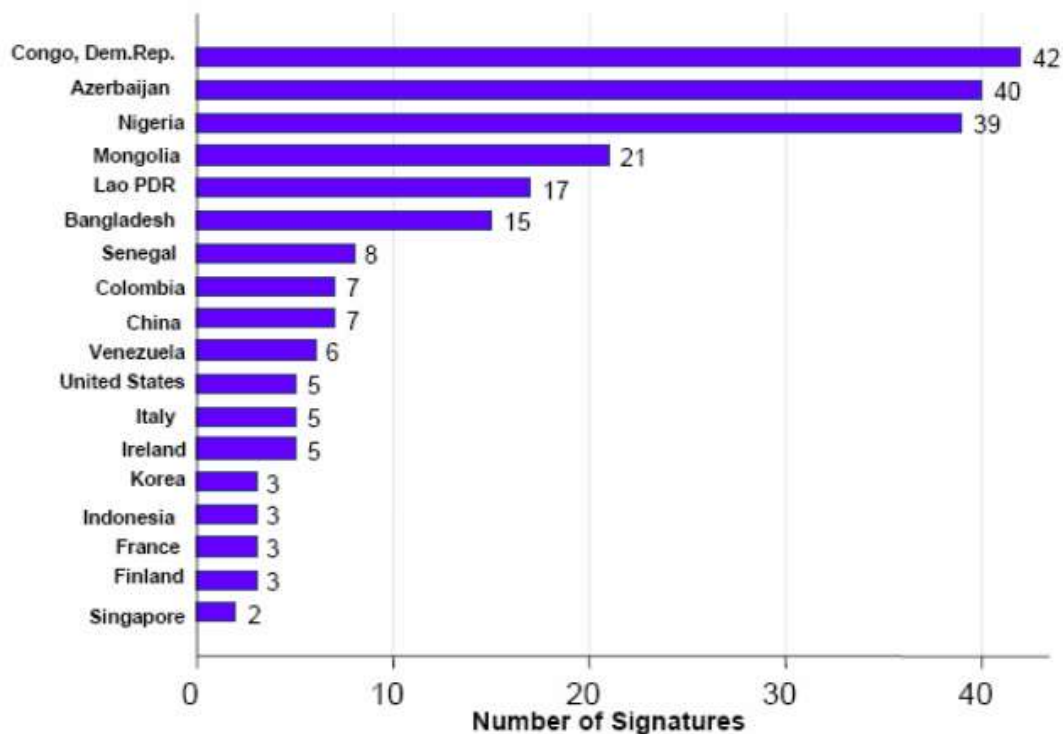
| | | |
|---|---|--|
| | Arvis, Raballand, and Marteau (2010) | *Established that in developing nations, more than half of the time required to transport shipments from port to neighbouring countries is spent in ports. |
| | Hummels and Schaur (2012) | *Validated that elongated transport time theatrically shrinks trade. |
| | Liu and Yue (2013) | *It is possible to change a country's trade structure, which thus stimulates international transactions by accelerating customs clearance procedures. |
| | Suarez-Aleman and Hernandez (2014) | *Established that port inefficiency is mainly a matter of time: the more the movement of cargo in port/terminal takes time, the more inefficient the port/terminal is. |
| | Morini et al. (2017) | *Survey results from 40 countries show that it is possible to implement TF practices without diminishing customs revenues or weakening controls. |
| Digital Trade-Related Provisions in Regional Trade Agreements | Boschian, Fanti, Iacobellis, and Ukovich (2010); Urciuoli, Hintsa, and Ahokas (2013); Wu (2018) | *Elucidated the limitations of existing WTO rules with respect to digital trade on market access, cross-border data flows, consumer and security-related regulatory measure, and trade facilitation. |
| Customs Clearance in Disaster Relief | Gull (2017) | *Identified inadequate legal framework for relief import and defective information exchange as the two most constraining factors for efficient customs clearance during a disaster. |
| Customs Control and Risk Management | Komarov (2016); Widdowson (2016). | *Provides an analytical review of key efficiency indicators of the Risk Management System and Customs control. |
| Customs and Port Efficiency | Raven (2000) | *Efficiency of ports or even the timing of many of its activities is strongly influenced, if not dictated, by customs. |

The literature on customs clearance practice and processes in international trade has increasingly raised awareness on the impact of inefficient procedures in trade facilitation by inducing indirect costs due to the systemic hold-ups (Engman, 2005; Gordhan, 2007; Milner, Morrissey & Zgovu, 2008; Cantens, Ireland & Raballand, 2015; Arvis et al., 2016). This has necessitated increased calls for trade negotiations by member states of the World Trade Organization (WTO) and in the implementation of the revised Kyoto convention adopted by the World Customs Organization (WCO), as member countries strive for balance between revenue mobilization and customs operational efficiency in trade facilitation. This implies that customs clearance practice and procedures are part of the trade policy a nation adopts, which is also subject to reviews depending on the path the nation intends to follow in its socio-economic development.

With respect to Customs administration, the complexity of divergent interests by the port authorities and Customs in favour of higher revenue generation to lower cargo dwell time via the port operations, is

impeding any incentive to correct this anomaly at most sub-Saharan African ports (Raballand et al., 2012; Morini, de Sá Porto, & Inácio Jr, 2017). This is in conformance with the challenges of Customs administration at the ports in sub-Saharan Africa, where cargo clearance processes are fundamental to domestic revenue bases - trade taxes and duties collected on import-export cargo contribute a large percentage of state income. This situation skews customs operational efficiency towards revenue generation. Another concomitant factor in this regards is the high systemic redundancy in customs cargo clearance processes. The UN Conference on Trade and Development (UNCTAD) estimates that ‘the average customs transaction involves 20-30 different parties, 40 documents, 200 data elements and the repeated entry of the same data in the reporting process for most of the countries with high inefficiencies in customs operations (Nova, 1999; Bhattacharya & Hossain, 2006: 4). This is illustrated in Figure 2.

FIGURE 2
NUMBER OF SIGNATURES FOR A TYPICAL EXPORT TRANSACTION



Source: World Bank Global Logistics Indicator Survey (Osaretin, 2007)

In the supply chain domain, extant literature has also, linked customs operational administration to cargo dwell-time. According to several authors, cargo dwell-time is defined as simply the overall time span for the completion of clearance processes between cargo export or import and consequent delivery to the cargo consignee (Refas & Cantens, 2011; Onyemechi & Okoroji, 2015; Kourouniotti, Polydoropoulou & Tsiklidis, 2016; Hill & Böse, 2017). This time span can be decoupled into transactional, operational, and discretionary storage time (Kgare, Raballand & Ittmann, 2011; Refas & Cantens, 2011). A previous study undertaken by Gidado (2015) indicates that the transactional cargo dwell time due to customs clearance processes in Nigeria is relatively high at 4 days for the Lagos Ports when compared to the same parameter for the Port of Durban in South Africa, at just a single day (Table 2).

TABLE 2
CARGO DWELL TIME COMPARISON AMONG MAJOR PORTS IN AFRICA

| Type of dwell time | <u>Durban</u> | <u>Mombasa</u> | <u>Douala</u> | <u>Lagos.</u> | <u>Port Said.</u> |
|--------------------|---------------|----------------|---------------|---------------|-------------------|
| | No. of Days | No. of Days | No. of Days | No. of Days | No. of Days |
| Operational. | 2 | 5 | 5 | 5 | 1 |
| Transactional. | 1 | 3 | 5 | 4 | 1 |
| Storage. | 1 | 3 | 9 | 7 | 3 |
| Total. | 4 | 11 | 19 | 16 | 5 |

Source: Gidado (2015)

The ‘Connecting to compete’ biannual report of World bank also serves as a benchmark for assessing the logistics performance of most countries on several trade related parameters of which customs performance in terms of efficiency of clearance process measured on the speed, simplicity, predictability of formalities and represented on a scale of 1(lowest) to 4 (highest) suggests that Nigeria is weak in customs clearance processes (Table 3). The weakness is against the backdrop of ongoing modernisation of the Nigeria customs processes as far back as 2010. It therefore, calls for a better understanding of the clearance process in order to identify the stage that still creates delays in customs clearance.

TABLE 3
NIGERIA’S CUSTOMS CLEARANCE SCORES

| 2007 | 2010 | 2012 | 2014 | 2016 | 2018 |
|------|------|------|------|------|------|
| 2.23 | 2.17 | 1.97 | 2.35 | 2.46 | 1.97 |

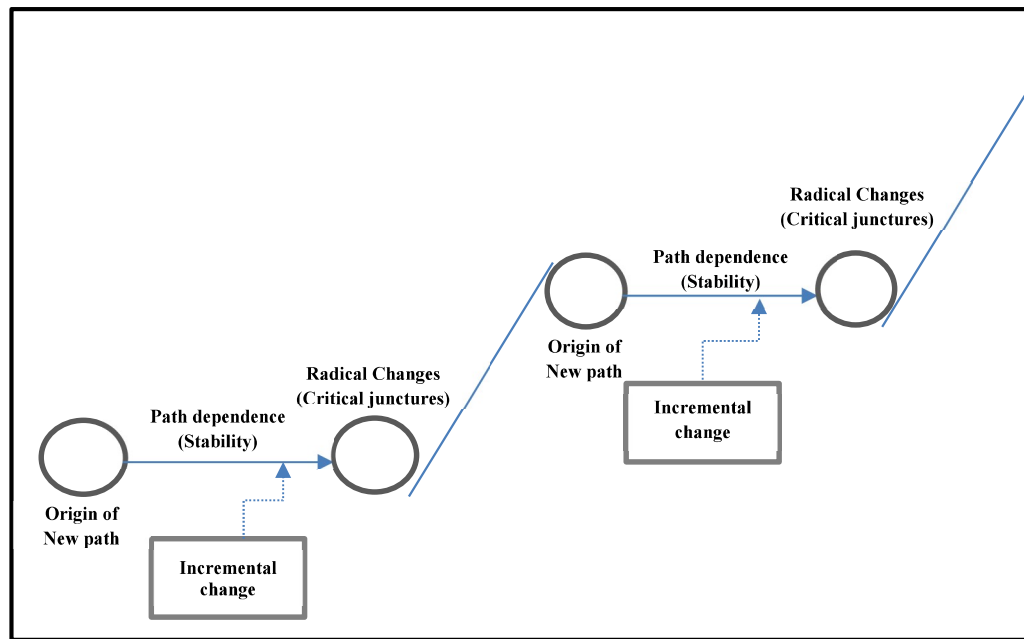
Source: Connecting to Compete Logistics Performance Index (World Bank LPI, 2018)

CONCEPTUAL FRAMEWORK

Historical Institutionalism

In an attempt to gain more insight into the poor performance of customs clearance and the changes adopted over time, this study is anchored on institutional theory which seeks to provide an understanding of the evolution and development of the customs clearance reforms over time given that any form of customs clearance process is dependent on the types of trade policies embarked upon by the national government as highlighted in the literature review (Suddaby et al., 2014). Of the three forms of institutionalism – rational, sociological and historical - the historical type offers a much better platform in that it seeks to evaluate institutions as an embodiment of historical process which is underpinned by the interactions of individuals that change overtime, thus reflecting the importance of timing and sequencing as major concerns (Suddaby et al., 2014). Bannerman and Haggart (2014) also argue that historical institutionalism pays attention to the historical development of institutions. Furthermore, historical institutionalism features three major concepts which are central to enhancing an understanding of the trail and sequence of activities and changes over time. These concepts include the path dependency, critical junctures and gradual change (Fioretos, Falleti & Sheingate, 2016; Bulmer & Burch, 2001). Figure 3 shows the concept of institutionalism.

FIGURE 3
HISTORICAL INSTITUTIONALISM MODE

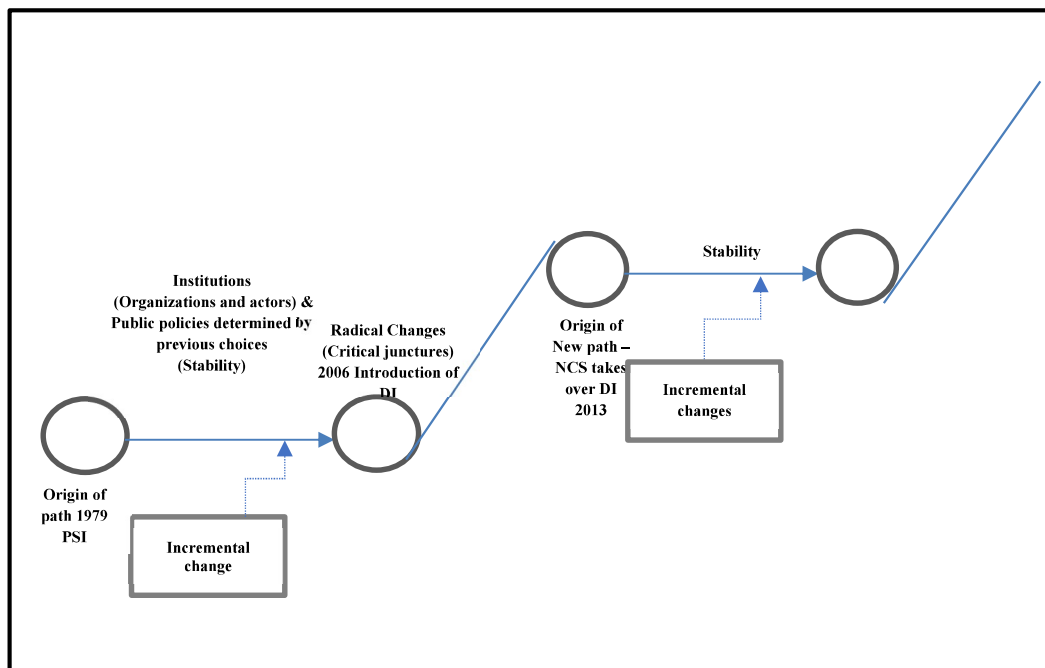


Source: Adapted from historical institutionalism concept (Fioretos, et al., 2016).

Based on the historical institutionalism model, Nigeria’s customs clearance process over time was examined. At its inception in 1891 the Nigerian Customs Service (NCS) was saddled with the main responsibility of revenue collection and accounting, and the control of anti smuggling activities which made her one of the strategic drivers of economic growth, development and frontline trade administrator of the nation (SNSC, 2010). As at 2010, the role of the service had widened to meet the demands of complex and ever growing international trade, terrorism, cross-border economic crime and others. Thus, the roles of NCS have witnessed changes to enhance its relevance in a constantly changing world. In order to ensure that all goods coming into and going out of Nigeria conform with the laws and regulations, NCS ascertains the correctness and authenticity of any goods by examination (i.e. inspection) (FGN, 1990). Over time, NCS had adopted two forms of cargo inspection in the course of its duties. Firstly, inspection of goods was carried out at the country of exportation prior to shipment, otherwise known as pre-shipment inspection. As at 2002, NCS had operated the preshipment inspection (PSI) regime for 23 years through the assistance of appointed agents in countries of origin of the imports (LBS, 2002). The PSA commenced in 1979 by Federal Government Decree No. 36. It had been amended twice in 1988 and 1996 respectively. Due to the inability of the agents to gain entry at the ports of origin to witness the stuffing, an action which invariably led to incidents of under invoicing, concealment and false declarartion, there was the need to subject the cargo on arrival, to in another round of physical examination thus, increasing the overall import lead time. The government declined to renew the contract for the PSI with the inspection agencies and therefore, enthroned the Destination Inspection (DI) scheme, which mandatorily required the NCS to conduct inspection at the Nigerian ports of entry. The DI became operational in 2006 firstly, through a contractual arrangement with third party agents up till 2013 when it was finally handed over to the NCS. Whilst under the control of the agents, the pre-arrival process was known as the risk assessment report (RAR) which was replaced by the NCS with Pre-Arrival Assessment Report (PAAR). In practice, the RAR and PAAR are quite similar in nature since they help to ascertain the risk profile of the shipper, source/country of origin, shipping line and nature of cargo so as to determine the type of inspection suitable to the established level of risk. A significant departure of the RAR and PAAR from the PSI

was the introduction of electronic means of data capture involving the shipper, which tended to reduce the high incident of human contact, assumed to be a prerequisite for corrupt practice with adverse impact on cargo dwell time. The path dependence within the context of this study commenced in 1979 with the PSI which reached the first critical juncture in 2006 where a significant shift occasioned by the introduction of the DI continued till 2013 at which time the NCS took over and introduced the PAAR which has continued as of 2020 (2nd critical juncture). All through the path dependence and critical junctures, changes took place some incrementally, others in quantum leaps. Based on historical institutionalism scholarship (Fioretos et al., 2016), a historical institutionalism model of the development of customs clearance is shown in Figure 4.

FIGURE 4
A HISTORICAL INSTITUTIONALISM CONCEPT FOR CUSTOMS CARGO CLEARANCE PROCESS



Source: Adapted from historical institutionalism concept (Fioretos et al., 2016)

RESEARCH QUESTION

From the literature review and the conceptual framework, quite a lot of effort had been expended to improve the efficiency of customs clearance. Whereas previous studies have carried out an aggregated analysis of cargo dwell time, this paper intends to empirically analyse the performance of the customs pre-arrival assessment within the context of the Nigerian Customs reform system. Thus, the key question is:

Has the PAAR process reduced the import clearance time since introduction?

THE OBJECTIVE OF THE STUDY

The objective of this study is to evaluate the time efficiency of the PAAR process which is the minimum lead time for clearance using data provided by one of the leading import-export transaction banks and the Nigerian Customs between 2015 and July 2017.

Scope of the Study

The scope of this paper includes the customs pre-arrival processing assessment, a key component of the cargo clearance process at the Nigerian seaports, which involves the submission of clearance documentation to the customs through the bank and determines the type of inspection procedure to be adopted for the import cargo. The period under examination is between 2015 and 2016.

CUSTOMS CLEARANCE AT THE NIGERIAN PORTS

The simplified Customs clearance procedure is shown in Figure 5, which begins with the preparation and e-submission to the bank of the single goods declaration (SGD) form incorporating relevant documentation such as Form M, Bill of Lading, Final Invoice, the Combined Certificate of Value and Origin (CCVO), marine insurance, and required permits. The bank uploads the documents to the NCS system which assesses the risk profile of the import, establishes the duty payable and selects the channel of examination/inspection for the import. This results in the e-issuance of the PAAR to the bank who, in turn alerts the shipper or his customs agent to effect duty payment, notify customs with the receipt and apply to the terminal operator and the customs at the port based on the inspection channel stated on the PAAR. Without the issuance of the PAAR, there could be no clearance of import cargo.

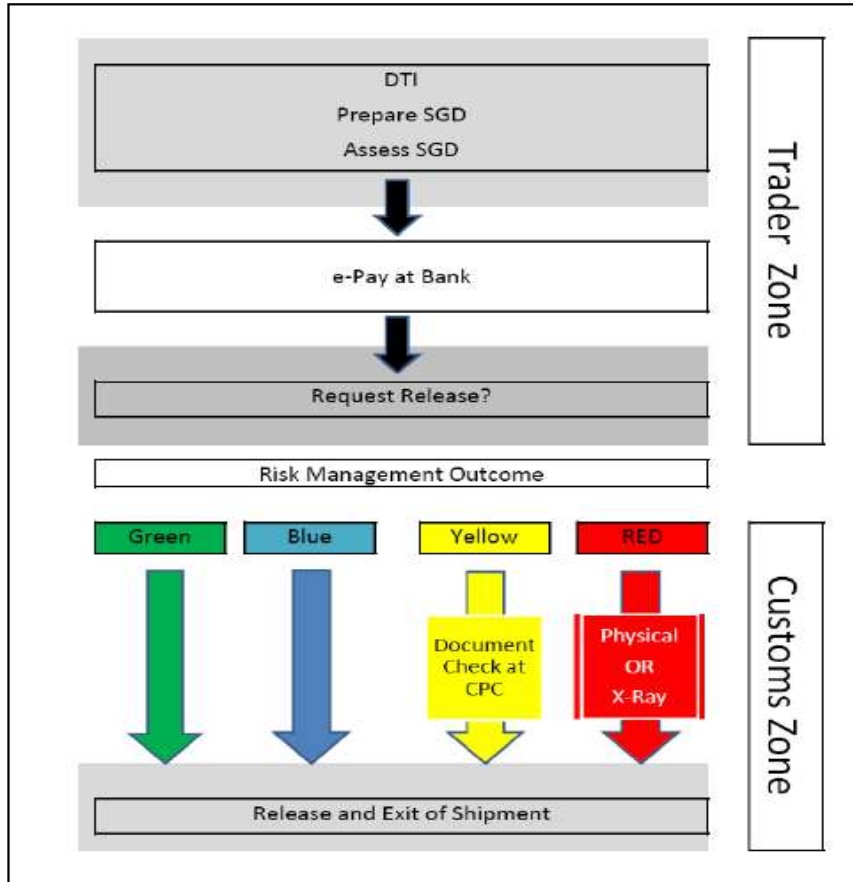
Prior to 2006, all imports were subjected to the PSI scheme. Thereafter, imports were examined on the DI scheme to which about ninety per cent were processed through the 'Red' channel i.e. X-ray or physical examination. As far back as 2015, x-ray scanners were no longer in use due to poor maintenance and all such cargo was directly subjected to physical examination involving different government security and regulatory agencies.

METHODOLOGY

The essence of the study was to evaluate the time between the electronic transfer of import documents to customs by the bank and the issuance of the PAAR.

The sample of the study consists of PAAR documents issued by customs to one of the leading import transaction banks between 2015 and July 2017 involving 10,577 import entries from 59 countries of the world. China led the pack of countries of origin closely followed by Belgium and other European countries. The bank is the second largest import document processing bank for the past 10 consecutive years in Nigeria. The PAAR were analysed using descriptive statistical methods in relation to a range of factors including the average lead time within which they were processed and returned to the bank and countries of origin. It was not easy to link the cargo types with the analysis since information on the latter was restricted. PAAR issued in respect of imports from Egypt has been shown in the appendix as an example.

**FIGURE 5
IMPORT CARGO RISK PROFILES**



| GREEN: | BLUE: | YELLOW: | RED: |
|--|---|--|--|
| Go to Terminal Operator | Go to Terminal Operator | Go to CPC | Go to Examination Area |
| Your SGD is "Customs Cleared" and released from customs control. Proceed to Terminal Operator T/O for issuance of Exit Note. The NCS system will have electronically notified T/O that your shipment is ready for release and T/O staff is now able to issue Exit Note on NCS system after finalizing their own formalities. The T/O will collect your SGD Folder and dispatch it to NCS | Your SGD is "Customs Cleared" and released from customs control. NCS may do a post release audit check on your SGD in the future. Proceed to Terminal Operator T/O for issuance of Exit Note. The NCS system will have electronically notified T/O that your shipment is ready for release and T/O staff is now able to issue Exit Note on NCS system after finalizing their own formalities. The T/O will collect your SGD Folder and dispatch it to NCS Customs Post Clearance audit and may request a follow up of your clearance at your premises | Your SGD requires documentary check at CPC. The Documentary Check Officer at CPC will review your SGD documents and when satisfied will indicate on the system that your shipment is now "Customs Cleared" and released from customs control. The CPC staff will collect your SGD Folder | Your shipment should be examined physically <u>or</u> through X-Ray. The system determines which examination method is required. Proceed to Examination Supervisor who will assign an Examiner to your shipment. The Examiner will review your SGD documents examine your shipment physically or through X-Ray and when satisfied will indicate on the system that your shipment is now "Customs Cleared" and released from customs control. The Examiner will collect your SGD Folder |

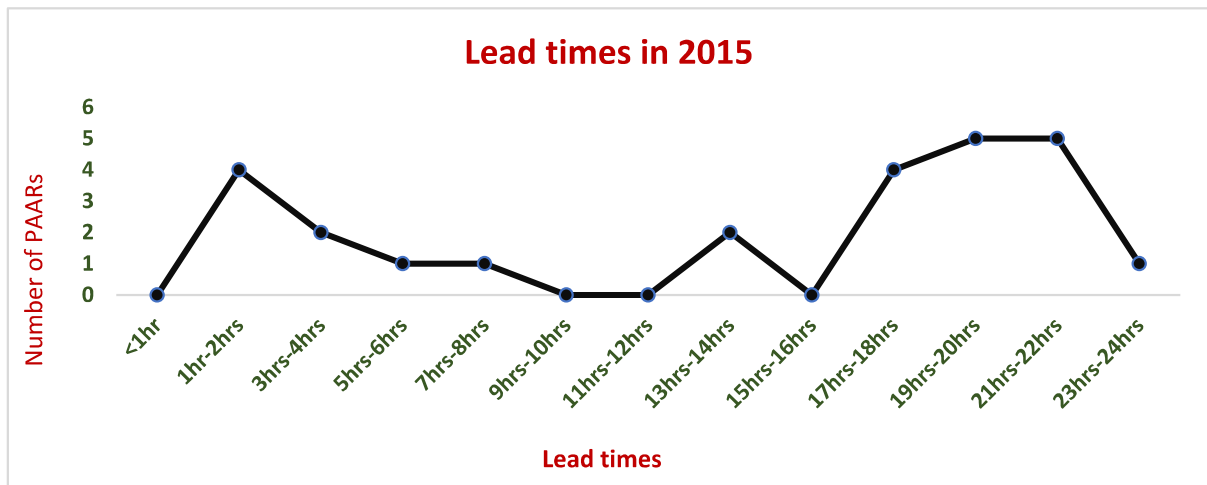
Source: Nigeria Customs Service (2010)

FINDINGS

Figures 6, 7 and 8 show the average lead times between the processing of the documents and the issuance of PAAR for 2015, 2016 and 2017 respectively.

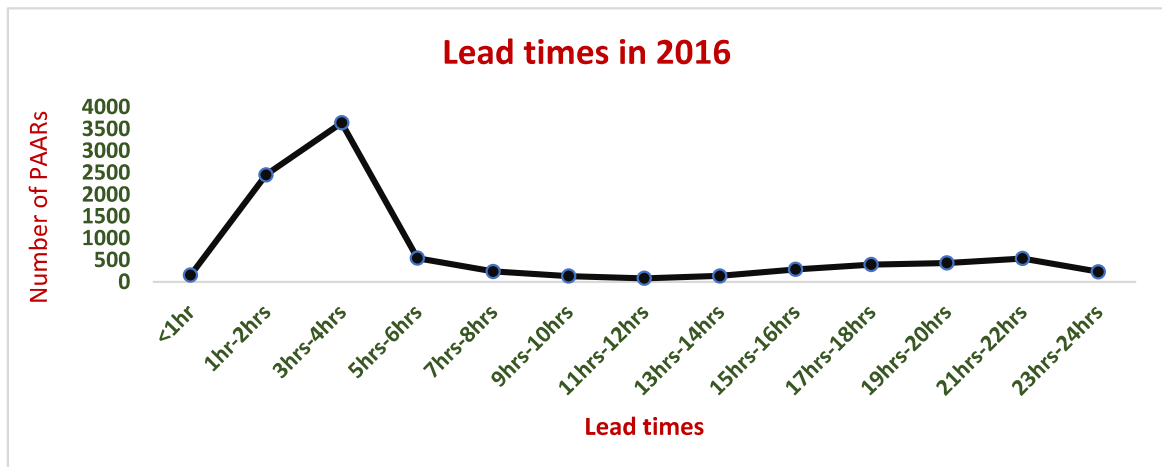
For 2015, not much data was available since NCS had just taken over from the government appointed agent and was working on the replacement of RAR with the PAAR. Only very few PAAR was issued. Majority of the transactions had longer lead times, which ranged from 19-22 hours. This was directly related to delays in the processing of PAAR. However, there were also, few transactions that fell within the range of 1 and 2 hours. It could be argued that 2015 was more of a learning period for NCS.

FIGURE 6
GRAPH OF NUMBER OF PAAR ISSUED BY NCS VERSUS
THE PROCESSING LEADTIME, 2015



In 2016, quite a lot of PAAR was processed and issued. This performance represented an improvement over 2015. The graph for 2016 showed a significant reduction in lead time for the process. It can also be observed that the lead time for most of the transactions were within the range of 3 and 4 hours.

FIGURE 7
GRAPH OF NUMBER OF PAAR ISSUED BY NCS VERSUS
THE PROCESSING LEADTIME, 2016



Data from 2017 point to the fact that lead times had progressively reduced over time. In 2017, most transactions were concluded within an hour. The number of PAARs processed in 2017 was much lower than those in 2016 due to the economic recession in 2017.

FIGURE 8
GRAPH OF NUMBER OF PAAR ISSUED BY NCS VERSUS THE
PROCESSING LEADTIME, 2017



Although the frequency graph was cumulative, a coefficient of variation of the data for the said years was performed and the findings suggest a wide range of variation. For 2015 it was 0.49 while in 2016 and 2017 it was 0.95 and 0.97 respectively. This shows that statistically, there was a wide swing of inconsistency in 2016 and 2017.

DISCUSSION AND IMPLICATION OF FINDING

Port congestion is directly linked to delays on the sea- and land-sides associated with the poor sea port infrastructure, stakeholder processes, activities and behaviour. The multiagent nature of ports suggests the pursuit of different divergent private business and government objectives all at the same time. The issue of poor port infrastructure in sub-Saharan African ports has always taken a centre stage in the discussion of port inefficiency. However, other factors weigh in on port inefficiency as discussed in (Ojadi & Walter, 2015), and strengthened by the logistics performance index report of World Bank (WB, 2018). In-efficient Customs clearance has since been identified as a major contributor to poor trade facilitation (Pearson, Carter, & Peng, 1998; OECD, 2005; Liu & Yue, 2013). While the NCS has progressively transitted to modern e-based clearance process, it does appear that the gains of this effort as shown in the findings, were being hampered by other components of customs clearance process i.e. the procedures for manual and X-ray examination and release. In the event that the x-ray machines were not always functional, the entire planck of inspection becomes manual in nature thus, opening avenues for human contacts and the corrupt practice it creates, which, in turn reinforces the delays in the clearance of imports. From the findings, the PAAR process may seem to have some positive impact on the reduction of import clearance lead time, but there is the need to stabilise the process judging from the inconsistencies shown in Appendix 1. This calls for a collective effort by all port stakeholders to enhance the insertion of Nigeria into the global value chain through the reduction of import clearance lead time.

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APPENDIX 1

PAAR ANALYSIS FOR EGYPT IN 2016

| S/N | Con Date | Con_Time | PAAR Time | PAAR Date | Day's diff | Lead time |
|-----|-----------|-------------|-------------|-----------|------------|-----------|
| 1 | 6-Jan-16 | 5:28:38 PM | 6:01:06 PM | 6-Jan-16 | 0 | 0:32:28 |
| 2 | 8-Feb-16 | 12:26:47 PM | 9:47:40 AM | 11-Feb-16 | 3 | 21:20:53 |
| 3 | 29-Feb-16 | 10:38:08 AM | 11:35:18 AM | 29-Feb-16 | 0 | 0:57:10 |
| 4 | 16-Mar-16 | 12:12:17 PM | 3:29:20 PM | 16-Mar-16 | 0 | 3:17:03 |
| 5 | 28-Apr-16 | 9:15:02 AM | 11:07:11 AM | 29-Apr-16 | 1 | 1:52:09 |
| 6 | 28-Apr-16 | 9:20:50 AM | 11:07:42 AM | 29-Apr-16 | 1 | 1:46:52 |
| 7 | 28-Apr-16 | 9:26:59 AM | 10:52:30 AM | 29-Apr-16 | 1 | 1:25:31 |
| 8 | 28-Apr-16 | 10:03:31 AM | 10:53:15 AM | 29-Apr-16 | 1 | 0:49:44 |
| 9 | 29-Apr-16 | 4:46:00 PM | 2:48:39 PM | 3-May-16 | 4 | 22:02:39 |
| 10 | 23-May-16 | 3:45:40 PM | 4:36:08 PM | 23-May-16 | 0 | 0:50:28 |
| 11 | 27-May-16 | 8:18:45 AM | 10:52:35 AM | 31-May-16 | 4 | 2:33:50 |
| 12 | 16-Jun-16 | 3:59:12 PM | 5:12:11 PM | 16-Jun-16 | 0 | 1:12:59 |
| 13 | 1-Jul-16 | 10:33:34 AM | 8:48:44 PM | 1-Jul-16 | 0 | 10:15:10 |
| 14 | 15-Jul-16 | 12:36:38 PM | 9:44:04 AM | 21-Jul-16 | 6 | 21:07:26 |
| 15 | 18-Jul-16 | 11:42:44 AM | 1:36:17 PM | 18-Jul-16 | 0 | 1:53:33 |
| 16 | 27-Jul-16 | 10:16:33 AM | 10:10:00 AM | 1-Aug-16 | 5 | 23:53:27 |
| 17 | 1-Aug-16 | 8:41:17 AM | 10:23:06 AM | 1-Aug-16 | 0 | 1:41:49 |
| 18 | 3-Aug-16 | 12:47:42 PM | 2:22:36 PM | 4-Aug-16 | 1 | 1:34:54 |
| 19 | 3-Aug-16 | 1:34:23 PM | 6:32:49 PM | 3-Aug-16 | 0 | 4:58:26 |
| 20 | 3-Aug-16 | 3:51:32 PM | 10:17:56 AM | 4-Aug-16 | 1 | 18:26:24 |
| 21 | 8-Aug-16 | 1:54:27 PM | 9:31:23 PM | 8-Aug-16 | 0 | 7:36:56 |
| 22 | 11-Aug-16 | 10:16:06 AM | 7:40:57 AM | 24-Aug-16 | 13 | 21:24:51 |
| 23 | 24-Aug-16 | 2:52:37 PM | 10:55:30 PM | 25-Aug-16 | 1 | 8:02:53 |
| 24 | 30-Aug-16 | 3:10:10 PM | 5:52:05 PM | 30-Aug-16 | 0 | 2:41:55 |
| 25 | 31-Aug-16 | 9:51:04 AM | 12:50:13 PM | 31-Aug-16 | 0 | 2:59:09 |
| 26 | 21-Sep-16 | 3:47:01 PM | 9:59:16 AM | 22-Sep-16 | 1 | 18:12:15 |
| 27 | 31-Oct-16 | 8:45:31 AM | 9:01:10 AM | 2-Nov-16 | 2 | 0:15:39 |
| 28 | 1-Nov-16 | 4:25:32 PM | 9:47:56 AM | 2-Nov-16 | 1 | 17:22:24 |
| 29 | 2-Nov-16 | 1:45:23 PM | 3:20:29 PM | 2-Nov-16 | 0 | 1:35:06 |
| 30 | 8-Nov-16 | 3:34:24 PM | 4:55:59 PM | 8-Nov-16 | 0 | 1:21:35 |
| 31 | 10-Nov-16 | 1:35:31 PM | 6:43:45 AM | 14-Nov-16 | 4 | 17:08:14 |
| 32 | 14-Nov-16 | 12:11:12 PM | 1:05:05 PM | 14-Nov-16 | 0 | 0:53:53 |
| 33 | 1-Dec-16 | 1:05:32 PM | 11:08:42 AM | 2-Dec-16 | 1 | 22:03:10 |
| 34 | 9-Dec-16 | 10:12:05 AM | 11:48:02 AM | 10-Dec-16 | 1 | 1:35:57 |
| 35 | 23-Dec-16 | 9:50:28 AM | 4:55:01 PM | 23-Dec-16 | 0 | 7:04:33 |
| 36 | 28-Dec-16 | 2:57:05 PM | 10:11:07 AM | 29-Dec-16 | 1 | 19:14:02 |
| 37 | 29-Dec-16 | 8:46:04 AM | 8:34:55 PM | 30-Dec-16 | 1 | 11:48:51 |

| Keys | Description |
|-------------------------|---------------------------------|
| Con Date | Date sent to Customs |
| Con Time | Time it was sent to Customs |
| PAAR Date | Date returned by Customs |
| PAAR Time | Time it was returned by Customs |
| Day's Difference | DAYS taken to process PAAR |

Statistics

| | |
|---------------------------------|-------------|
| Mean | 8:12:49 |
| Standard Deviation | 8:24:56 |
| Coefficient of Variation | 1.024593945 |

Summary

**The coefficient of variation is about 102%. This exceeds 100% measure of variation.
It shows a very high degree of instability in PAAR processing lead times in 2016.**