

TRADE FACILITATION AND ILLICIT FINANCIAL FLOWS FROM NIGERIA

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Abstract: *From the Nigerian context, illicit financial flows (IFFs) have been found to be an impediment to the enjoyment of trade flows benefits from trade facilitation. These flows are aided by the neglect of the single window policy cum weak regulatory framework. The World Bank (2017) has been assisting developing countries in building capacity in the area of trade facilitation for curbing IFFs. This study therefore seeks to examine the link between trade facilitation and IFFs from Nigeria. The study used time series data from Global Financial Integrity (GFI) and the World Bank. The study used the Pearson Correlation Matrix to analyse the relationship of between trade facilitation and IFFs from Nigeria. Among others, the results from this study reveal that the quality of port infrastructure and third party logistics partially promotes illicit financial outflows from import over-invoicing; the quality of port infrastructure in Nigeria fully promotes illicit financial inflows from both over-invoiced exports and under-invoiced imports; and customs procedures in Nigeria influences illicit financial inflows.*

Keywords: *Trade Facilitation, Trade Flows, Illicit Financial Flows, Regulatory Framework, Single Window Policy*

1.0 Introduction

Trade facilitation has been comprehensively defined in four operational areas that is, the simplification, harmonization, standardization and modernization of trade procedures. The phenomenon emerged from the weakness of trade liberalization schemes to eliminate non-tariff barriers. The primary goal of trade facilitation is to reduce any transaction cost between business and government (Grainger, 2019). The cost reduction impact of trade facilitation through electronic single window has been observed in countries such as Singapore, Korea, Malaysia, the East Africa Community among others, yet the physical examination of goods and use of paper documentation in export processes still persist at Nigerian ports (Salau, 2018). Reduction of trade transaction costs generate significant trade benefits such as better participation of informal businesses in foreign trade (United Nations, 2016), export diversification (Shepherd, 2009), increased competitiveness, and sustenance of exporting firms (Seck, 2018). Kireeva and Buyonge (2008) had however identified several impediments to these benefits, of which illicit trade - a subset of illicit financial flows (IFFs) - is one of them.

IFFs generally refer to illegal financial flows between countries which negatively affect the socio-economic development outcomes of those countries (Cooper et al, 2018). For instance, the average IFFs percentage to Nigeria's total trade, 12.06 percent from 2008 to 2017, above 10%, indicates severe disruption of trade flows (Global Financial Integrity (GFI), 2020). More so, developing countries like Nigeria are beguiled with weak regulatory framework and paper-based export processes that make them susceptible to the activities that lead to IFFs (The World Bank, 2017; Salau, 2018). IFFs include illicit capital flight, tax and commercial practices like misinvoicing of trade and criminal activities such as illegal markets, corruption or theft (Leung, 2020). Trade misinvoicing is one of the major channels for facilitating IFFs out of developing countries (GFI, 2020). It involves over-invoicing or under-invoicing of exports and imports. Fundamentally, IFFs are difficult to estimate accurately (Chowla and Falcao, 2016). Notwithstanding this difficulty, an

estimate of \$15.7 billion from Nigeria is lost to IFFs annually (Central Bank of Nigeria (CBN), 2015).

Table 1: Trends and Composition of Nigeria's IFFs

Million Dollars	1982-85	1986-90	1991-95	1996-00	2001-05	2006-10	2011-15	2016-20
OM	-1695.34	-627.663	-66.0492	-1370.27	-4813.31	-8885.17	-16792.1	-13979.4
UX	1049.736	1270.535	426.4258	548.2365	4678.181	10827.93	14971.31	13420.68
IFFs Outflows	2745.072	1898.198	492.475	1918.511	9491.489	19713.1	31763.43	27400.1
UM	4695.54	3697.538	2325.494	1571.517	6047.219	12687.73	18840.53	11164.6
OX	-1732	-200.417	-566.649	-614.668	-2222.24	-3773.89	-5846.17	-4507.54
IFFs Inflows	6427.54	3897.955	2892.143	2186.185	8269.463	16461.61	24686.7	15672.14

Source: Author's computation from World Development Indicators (WDI, 2021), International Monetary Fund (IMF, 2021)

The trend of IFFs from Nigeria shows that majority of IFFs outflows were perpetrated through import over-invoicing (OM) with the exception of the periods 1986-90 and 1991-95 where under-invoiced export (UX) exceeded over-invoiced import (OM). In the case of IFFs inflows, under-invoiced import (UM) constitutes the larger part. This indicates that IFFs are largely perpetrated by importing firms in Nigeria. Further observations show that IFFs outflows from Nigeria exceed IFFs inflows. This is sufficient to say that Nigeria is more of a victim than a haven for IFFs. Overall, the values of both inflows and outflows IFFs (in million dollars) in Nigeria are significant enough to adduce that the country is both a victim and a haven.

The World Bank has been assisting governments in capacity building in critical areas for curbing IFFs. Amongst this work is the facilitation of trade and border crossing (The World Bank, 2017). Trade facilitation can help to tackle illegal and counterfeit trade or trade-based money-laundering by increasing the visibility on exported goods and easily exposing trades that make no commercial sense. Governments can efficiently address growing security concerns and the need to ensure there are no potential threats hidden in commercial packages (UN/CEFACT, 2018). Through internet based platforms, transaction information regarding price, volume, and other accompanying costs can be lodged (CBGA, 2015) which could bring about increased transparency in the assessment of duties and taxes, substantial reduction in customs clearance times, and predictability, to direct and indirect savings for both governments and traders (Kireeva and Buyonge, 2008).

Increasing the number of firms participating in the global market is one way to increase trade flows and reap the benefits of trade facilitation. Through increased participation, benefits from products diversification (introduction of untraded products into existing markets) and geographical diversification (expansion of trade in existing products) could be harnessed. OECD (2018) remark that when the role of SMEs as suppliers of intermediate goods and services to large firms with high and direct export participation is taken into account, the importance of SMEs as exporters (direct and or indirect) doubles. For instance, in developed countries like Germany, SMEs hold between 70% and 90% of global market shares in some specialized manufacturing segments, and

account for the bulk of the German international trade surplus (OECD, 2018). However, in less developed regions like Africa which Nigeria belongs to, the share of manufacturing exporters is as low as 14%, in Nigeria, manufacturing exporters' share of total manufacturing is at a disappointingly low 2% (Hoekstra, 2012). According to the World Bank Enterprise Survey (2014) as cited in Igwe *et al* (2017), the number of exporting firms is at the low rate of 20.8% of non-exporting firms, despite the fact that domestically owned firms are more than the foreign owned ones by 61.6% of the total firms sampled. This presupposes that the extremely low trade participation and defective export structure in Nigeria could be resulting from poor implementation commitment to trade facilitation.

Despite the recognition that trade facilitation could curb IFFs, the theoretical and empirical bases for using trade facilitation to curb IFFs are scanty. Seck (2014) assessed the benefits that would result from greater facilitation of trade in Africa. Amoako-Tuffour *et al* (2016) examined the progress in implementing trade facilitation measures in four African regional economic communities. Seck (2018) analyzed the extent to which trade cost impede trade performance. Hoekman and Shepherd (2013) investigated firm-level distribution of benefits from trade facilitation. United Nations (2016) examined the potential impact of trade facilitation reforms on trade competitiveness. Onogwu (2019) affirmed the scarcity of empirical works on illicit financial outflows and the non-existence of a well-known theory to explain illicit financial outflows in any typical economy.

Based on the gaps in literature, this study seeks to provide answers to the following questions: What has been the impacts of IFFs from Nigeria on trade? What is the link between trade facilitation and IFFs from Nigeria? How can the impact of Nigeria's trade regulatory framework on IFFs be assessed?

2.0 Theoretical Framework

The theoretical link between trade facilitation and IFFs can be captured by adapting the New Trade theory which relates trade competitiveness at firm level to the relationship between efficiency (cost reduction via the implementation of trade facilitation measures) and productivity (exports and imports) (Seck, 2018; Krist, 2003). Since IFFs (trade misinvoicing) disrupts trade flows (exports and imports), it follows that, the implementation of trade facilitation measures such as single window policy, eliminates business to customs trade costs (barriers) and paper based processes giving rise to IFFs, strengthens trade regulatory framework cum third party logistics services, which in turn reduce the extent of IFFs disruptions and simultaneously increase trade flows to the level it ought to be. A flow chart summary of this link is expressed below.

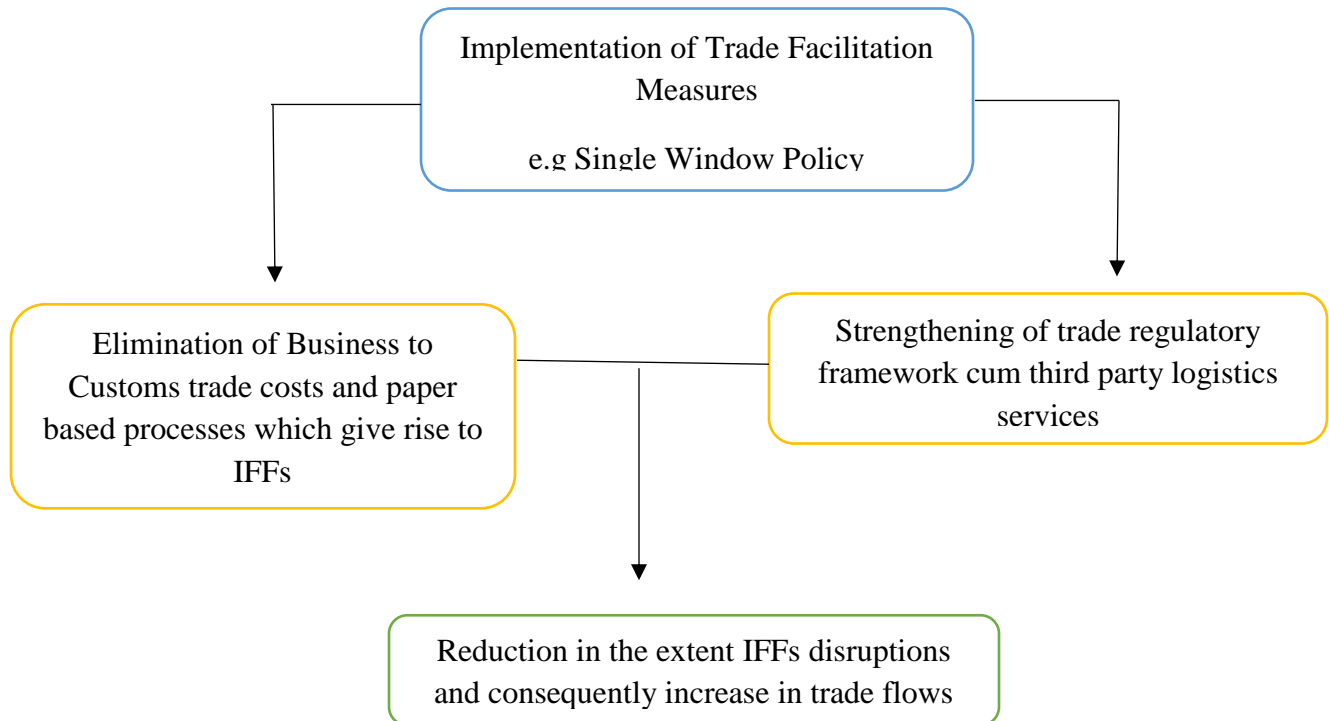


Figure 1: Flow Chart on the Link between Trade Facilitation and Illicit Financial Flows

Below is a brief conceptual review of key variables of interests from the framework above.

Trade Facilitation

Shepherd (2009) considered trade facilitation as the full set of policy measures used to reduce the costs of international trade. This definition is complicit in nature. Hoekman and Shepherd (2013), defines trade facilitation as the elimination of resource waste such as duplicative procedural requirements and paperwork which goes beyond lowering tariffs, reallocating resources for efficiency gains. This definition explicitly captures the problem of paper based export processes and the urgency for full automation of customs and trade processes that is, the implementation of an electronic single widow as in the case with Nigeria.

Electronic Single Window System

A single window system is a paperless system (includes custom automation) aimed at facilitating information exchange for trade and logistic operations, and it provides a basis for connectivity to commercial systems and regulatory systems in other countries (UNESCAP, 2016). Paperless trade or an electronic trade exchange platform is crucial to the countering of trade misinvoicing and tracking of end to end transaction. Paperless trade provides a single entry point for the submission of trade-related information and documentation by exporters-importers (trade invoices, tax assessment), freight forwarders, shipping agents, etc. For example Singapore developed the TradeNet system which reduced turn around for processing documents from 2-4 days to 15

minutes. Korea through the establishment of the uTradeHub saved US\$ 3 billion through productivity increases (UNESCAP, 2016).

Trade Costs versus Trade Barriers

Shepherd (2016) classified trade costs into fixed and variable costs. Variable trade costs refer to the difference between factory gate price received by the producer, and the retail price paid by the final consumer. By contrast, fixed trade costs refer to market entry costs and are paid once only, regardless of the number of units shipped. Grainger (2019) classified these costs into direct and indirect. Direct transaction costs include immediate compliance costs for processing information required to prepare and submit documents, charges and fees associated with setting up and financing customs bonds and guarantees, testing and use of laboratories, inspections, and stamping of documents. Indirect trade costs result from delay at the border, uncertainty about procedures and requirements, and missed or lost business opportunities. Grainger's classification is better than Shepherd's in that it details the trade barriers raising trade costs which further motivates IFFs.

Illicit Financial Flows

International institutions have attempted to conceptualize IFFs based on its source, transfer, use, typology, practices, methods, and constituting elements. Based on source, transfer and use, IFFs includes corruption, smuggling, tax evasion, financing of organized crime like terrorism, etc. (Cooper et al, 2018; GFI, 2020; Onogwu, 2019; and CBGA, 2015). IFFs include illicit capital flight, tax and commercial practices like trade misinvoicing, illegal markets (smuggling), corruption or theft. (Leung, 2020). Of these elements, trade misinvoicing is the major channel for facilitating IFFs out of developing countries like Nigeria (GFI, 2020). Trade misinvoicing primarily consists of the over-invoicing and under-invoicing of imports and export transactions by making false declarations of value on invoices submitted to customs agencies, depending on the intentions of the various actors (GFI, 2020).

Conceptual Framework for IFFs

According to the GFI (2020), IFFs based on mis-invoiced trade consists of outflows which are the sum of over-invoiced import and under-invoiced export, and inflows which are the sum of under-invoiced import and over-invoiced export.

Table 2: Components of IFFs Based on Trade Flows

Trade Flows	Recorded Flows	Recorded Exports			
		Recorded Imports			
	Unrecorded Flows or Informal Cross Border Trade	Legal Unrecorded Flows	Inflows		
			Outflows		
		IFFs Based on Mis-invoiced Trade	IFFs Inflows	Import Under-Invoicing	Export Over-Invoicing
				IFFs Outflows	Import Over-Invoicing

Source: Global Financial Integrity (2020)

3. Data and Methods

The focus of this study is on the impact of trade facilitation on IFFs from Nigeria. Nigeria ranks 7th of the top 10 biggest losers globally and the first in Africa (Akinfala, 2018). The study will use time series data obtained from Global Financial Integrity (GFI) and the World Bank. The scope of this study spans the period 2007 to 2019. The choice of the period is largely informed by the availability of uniform time series data on the variables of interest.

The study will adapt the gravity model in UNECA (2013). The gravity model is a multiplicative model derived from Isaac Newton’s law of gravity. It relates trade facilitation measures to bilateral trade flows. Trade flows is a positively related to trade facilitation measures. Since IFFs is perceived to negatively impact trade flows, then what impacts trade flows positively should negatively impact (counter) IFFs and vice versa. The measures of trade facilitation include the quality of physical infrastructure (consist of roads, ports, airports, and railways), border efficiency (time and number of documents required to trade), regulatory environment (public trust in policy makers, irregular payments and bribes, favoritism in policy decision making, and transparency), e-business (availability of the latest technology and firms' technology absorption) and the Logistics Performance Index (LPI) that regroups elements such as customs, international shipment and timeliness (Seck, 2018). The study will develop two models to answers the research questions. Model one which will relate trade flows as a negative function of IFFs will be used to assess the impacts of IFFs from Nigeria on trade flow. Model two will be used to examine the link between trade facilitation and IFFs and assess the impact of regulatory framework on IFFs. In functional forms models one and two are specified thus:

$$\text{Trade Flows} = f(\text{IFFs}) \dots\dots\dots 1$$

$$\text{IFFs} = f(\text{TA}, \text{QPI}, \text{BE}, \text{EB}, \text{LPI}) \dots\dots\dots 2$$

In explicit and log-linear forms we have:

$$\text{Log Trade Flows} = d_0 - d_1 \text{IFFs}_t + e_t \dots\dots\dots 3$$

$$\text{Log IFFs} = a_0 + a_1 \text{TA}_t - a_1 \text{QPI}_t - a_2 \text{BE}_t - a_3 \text{RE}_t - a_4 \text{EB}_t - a_5 \text{LPI}_t + u_t \dots\dots\dots 4$$

TA = Tariff related costs, QPI = quality of port infrastructure, BE = border efficiency, RE = regulatory efficiency, EB = electronic business usage, and LPI = logistic performance index. The “a”(s) and “d”(s) are the parameters of the models. Lastly, *e* and *u* are the error terms of the models. The study will use both tariff and non-tariff measures from the World Bank database to capture the independent variables. This has the dual advantage of representing both trade costs and trade facilitation measures.

The study used the Pearson Correlation Analysis to analyze the relationship between trade facilitation and IFFs from Nigeria. The technique is used to obtain coefficients that show the magnitude of explained variations and strength of relationship between two variables. The implementation is estimated using Stata 14.

4. Empirical Results and Interpretation

Table 2: Summary Statistics

Variables	Mean	Standard Deviation
OM	13965.9	4325.949
UX	13428.71	2281.813
UM	14681.68	4828.461
OX	4788.452	1220.481
QPI	2.99	0.29
LPI	19.75	2.3
IUI	22.55	13.59
CBRE	3.34	0.24
BCP	3.02	0.27

Source: Author’s computation using Stata 14

Table 2 presents the summary statistics for trade flows (dependent variables) and the proxies for trade facilitation (independent variables). The standard deviations of TGDP, X, M, OM, UX, UM,

OX, LPI, and IUI are greater than 1, while those of QPI, CBRE and BCP are less than 1. This means that the level of variance in the data for Trade flows, LPI, and IUI are high while those in QPI, CBRE and BCP are low. The high variance indicates that the means of trade flows variables, liner shipping connectivity, and individuals using the internet are not reliable representatives of their individual observations.

Table 3: Correlation between Trade Facilitation and Trade Flows in Nigeria

	TGDP	OM	UX	UM	OX
QPI	0.2269	0.5670*	0.3789	0.7504*	0.6698*
	0.4560	0.0433	0.2017	0.0031	0.0123
LPI	-0.3394	0.6145*	0.4688	0.3296	0.3889
	0.2565	0.0254	0.1061	0.2714	0.1891
BCP	0.6157*	0.4667	0.2550	0.7138*	0.5867*
	0.0251	0.1079	0.4004	0.0061	0.0350
CBRE	-0.1346	0.1198	-0.0525	0.1624	0.1927
	0.6611	0.6967	0.8648	0.5960	0.5282
IUI	-0.5993*	0.3039	0.2150	-0.2635	-0.0163
	0.0304	0.3127	0.4805	0.3843	0.9578

Correlation coefficient (first), standard error statistics (second), significant correlation coefficient ()*

Source: Author's computation using Stata 14

Table 3 shows the correlation results. The results show that over-invoiced import (OM), under-invoiced import (UM), and over-invoiced export (OX) are positively correlated with the quality of port infrastructure (QPI) and the proxy for logistics performance index (LPI). The correlation coefficients show that logistics performance index and quality of port infrastructure have effective predictive power over over-invoiced import. This suggests that port operations and shipment cum third party services in Nigeria encourage illicit financial outflows from over-invoiced import. Logistics performance index is positively but not significantly correlated with under-invoiced exports, under-invoiced imports, and over-invoiced exports. This implies that third party services have no effective predictive power over illicit financial inflows and the under-invoiced imports part of illicit financial outflows from Nigeria. The burden of customs procedures is positively correlated with illicit financial outflows from Nigeria but not significant. On the other hand, it is positively correlated and significant with illicit financial inflows to Nigeria. This suggests that customs procedures in Nigeria effectively promotes illicit financial inflows and have no effective impact on illicit financial outflows.

CPIA business regulatory environment (CBRE) rating of Nigeria is negatively correlated with over-invoiced import, under-invoiced import, and over-invoiced import but is not significant, while with under-invoiced export it is negatively correlated and is not significant. This clearly suggests that business regulatory environment, which stands proxy for regulatory efficiency in

Nigeria, has no effective impact on illicit financial outflows from and inflows to Nigeria. Lastly, the number of individuals using the internet (IUI) is positively correlated with over-invoiced import and under-invoiced export, and negatively correlated with under-invoiced import and over-invoiced export, but is not significant. This also suggests clearly that electronic business or internet based platforms has no effective impact on both illicit financial outflows from and inflows to Nigeria.

Based on significant correlation coefficients, the coefficients of determination show that: 32%, 56%, and 44% of variations in over-invoiced imports, under-invoiced imports, and over-invoiced exports, respectively, could be explained by the quality of port infrastructure in Nigeria; 37% of variations in over-invoiced imports could be explained by the logistics performance index for Nigeria; 51% and 34% of variations in under-invoiced imports and over-invoiced exports respectively could be explained by the burden of customs procedure.

5. Conclusion and Policy Options

The study assessed the correlation between trade facilitation and IFFs from Nigeria and the effects of the former on the latter using correlation analysis. The study used time series and ordinal data from 2007 till 2019 due to availability of data for the trade facilitation measures. Based on the results, the study concludes that the quality of port infrastructure and third party logistics partially promotes illicit financial outflows from import over-invoicing; the quality of port infrastructure in Nigeria fully promotes illicit financial inflows from both over-invoiced exports and under-invoiced imports; and customs procedures in Nigeria influences illicit financial inflows.

The study strongly recommends the elimination of custom delays which may arise from physical inspection of goods, paper documentations, bribery etc. to improve border efficiency and increase the flow of goods and services and the contribution of trade to economic growth in Nigeria. Nigeria needs to improve on her absorptive capacity for support from external sources. There is need to audit port infrastructure, third party services, and customs procedures for dysfunctional elements or omissions encouraging and giving rise to illicit financial flows into and from Nigeria. There is also the need to research into mechanisms through which regulatory efficiency and E-Business can effectively curb the scale of illicit financial flows into and from Nigeria. The limitations of this study basically emanate from availability and nature of data to proxy trade facilitation. The number of observations are small. This prevents the use of standard regression while the nature of the data, which is ordinal, does not allow for the conduct of stationary test.

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