



Roles of trade logistics to the development of international trade: A perspective of Nigeria

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Background: Trade logistics service delivery is a key aspect in a country's economic success in both national and international trade activities. It is critical in attaining competitive advantages for businesses actively involved in international trade. The improvement of services, infrastructure and logistics has helped to reduce delays and cost in cross-border goods transactions, resulting in a considerable growth in international trade.

Objective: The study investigates the contribution of trade logistics service delivery to the growth of international trade. Overall improvement of logistics services could be a significant step towards long-term facilitation of trade.

Methods: Respondents were given questionnaires using a simple random selection technique. Structural equation modelling was then used to examine the structural relationships among variables that had been assessed.

Findings: The results reveal that the delivery of trade logistics services has a substantial impact on trade development. Improving the logistics industry also allows for increased trade volume.

Conclusion: It was suggested that governments, specifically middle-income nations, explore trade performance measurements in order to better enhance the exports and imports processes as well as to efficiently and effectively boost trade through the optimisation of the supply chain management.

Keywords: logistics; international trade; logistics performance; logistics service delivery; supply chain management.

Introduction

The logistics industry has recently become more significant in global trade as international trade volume has increased. With the advent of globalisation, international borders have vanished, and this has enhanced the importance of the logistics sector in global trade. Logistics has grown to be one of the most dynamic industries in the world. Gani (2017) defined logistics performance as a procedure necessary for the secure and safe delivery of goods from one nation to another. In order to facilitate trade, change export and import procedures and optimise the supply chain without expending a sizeable additional amount of financial and human resources, poor nations need effective trade logistics solutions. As a result, efficient supply chain management and logistics are crucial facilitators of global trade. Logistics services become more crucial as nations strive to be among the top industrial nations and production processes become more advanced and complex.

The coronavirus disease 2019 (COVID-19) outbreak had both direct and indirect repercussions on the economies of Africa, particularly Nigeria, which was severely impacted (Bello & Gidigbi 2021a). Because of the disruption of intra-African trade caused by the closure of ports, airports, borders and businesses, the transit of products was significantly hampered. The pandemic caused a severe economic collapse and disruption in international trade, as well as the global lockdown of social and commercial activities. Production of necessities was suspended, and major economic operations were stopped. Disruptions to the supply chain at Nigerian seaports, if not addressed, will have a substantial impact on organisational output and profitability. Since 2000, Nigerian seaport enterprises have experienced considerable revenue losses as a result of supply chain disruptions (Oguche 2018). Because of the pandemic, most nations have realised the importance of accelerating digital trade facilitation, making long-term technological investments related to trade and making structural changes that may allow for less contact during trade processes and facilitation (Bello & Gidigbi 2021a). This has led to increased awareness of the necessity of

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necessary mitigation measures towards the proposed African Continental Free Trade Agreement (AfCFTA).

International trade is facilitated by logistics services, which also greatly advance the local economy. Since an absence of operational procedures and logistical infrastructure can occasionally be a substantial obstacle to integration of global trade, the effectiveness and quality of logistics services can have a considerable effect on international trade (Devlin & Yee 2015). Enhanced trade logistics can increase the size of trade and provide scope and scale in manufacturing and distribution activities when mixed with an open economic environment. New business models resulting from e-commerce and the digital revolution are having an impact on supply chain design. In order to enhance the shopping experience, these models incorporate more intra-company and inter-company operations (related to information, financial and physical flows). As a result, expanding distribution networks through infrastructure development and enhancing the value of transportation services may be crucial steps in creating transport systems that encourage e-commerce in emerging nations. E-commerce logistics solutions aim to increase collaboration, supply chain transparency, customer satisfaction, distribution and logistics efficiency, cost reduction and on-time delivery (Rodriguez 2018).

Within the local economy, logistics services establish sectoral links. They also tie the domestic and international economies together. As one of the real aims of production companies is to safely transport their goods to customers in a cost-effective manner with least time lags, efficient transport and logistics systems enhance the integration of numerous interdependent areas of production, such as manufacturing, agriculture, agro-food, tourism, with several others of a domestic economy.

Even though the contributions of logistics to a country's national output might not be quite as competitive as the other areas, the function which logistics play in fostering an economy's operations cannot be undervalued or neglected. The facilitation of international trade is one well-known link connecting transportation and logistics and national growth, which, in the proper situations, leads to a slew of other positive economic and social benefits (OECD/WTO 2013). Since it enables companies to efficiently carry out export and import of goods and services and related operations, the transportation and logistics sector is essential to fostering global trade.

Statement of the problem

It would be necessary to increase the size and effectiveness of support networks, particularly logistics services, in order for global trade to continue to grow and for numerous nations to be willing to speed up their inclusion into the international trading system. Poor logistics services, including insufficient cross-border management; ineffective customs clearance at ports; a disorganised and subpar transportation

infrastructure; expensive and irregular shipping (via long, indirect route options); delays in tracking and tracing shipments; inefficiencies in terminal dealing and clearance of goods; a lack of cool storage facilities at ports; and difficulties in certifying product quality are issues impeding effective international trade (Salawu & Ghadiri 2021). The worldwide economic crisis brought on by the COVID-19 pandemic had a massive impact on how supply chains were able to grow sustainably. Seaports, which were crucial connections in marine supply chains, were also impacted by the changes, and several of them went out of business. While some of them were operating with lower cargo volumes during the epidemic, in other circumstances, transshipment volumes actually increased. In order to address the limits brought on by the pandemic, a firm may adopt pro-active (offensive) activities such as assist in the establishment of new maritime supply networks. The term 'adaptive (defensive) measures' refers to activities done by port terminals as a result of modifications made to the current maritime supply chains as a result of the epidemic in the port's foreland or hinterland (Mankowska et al. 2021).

Nations all over the world will continue to be pushed by trade liberalisation forces to become more involved in and reap the benefits of a globalising world with growing potential markets. A key element in enabling nations to trade with fewer limitations and at lower costs can be the level of development of local and international logistics services. Whether the level of logistics services facilitates greater commerce is a crucial empirical question, even though improving overall logistics services can help shape long-term facilitation of trade. Since there aren't many empirical studies using this methodology, the issue merits more research.

Despite the importance of logistics in supporting commercial activity, there is often little examination of it. According to the existing literature, there is very little comprehensive empirical investigation on the implications of logistics on trade performance. The inadequacy of numerical measurements measuring logistics performance in a relevant and regular manner, having significant geographical scope and industry specialisation, is the primary source of this shortcoming (Shepherd 2011). The COVID-19 epidemic has had a direct impact on logistics companies, which are involved in the flow, storage and transfer of commodities. Logistics companies enable trade and commerce and assist companies in getting their products to clients as an essential component of value chains both domestically and beyond international borders. Therefore, supply chain interruptions brought on by the pandemic could affect the sector's competitiveness, economic expansion and job creation. However, the study of Bello and Gidigbi (2021b) on the patterns of trade flow in Nigeria during this pandemic period showed that trade patterns globally and in African countries (Nigeria in particular) decreased both during and after the COVID-19 epidemic. As a result, it was determined that, in contrast to the pre-COVID-19 commerce experience, there was an increasing movement of trade to digital networks during this

time. Temporary COVID-19 trade restrictions like import bans, export restrictions and border closures endanger globalisation and free trade agreements (FTAs), which Nigeria is a part of (Obayelu, Edewor & Ogbe 2020). By guaranteeing access to food, ensuring access to medical supplies to treat those affected, ensuring farmers have the inputs they need to produce food, supporting jobs and maintaining economic activity during the global recession, trade in both goods and services plays a critical role in combating the pandemic and limiting its effects.

Objectives of the study

The main aim of this study is to examine the roles of trade logistics service delivery on international trade. Other specific objectives are to:

1. To examine the challenges militating against the contribution of logistics and supply chain service delivery that affects trade development in Nigeria which government policies can support by infrastructure development in trains and airways, strengthening of relations with other nations, growth in the manufacturing and export industries and expansion of e-commerce.
2. To detect the relationship of trade logistics service delivery on the international trade development.

Research questions

1. What are the challenges militating against the contribution of logistics and how supply chain service delivery affects trade development in Nigeria?
2. Does a relationship exist between trade logistics service delivery and international trade development?

Research hypothesis

Hypothesis: There is no significant relationship between trade logistics service delivery and international trade development.

Literature review

This section reviews the existing work on the logistics of international trade and management of the logistics of trade to expose the previous positions by the authors and their limitations and how the issues raised have become prevalent in Nigeria.

Logistics and international trade

According to Sharipbekova and Raimbekov (2018), logistics refers to the control and movement of resources, information and items between locations of consumption and manufacturing. Sevgi and Tezcan (2017) claimed that the process of moving goods to and from a corporation is what is meant by logistics. The performance of six valuation measures, including customs, logistics skill, international shipping, infrastructure, tracking, tracing and timeliness, was used by the World Bank (2015) to define logistics efficiency.

A wide range of transportation and logistics services are offered, including services offered by seaports, land-based transportation systems and air transportation, as well as the corridors within these modes of transportation (roads, railways and sea lanes) and their connectivity. These infrastructure improvements include high-speed roadways, terminal infrastructures, cool storage warehouses and runway length. The most expensive component of trade logistics is transportation, which needs the right infrastructure to be viable (OECD 2011). Transport and logistics raise the price of international trade just as much as physical distance, as Arvis et al. (2016) have shown. Access, cycle time, dependability and cost of logistics are directly impacted by the state of the available infrastructure and the degree of integration. Infrastructure in the area needs to be continuously and strategically upgraded if the logistics and supply chain ecosystem is to remain competitive. It also needs funding, industrial expertise and high-performing government institutions. Therefore, it can be said that logistics is the key sign of economic growth, which is clearly reflected in trade facilitation and company competitiveness. Nigeria's logistics infrastructure, however, has significant regional and national deficiencies, which adversely affects its ability to compete in international trade (Nigeria Logistics Sector 2021).

International trade, according to Ngige (2018), has always been and continues to be an economic driver that has fuelled business, fostered technology and growth, diffused cultural patterns across the globe, stimulated exploration and colonisation and frequently fanned the fires of conflict. International trade has a long and illustrious history that parallels the rise of civilisation. International trade has facilitated the exchange of products and raw materials between nations since ancient times. Nevertheless, such trade was frequently done on the basis of barter and had a low volume when contrasted to contemporary standards.

Presently, in Nigeria, the sector has not been able to fulfil its full potential as a result of a severe infrastructure deficit, government policies that make conducting business more difficult, a shoddy road system, unpredictable electricity, ingrained corruption and many taxes (Nigeria Logistics Sector 2021). Therefore, costs are transferred to end users, rendering local stakeholders uncompetitive since they are unable to pay their financial obligations, while foreign-owned businesses that have the resources to bear greater levels of business risk will fare better under these circumstances. International trade, according to Yakubu and Akanegbu (2018), can stimulate the growth of monetary systems of record-keeping and accounting as well as the overall viability of commerce while unquestionably aiding and accelerating the political and economic growth of the whole western world.

Managing the logistics of trade

Governance of logistics is crucial for better trade. Trade logistics policies are essential because effective government

policies are a requirement for logistics efficiency. Effective trade logistics takes into account institutional elements of logistics, such as governmental regulations, firm-level operational and administrative procedures, supply chains and national trade procedures for the inward and outward flow of goods. The substantial increase in the volume of international trade over the past 20 years calls for the reduction of operational bureaucracies, especially those time-consuming, expensive and ineffective trade regulations. Complex trade administration procedures may encourage a fraudulent environment, which may result in more inefficiency. Behind-the-border limitations result in expensive frictions in transportation, communication and services, claim Malik and Awadallah (2013). These scholars also asserted that the Middle East and North African nations' limited product and service mobility occasionally violates economic common sense.

Traders engaging with public sector workers, including customs officers, might confront substantial challenges in countries with low administration and inadequate organisations overseeing trade transactions and processes. Absenteeism of customs personnel from their jobs, time-consuming test procedures (requiring extra signatures for products being cleared) and a lack of cooperation and communication with other governmental bodies can all make customs clearance more challenging. Corruption at Nigerian ports has a negative impact on the operational efficiency of the ports and the overall economic health of the nation. These problems have lasted for a long time; however, a programme against corruption started by the Maritime Anti-Corruption Network (MACN) and its partners in Nigeria since 2012 has shown that progress against the issue is still feasible (Collective Action for Reforms in Nigeria Ports, n.d.). In order to lessen the incidence of corruption in ports around the world, the MACN brought together a global coalition of more than 100 shipping businesses. Following a risk analysis of five Nigerian ports, the network collaborated with government organisations, port administrations and civil society to put into place a number of anticorruption measures. These included creating a grievance process, employing an e-governance portal and standardising processes. Also, the Nigerian office of the United Nations Development Program (UNDP), which already had a working relationship with Nigerian authorities on issues of commerce and governance, was crucial in starting and organising the reforms. The UNDP collaborated on the reforms with three anticorruption organisations in Nigeria — the Independent Corrupt Practices Commission, the Technical Unit on Governance and Anti-Corruption Reforms and the Bureau for Public Procurement. The participation and cooperation of these three organisations, which typically work independently, provided a crucial framework for putting the initiative into action.

Section 98B of the *Criminal Code Act* of Nigeria mandates a 7-year prison term for anyone who solicits bribes in

connection with the actions of a public official, and Section 99 of the Act outlaws 'extortion by public officers' as a felony and imposes a 3-year jail term on it. (InfoGuide Nigeria n.d.) In response to this, and in defiance of it, the law seeks to put an end to it like the malignant cancer that it is. Worrying is when bribery is sought by underpaid customs officers, the situation becomes even more complicated. Shepherd's (2010) assessment, related to firm data, found that inferior trade facilitation (evaluated by lengthier export and import lead time) was linked to higher reported levels of trade-related corruption, as poor performance encouraged companies to break the laws by offering 'fast money'. Hummel (2001) discovered that shippers were prepared to pay a premium for speedier service in a previous research. According to the OECD/WTO (2016), transportation and logistics companies are in an undesirable situation to be subjected to a 'hold up' issue when dealing with (possibly) corrupt police and customs agents, as well as other officials.

Workers at border control zones in low and middle-income nations are usually underpaid, and public servants have a temptation to supplement their wages by soliciting for bribes. As a result, transportation and logistics companies face obstacles such as gaining access to critical infrastructure (roadways, ports) or completing required processes (customs formalities and other border checks). Needless to say, logistics providers may be lured towards unauthorised payments or 'fast money' transactions in order to escape such contractual limits (Olken & Barron 2019).

The market system also can make logistics operations more complicated and function as a roadblock to enhancing operational efficiency. Because of the strong monopolies or duopolies, the unavailability of competing logistical services (or the existence of imperfect markets) may result in greater expenses for traders, as competition in supplying logical services might be impeded. According to Devlin and Yee (2015), the trucking industry, which is a crucial channel for goods throughout most Middle Eastern and North African nations, is rife with cargo monopolies, and pricing practices are inefficient because high rates imposed on nonregulated goods and services are used to offset low rates obtained for important goods.

As a result of these activities, new competitive enterprises are unable to emerge, and established companies seem unable to benefit from sector economies of scale. They also pointed out that in many Middle Eastern and North African nations, airfreight is mostly offered by government airlines, with competitiveness stifled by licensing regimes and the government's regulation of all business port services. Enabling private providers to enter the market and abolishing stringent licensing schemes are critical steps toward improving the logistics sector's quality and efficiency of service. This can be accomplished by creating a welcoming environment for investors. There is also the issue of port access, as most states with seaports have no rail route

connecting them, with the exception of Apapa Ports. The poor condition of the roads should be remedied, and the government should prepare to improve the rail system by extending it to all of the country's ports.

Research methods

Survey research was adopted; the population was derived from operators at the four different ports in Nigeria. The sample size was 353 out of the total population using Mugenda and Mugenda (2003) sample size determination. Convenience sampling was used in choosing the ports while a simple random sampling technique was applied in selecting the respondents. Questionnaires were administered to the respondents with a five-point Likert scale reference. Content validity and Cronbach's alpha determines the validity and reliability of the research instruments. The hypotheses were measured using descriptive and inferential statistics. The demographic section was analysed using descriptive analysis, while the hypothesis was tested using structural equation modelling (SEM) analysis.

Result and discussion

Table 1 revealed that 6.2% of the participants have a shipping company, 32.6% are shipper-trader-importers, 21.2% are freight forwarders, 6.2% are terminal operators and 33.7% have other stakes in the port industry. In all, 77.3% of the participants are male and 22.7% are female, thus clearly demonstrating balanced and diversified responses across the gender. However, a large number was expected to be of male gender because mostly the male gender dominates at the port. Marital status-wise, 27.5% of the respondents were single, 69.4% were married and the remaining 3.1%

were divorced. This shows that a high percentage of the respondents are married. Age-wise, 15.6% of the participants are between 18 and 20 years of age, 35.7% between 31 and 40 years of age, 39.9% between 41 and 50 years of age, while the remaining 8.8% were 50 years and above. This shows that a high percentage (76%) of the respondents are between 31–40 and 41–50 years of age. It can be deduced that a majority of the respondents are adults with a wider knowledge of port activities. In all, 12.5% of the respondents had an Ordinary National Diploma (OND), 63.2% had a degree, 21.2% had a master's degree and the remaining 3.1% were PhD holders. On the issue of port preference, 54.7% (193) of the respondents prefer Apapa Port, 30% (106) prefer Tin Can, 3.1% (11) of the respondents prefer Calabar Port and 12.1% (43) prefer Port Harcourt.

As shown in the Table 2, the major factor based on mean value is cargo safety (3.07), followed by industrial harmony (2.93), adherence to ship arrival (2.90) and inventory management systems (2.81). The least important factors were transit time (2.35), access to port (2.20) and port-hinterland road network (2.13).

Table 3 showed that road haulage charge (48.1%), transit time (51.8%), access to port (60.1%), port-hinterland road network (6.2%), number of agencies (43%) and custom charges (43.1%) were rated very bad by the respondents, while road transport vehicles (43.1%), reliability of service (50.7%), warehouse availability (53.8%), documentation process (66.3%), cargo safety (48.7%), port tariffs (43.1%), tracking facilities (53.8%), clearance procedure (41.9%), intermodal facilities (51.8%), single window system (51.3%), packaging system (53.8%), material handling (51.3%), inventory management system (60.1%),

TABLE 1: Demographics of respondents.

Description	Element	Frequency	Percentage (%)
Stake at port	Shipping company	22	6.2
	Shipper-trader importer	115	32.6
	Freight forwarder	75	21.2
	Terminal operator	22	6.2
	Others	119	33.7
Gender	Male	273	77.3
	Female	80	22.7
Marital status	Single	97	27.5
	Married	245	69.4
	Divorced	11	3.1
Age (in years)	18–20	55	15.6
	31–40	126	35.7
	41–50	141	39.9
	Above 50	31	8.8
Educational qualification	OND	44	12.5
	Degree	223	63.2
	Master	75	21.2
	PhD	11	3.1
Preferred port	Apapa Port	193	54.7
	Tin Can	106	30
	Calabar Port	11	3.1
	Port Harcourt	43	12.2

OND, Ordinary National Diploma.

TABLE 2: Descriptive statistics of trade logistics and supply chain contribution to international trade.

S/No.	Elements	Mean	Standard deviation	Skewness	Kurtosis
1	Road transport vehicles	2.65	1.007	-0.009	-0.421
2	Road haulage charge	2.55	1.054	0.190	-0.635
3	Transit time	2.35	0.854	-0.152	-0.796
4	Reliability of service	2.60	0.896	0.088	0.357
5	Access to port	2.20	0.996	0.535	0.053
6	Port-hinterland road network	2.13	1.073	0.956	0.750
7	Warehouse availability	2.75	0.827	0.148	0.668
8	Documentation process	2.78	0.693	0.310	2.401
9	Cargo safety	3.07	0.939	-0.153	0.099
10	Port tariffs	2.75	0.880	0.722	0.508
11	Tracking facilities	2.84	0.792	0.274	0.577
12	Clearance procedure	2.66	1.096	0.439	-0.073
13	Intermodal facilities	2.53	0.950	-0.443	-0.856
14	Single window system	2.63	0.947	-0.051	0.005
15	Packaging system	2.62	0.892	0.013	0.396
16	Material handling	2.68	1.068	0.029	-0.208
17	Inventory management systems	2.81	0.914	0.120	0.820
18	Number of agencies	2.67	1.048	0.052	-0.702
19	Adherence to ship arrival	2.90	0.872	-0.101	0.187
20	Adherence to ship departure	2.71	0.869	-0.558	-0.280
21	Industrial harmony	2.93	0.857	-0.179	0.401
22	Custom charges	2.65	1.027	0.346	-0.187

TABLE 3: Respondents' responses on trade logistics and supply chain elements.

S/No.	Factors	Ratings					Total
		Very bad	Bad	Moderate	Good	Very Good	
1.	Road transport vehicles	55	84	152	51	11	353
		15.6	23.8	43.1	14.4	3.1	100
2.	Road haulage charge	64	106	117	55	11	353
		18.1	30	33.1	15.6	3.1	100
3.	Transit time	66	117	148	22	-	353
		18.7	33.1	41.9	6.2	-	100
4.	Reliability of service	44	97	179	22	11	353
		12.5	27.6	50.7	6.2	3.1	100
5.	Access to port	102	110	119	11	11	353
		28.9	31.2	33.7	3.1	3.1	100
6.	Port–hinterland road network	117	117	97	22	-	353
		33.1	33.1	27.5	6.2	-	100
7.	Warehouse availability	22	97	190	33	11	353
		6.2	27.5	53.8	9.3	3.1	100
8.	Documentation process	11	86	234	11	11	353
		3.1	24.4	66.3	3.1	3.1	100
9.	Cargo safety	22	55	172	82	22	353
		6.2	15.6	48.7	23.2	6.2	353
10.	Port tariffs	11	137	152	33	20	353
		3.1	38.8	43.1	9.3	5.7	100
11.	Tracking facilities	11	97	190	44	11	353
		3.1	27.5	53.8	12.5	3.1	100
12.	Clearance procedure	53	99	148	20	33	353
		15	28	41.9	5.7	9.3	100
13.	Intermodal facilities	75	55	183	40	-	353
		21.2	15.6	51.8	11.3	-	100
14.	Single window system	53	77	181	31	11	353
		15	21.8	51.3	8.8	3.1	100
15.	Packaging system	44	88	188	22	11	353
		12.5	24.9	53.3	6.2	3.1	100
16.	Material handling	66	53	181	31	22	353
		18.7	15	51.3	8.8	6.2	100
17.	Inventory management systems	33	64	212	22	22	353
		9.3	18.1	60.1	6.2	6.2	100
18.	Number of agencies	53	99	121	69	11	353
		15	28	34.3	19.5	3.1	100
19.	Adherence to ship arrival	22	75	181	64	11	353
		6.2	21.2	51.3	18.1	3.1	100
20.	Adherence to ship departure	44	66	190	53	-	353
		12.5	18.7	53.8	15	-	100
21.	Industrial harmony	22	64	192	64	11	353
		6.2	18.1	54.4	18.1	3.1	100
22.	Custom charges	44	115	132	42	20	353
		12.5	32.6	37.4	11.9	5.7	100

adherence to ship arrival (51.3%), adherence to ship departure (53.8%) and industrial harmony (54.4%) were rated *moderate*. None of the factors was rated very good by the respondents.

Hypothesis testing

Structural equation modelling

To examine the causal relationship between the constructs of trade logistics and international trade, SEM by means of maximum likelihood estimation (MLE) using Analysis of a Moment of Structures (AMOS) 22 (IBM Corporation, Armonk, New York, United States) was employed. The two-stage approach for SEM – analysing the measurement model and structural model stages – was used.

Convergent validity

Table 4 demonstrates that the standardised loading elements were noteworthy because they surpassed the cut-off value of 0.50. The average variance extracted (AVE) of latent constructs exceeded the acceptable value of 0.50, with values in the range from 0.527 to 0.604. This means that their reported constructions contributed for more than half of the variations found in the items (Hair, Ortinau & Harrison 2010; Norazah 2014). This confirms the convergent validity of this instrument, which means the scale measured what it intended to measure.

Trade logistics service delivery has a significant influence on development of trade, with $\beta = 0.246$, $p < 0.000$.

TABLE 4: Structural model assessment.

Direct hypothesis	Original Sample (O)	STDEV	T Statistics (O/SD)	p	Decision
Trade logistics service delivery -> development of trade	0.246	0.053	4.669	0	Accepted

SD, standard deviation.

The results revealed that a majority of the respondents rated those challenges moderately and found out that trade logistics service delivery have a significant effect on development of trade. These findings were related to Santos-Paulino (2008), who found out that there is not only a robust confident link between exports and development but that the composition of those exports is significant in determining the strength of progression. Also, Luttermann, Kotzab and Halaszovich (2017) and Kong (2010) discovered that there is a statistically significant association between logistics and trade.

Conclusion and recommendation

The research investigated the impact of trade logistics services on international trade. The research found that the delivery of trade logistics services has a substantial impact on trade development. Enhancing infrastructure and logistics performance is the most effective way of promoting international trade and hence boosting economic performance. This study offers insight into multilaterally agreed-upon initiatives to enhance the delivery of logistics services and the efficiency of global supply chains. It also encourages companies to devote more resources to trade facilitation in order to boost international trade.

It was recommended that:

- Governments, especially those in middle-income countries, are investigating trade performance metrics in order to optimise the import and export processes and the supply chain in order to grow commerce more effectively and efficiently. Also, governments should demonstrate a genuine approach to eradicating logistics and international trade practitioners' corruption and fraudulent acts.
- Governments should also improve the international logistics infrastructure and systems, which will increase efficiency, decrease intermediate steps and improve departmental coordination. Digitisation through the deployment of technologies could increase visibility and achieve transparency.
- Improving logistics performance benefits both importers and exporters by facilitating the exchange of goods and services across borders, and policymakers should be aware of this and reduce bottlenecks associated with bureaucracy that create windows for malpractice. More so, flexibility, appropriate decisions and the conveyance of adequate policies address supply chain disruption as a result of pandemics like COVID-19 in line with best and global practice.
- The government needs to improve the connection between international trade and international logistics, as

well as implement policies to promote international trade and international logistics development.

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Competing interests

The authors have declared that no competing interest exists.

Authors' contributions

Y.O.S. is a PhD student and the project is a prerequisite for his programme, while S.M.G. is his main supervisor in the project and serves as a co-author of the article.

Ethical considerations

This article followed all ethical standards for a research without direct contact with human or animal subjects.

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Data availability

Data sharing is not applicable to this article as no new data were created or analysed in this study.

Disclaimer

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