

Managing Supply Chain Disruptions in Nigerian Seaport Companies

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ABSTRACT

In Nigeria, seaport companies have lost significant revenue since 2000 because of supply chain disruptions. If not mitigated, supply chain disruptions at Nigerian seaports will significantly affect organizational output and profitability. The purpose of this research was to explore strategies some seaport business leaders use to mitigate supply chain disruptions in Lagos, Nigeria. Supply chain management theory was the conceptual framework for this single case study. Data were collected using semistructured interviews with 4 participants from a Nigerian seaport company that adopted successful strategies to mitigate supply chain disruptions and review of company documents for methodological triangulation. Using thematic analysis, the 5 primary themes were corruption, seaport congestion, bureaucratic bottleneck, equipment failures, and employee disputes.

Keywords: Nigeria; Supply chain disruptions; Seaport companies; Corruption; Seaport congestion; Organizational output.

Introduction

Supply chain disruptions are becoming common. Between 2010 and 2014, leaders of Nigerian seaport companies lost \$20 million; the loss has been attributed to supply chain disruptions (Somuyiwa & Ogundele, 2015). Despite privatization and concessions of Nigerian seaport terminals to make the seaports more efficient, supply chain disturbances are increasing. Disruptions in supply chains can have a significant negative impact on organizational output and profitability (Simamora, Aiman, & Subiyanto, 2016). Business leaders cannot prevent supply chain disruptions altogether but can respond successfully to the reduce the impact by using effective strategies and innovation capabilities (Zander, Zettinig, & Makela, 2013).

Literature Review

Supply Chain Management

The supply chain disruptions are unplanned and unanticipated events that negatively affect the normal flow of goods and material across the supply chain. The supply chain disruption has a profound impact on business performance. According to Son and Orchard (2013), the supply chain disturbances are increasing and could be costly to businesses. The supply chain disruption increases the cost of goods sold minimizing the profit margin and hindering performance, which could decrease shareholder value (Macdonald & Corsi, 2013).

Managing the supply chain is a challenging task to businesses. Therefore, integrated process-oriented design, competent management to control of supply chain focusing on cost reduction, cargo management, and customer service is necessary to remain sustainable (Chand & Agarwal, 2015). Also, a robust logistic system with real-time monitoring for faster response and time and fleet utilization could help minimize any hindrance or disturbance in the supply chain (Chand & Agarwal, 2015).

The customers are interested to know the status of goods in the distribution channel. Communication between all supply chain participants, including government agencies, shops, agency offices, and company agents is important

in managing a maritime supply chain. A sound information technology will ensure continuous flow information regarding the cargo status at various points in distribution channel so that a responsible party can make a proper plan to manage maritime logistics (Chand & Agarwal, 2015).

Lopez and Poole (1998) noted that the maritime supply chain includes all of those activities associated with moving goods from the shipper to the consignee. The productivity will result when companies manage its relationships with all responsible parties in the supply the chain. The participants in the maritime supply chain include financial institutes, customs, law enforcement, exporters, ship owners, shippers, shipping agents, shipping consignee agents, forwarding agents, stevedores, and so forth (Chand & Agarwal, 2015).

The success of an organization in a competitive business environment depends on company's ability to remain innovative (Yurov & Botella, 2014). Tolmay and Badebhorst (2015) stated innovative approach to streamlining supply chain operation not only to improve supply chain performance but also to reduce inherent risk. For example, one innovative approach in managing supply chain includes creating a workplace checklist of processes within the company's value chain and constantly self-evaluating and assessing progress made (Wolfs, Takakura, Rezende, Vivaldini, & Antonioli, 2015).

Collaboration

Most organizations often face many challenges while dealing with supply chain participants (Gawankar, Kamble, & Verma, 2013). It is important that supply chain business leaders build a collaborative relationship to improve supply chain process and to benefit customers. According to Narasalagi and Veerendrakumar (2015), supply chain cooperation will help companies achieve competitive advantages and supply chain collaboration will improve the company's image, recovery, market position, security, and adaptability (Soosay & Hyland, 2015). The collaborative relationship will reduce supply chain risk and disruptions (Yu, Xiong & Cao, 2015) by building a cohesive and functioning team that will foster a supply chain culture within the network (Negi & Anand, 2015). Moreover, collaborative relationships will reduce uncertainties, reduce transaction cost, and maximize business opportunities (Kang, Moon, & Moon, 2015). When business leaders form a positive connection, there will be job satisfaction amongst supply chain partners leading to enhance engagement (Di Paolo, 2016), overall process improvement (Scholten & Schildner, 2015), and customer satisfaction (Solakivi, Toyli & Ojala, 2015).

However, the relationship between supply chain partners may not be pleasurable because of existing sour relationships because of supply chain uncertainties and disruptions (Simangunsong, Hendry & Stevenson, 2016). To improve a relationship with existing partners or new partners, a business leader needs to focus on building trust through effective communication and sharing of information (Nehzat, 2015). According to Fang and Shou (2015), trust and honesty amongst supply chain partners will result in ultimate unity in supply chain process. Furthermore, the study revealed that trust amongst supply chain partners would improve the overall quality of organizational performance (Di Paolo, 2016).

Communication

Effective communication among supply chain participants plays a significant role in building trust and supply chain collaboration (Zsidisin, Hartley, Bernardes & Saunders, 2015). Scholten and Schilder (2015) noted that effective

communication between supply chain partners would improve working relationships and the level of trust in integrating, coordinating, and overall management of supply chain process. Simangunsong, Hendry, and Stevenson (2016) stated that effective communication and trust play an important part in addressing supply chain uncertainty and avoiding supply chain disruptions.

Supply Chain Technology

Business leaders invest in technology to streamline business process, share information, and to communicate with stakeholders (Kwon, 2015). Information technology is useful to propagate information and to communicate with its supply chain partners to address uncertainty and to prevent supply chain disruptions (Senarathna, Warren, Yeoh & Salzman, 2014). In the era of the internet, information technology plays an important role in e-commerce. Supply chain business leaders use e-commerce to respond to customer's demand (Hajli, Sims, & Shanmugam, 2014) and use e-collaboration to interact with supply chain partners (Eyers, & Potter, 2015). The use of information technology in e-commerce and e-collaboration minimize bottlenecks in supply chain process to avoid disruption (Caboni & Bruni, 2015). Sharma and Lijuan (2014) noted that information technology in e-commerce has made transactions very convenient.

Supply Chain Sustainability

In the modern era of the global economy, business leaders need to revamp the traditional way of doing business. Otherwise, management will have competitive disadvantages (Pettit, Croxton, & Fiksel, 2013). Nigeria is no exception when the country is operating in international markets. Nigeria, along with other African countries is facing a fierce challenge to remain competitive (Cruz, 2013). The problems with supply chain disruption are not going away soon (Zander, Zettinig, & Makela, 2013) and therefore, it is important that seaport companies in Nigeria have effective strategic tools to prevent, mitigate, and to minimize the damage from supply chain disruptions. Craighead, Blackhurst, Rungtusanatham, and Handfield (2007) studied the severity of supply chain disruption to businesses.

Globalization of Supply Chain

Supply chain trade in global arena involves the exchange of goods across borders. In the literature, different authors had described trade with a new set of terminology (Baldwin & Lopez-Gonzalez, 2015). The scope of supply chain trade begins with the sourcing of raw materials and ends up in the customer's hand as products. In between, there are many activities such as procurement, replenishment, conversions, and delivery (Baldwin & Lopez-Gonzalez, 2015). Up to 1980s, G7 nations which included the United States, Canada, France, Germany, Italy, Japan, and the United Kingdom were the front runners in supply chain trade (Baldwin & Lopez-Gonzalez, 2015). The global manufacturing was high among G7 countries in the 1970s amounting to over 70% of world manufacturing (Baldwin & Lopez-Gonzalez, 2015). The United States, Germany, and Japan accounted for more than 50 percent of global manufacturing. Between 1970 to 2010, the manufacturing dropped from 71% to 46% (Baldwin & Lopez-Gonzalez, 2015), because of front-runners like China, Korea, India, Indonesia, Thailand, Turkey, and Poland, whose production had blossomed (Baldwin & Lopez-Gonzalez, 2015). After the 1980s, the globalization started with increasing trade between high tech and low wage nations (Baldwin & Lopez-Gonzalez, 2015). However,

companies were facing challenges in managing supply chain because of high supply chain activities, inventory management, customer service, and goal restructuring (Deasi et al., 2015). Now, the companies' leaders started approaching supply chain from three perspectives: strategic, tactical, and operational (Desai et al., (2015). The strategic supply chain requires business leaders to focus on objectives and policies of the supply chain and outline organization structure to overcome functional barriers; the tactical perspective supply chain focuses on means to meet strategic objectives; and the operational perspective focuses on the efficient operation of the supply chain (Desai et al., 2015). The viewing of supply chain activities from three perspectives revolutionized the global supply chain trade. The globalization of supply chain led companies to source and manufacture products from low-wage countries, shortened the distribution channels, and increase global supply chain network (Baldwin & Lopez-Gonzalez, 2015).

Findings

The purpose of this qualitative single case study was to explore strategies that some Nigerian seaport business leaders used to mitigate supply chain disruptions. The central research question was, what strategies do Nigerian seaport supply chain leaders use to mitigate supply chain disruptions? The four participants were representative of the total population of supply chain business leaders and had experience addressing supply chain disruptions in seaport companies. Under supply chain management theory, extensive literature reviews, data from multiple sources, and using Yin's (2014) five stages of data analysis resulted in identification of five themes: (a) corruption (b) seaport congestion, (c) bureaucratic bottleneck, (d) worker noncompliance, and (e) machinery breakdown. These themes represent strategies that seaports business leaders use to minimize supply chain disruptions.

Theme 1: Congestion

All four participants stated that port congestion is the number one cause of supply chain disruption. All four participants indicated that congestion is due to too many ships at the terminals and the vessels waiting in a queue to berth. The participant noted that there was a situation where one of the vessels got stuck in shallow water during berth because the ship crews were under pressure to berth due to time constraints.

The participants noted that the congestion at the port is also due to gate congestion of land transportation. According to the participant, vehicles related congestion is due to poor road conditions leading to the ports. The participant stated the trucks are unable to reach the port to pick up the containers, and this leads to the storage area being overly crowded. The containers are large standardized boxes used in maritime trade to transfer goods. All participants noted that traffic congestion on the road leading to the seaports causes a delay for delivery trucks to reach the ports to pick up the containers. Because of the delay, the arriving ships are not able to berth in order to unload containers because storing facilities have reached their maximum capacity. Often the ships at the terminal wait for export goods to arrive so it can leave. If the vessels at the terminal do not depart, the arriving ships are not able to berth. The participant shared that sometimes over 20 ships were waiting to berth causing severe congestion.

The participant pointed out that each company can create its process to reduce the impact of a logistical problem at the seaports. For example, the participant mentioned that using the railway system which has been abandoned by the Nigerian Ports Authority (NPA) to evacuate the containers is one option the company has adopted.

The participant noted that shallow water makes large vessels not to berth at the terminal. The participant further acknowledged that the company has to use a ship-to-ship transfer which could take up to 10 days in most cases, but his company uses vessels with a shallow draft to transfer containers to the berth. Moreover, the participants coordinate with NPA officials to unload and store their containers at the designated time and the day of the week. All participants prioritize their unloading of their items based on processing time, customs clearance, and availability of the storage at the port facilities.

The participant noted that to ease congestion, his company instead of Lagos port complex, they use country's underutilized eastern seaports. The participant has added that Lagos is one of the biggest shipping hubs in Nigeria and congestion can be overwhelming. The participant noted that his company is working with their supply chain partners to berth the ship containing their cargo to other West African countries to avoid the congestion delay and the cost. The participant noted using other ports could provide 24-hour clearance compared to Nigerian ports that could take weeks.

Theme 2: Bureaucratic Bottlenecks

The NPA has introduced port concessions to streamline the port operation. A concession is a process where concession grantor allows private concessionaires to operate the facility or provide services at the ports. The participant noted that the government officials and concessionaires have stiff bureaucratic bottlenecks due to complex cargo processing procedures and corruptions that are affecting the supply chain of seaport companies. The participant noted that after paying all the associated fees, the document goes to Nigerian Customs Service (NCS) for review and approval.

Finally, the participant concluded that once the company gets a SONCAP certificate from NCS, it can clear the goods from Nigerian port. The participant stated that the cumbersome task is cargo examination booking with NCS officials, collecting signatures and stamps from custom officers, enforcement officers, custom gate control, and so forth. All participants noted that the cargo clearing process also requires a signature from port police, anti-drugs unit, anti-bomb unit, National Agency for Food and Drugs Administration and Control (NAFDAC), and Standards Organization of Nigeria (SON), and others. The participant commented that above bureaucratic paperwork hassles increase dwell time.

The participant stated that there are some measures that the company can take to reduce the dwell time. All participants noted that bureaucratic bottlenecks from government officials are due to corruption. All participants noted that they have strict policies against paying any bribes to any seaport stakeholders. The participants noted that on many occasions, their companies had reported bribery by port officials to the appropriate authority. The participants added that such reporting adversely affected their supply chain because the corrupt officials deliberately falsified the documents, damaged the cargo, and prolonged the cargo clearing time. The participant noted that because of the complexity of the process involved and various actors' involvement in the process, it is difficult to pinpoint the perpetrators. When asked how their companies deal with corruption, all participants said they leave it up to NPA officials and appropriate government officials. All participants stated that they hire experienced clearing agents and freight brokers to expedite the customs process. However, the participant stated

that his company faced some challenges from clearing agents and freight brokers. According to the participant, those agents were part of the bribery scheme. All participants noted their businesses continue to experience a bureaucratic bottleneck from NCS because of self-serving operatives intercepting progress for personal gain. The participant noted that some works in clearing process requires manual work. The deliberate delay in manual work affects the supply chain process. The participant added that some clearing documents are moved manually from one office to another, handwritten bills due to machine failure are subject to alteration, and documents are often misplaced. All participants noted that they had developed an excellent working relationship port concessionaries and other port operators as business partners.

All participants agreed that bureaucratic bottlenecks due to tedious paperwork requirement from concessionaires and port operators hinder clearing of cargo. To streamline the cargo clearing process, The participants stated their companies deploy industry-specific technology-based business intelligence tools. The participants stated that an integrated information system allows them to link with the network shared by the port authority, concessionaires, customs officers, and other operating agencies at the port. For example, the participant stated that an integrated information system uses bar codes, scanners, smart cards, and so forth to register entry/exit, loading, and unloading of cargo, and identify vehicles. The participant stated that the company uses geographical information system (GIS) application to locate containers, track containers arrival and departure, and trace containers. The participants stated that through GIS application and use of integrated information system, the companies could reduce the cost and time of handling and clearing of cargo.

The participants noted that using industry-specific business intelligence tools has helped their company leaders to avoid some of the bureaucratic bottlenecks because it minimized human interactions with corrupt port personnel. When asked to elaborate on challenges, the participant stated that various government regulators operate within the ports and are situated far apart from each other and sometimes it takes about 8 hours to shuttle between their locations which could delay the supply chain process. The participants noted that their companies invested in getting an office complex within the same terminals as regulators, and their staff communicate and process work through their server and utilize their mode of transportation. Both participants stated that renting offices, using a personal server, and transportation has made process seamless and has improved turnaround time making some aspect of their supply chain process efficient.

All participants noted that cargo clearance is their top priorities. The participant said that because of many human contacts, the process elongates. The participants stated that after getting clearance from the customs officers, there are other logistical challenges such further examining of cargo, storing, sorting, labeling, and so forth. The participants noted that their company utilized a newly established Kaduna dry port to avoid a logistical problem. The participant stated that after clearing the cargo, the company transport goods to the Kaduna dry port, whereas, the participants use Kaduna to clear cargos for the Northern region. All three participants noted that Kaduna is a new facility that can handle over 30, 000 containers. The participant stated that Kaduna dry port is less congested, has the latest technology, and has strict monitoring of so-called Warf Rats. However, all three participants stated that the road that connects the seaport town Lagos and Kaduna dry port is congested and are in bad conditions, so the company is using the railways to transfer cargos. The participants noted that they transport goods during

non-peak hours using company trucks and railroads. The participant stated that the company partners with The Association of Nigerian Licensed Customs Agents (ANLCA) to demand the federal government to use money generated from NCS to fix the road leading to the ports.

Theme 3: Corruption

Various types of corruptions occur at Nigerian seaports. The activities that take place at the seaport are cargo services, vessel services, securities, and so forth. Some personnel are responsible for maneuvering of ships, berthing and rebirthing of vessels, loading, and unloading of containers, moving containers to storing facilities, and others are responsible for equipment operation, cargo tracking, and transfer to land transport, customs clearance, security, and more. According to research participants, there are corruptions taking place at all activities at the seaports. According to the participant, security personnel so called wharf-rat is responsible for cargo theft and breaking. When asked to expand upon the type of illegal activities at the port, The participant mentioned indiscriminate litigation, illegal detention of vessels at the berths, delaying incoming vessels, deliberate paperwork error, prolonging the vessel turnaround time, and so forth. The participant stated that in one instance the perpetrators of corruptions deliberately diverse the company cargo to neighboring ports because the company refused to pay bribes. According to the participant, ship diversion severely affected the company's supply chain because the company could not deliver the goods to its clients. Participants stated that some seaport officers collect bribes from clients to approve their cargo clearances paper. According to the participant clearance of bill of lading should not take 48 hours, but the customs officers hold back the paperwork of companies that do not provide the bribe money.

All participants agreed that bribery by seaport officials are normal practices at seaports. The participant stated that there are backlogs of paperwork waiting for clearance and decision to expedite the paperwork depends on the amount of the bribes. The participant stated that to minimize corruptions, the company actively brings up the issues with NPA and seaport officers' supervisors. All participants noted that the government officials are not doing enough to minimize the corrupt practices at Nigerian seaports. The participant stated that their company staff was making inside deals with the corrupt officials for personal gain. The company terminated such staff and had implemented a zero-tolerance policy to control internal corruption. The participant posited that the company implemented strategies that require a minimal interface with the clearing agents through automated software to minimize the manual process. The participant stated that their company pays a high salary to employees to compare to most seaport companies to avoid temptation for corruption. All participants noted that it is impossible to address all the corruptions that take place at Nigerian seaports because of the actors involved and a propensity of crimes. However, all participants mentioned two types of corruptions that are most detrimental to their businesses which are collusion and coercion. The participant further added that to minimize collusion type of corruptions, the company partners with NPA officials, private agents, and public officials to create an audit trail to tracking corruption in the pipeline. The participants stated that their companies pay the private agents who are professionals to oversee tariff evasion. The participant said that the company works with ethical clearing agents whom the company recommends to its customers. The participant stated that coercive corruption opportunities exist when there is a frequent interaction for a long period between the companies' clearing agents and seaport officials. The participant stated

that company hires contractors for short time horizon to work as clearing agents and the old contractors are replaced with new contractors periodically. The participant added that their company requires contractors to sign the anti-corruption clause. The participant stated that frequent rotation of staff would reduce the temptation of asking for bribes by seaport officers not knowing whether the clearing agents are part are company employees or government officials in disguise doing random audit.

Theme 4: Equipment Failure

The seaport operatives are interdependent, and equipment breakdown from one side could lead to the disruption of seaport operation. Equipment failure as one of the main reasons for supply chain disruptions. Equipment failures cause backlogs, queues, traffic jams, and hinder many port operations. The participant added that there was an explosion of one of the company's diesel storage tanks and that led the temporary shutdown of the terminal for 24 hours resulting in backlogs of the company cargo due to disruption in the supply chain process. The participant stated that to avoid the similar problem in the future, the company partnered with NPA to convert its overhead storage to underground storage. The participant noted the efficiency of cargo handling equipment at the terminals result in vessels taking a long time to unload the cargo and thereby causing congestion at the port. All participants agreed that concessionaires and cargo handling companies are responsible for the functioning of their equipment. The participant also stated NPA is not doing enough to hold concessionaires and other port operatives accountable for machine failure. However, all participants noted that additional cost associated with untimely loading and unloading of cargo containers is passed to the respective companies, thereby holding them accountable. All participants stated that old machinery, cranes, and the forklifts that are breaking down is a significant problem. The participant stated that cranes are meant to offload 20,000 containers in 24 hours, and when there is a breakdown, the company could not meet the sales level agreement (SLA). After the incident, the participant's company partnered with terminal operatives and invested in state of the art and modern equipment in their terminal. According to the participant, "it was an overhead cost to us, but the cost-benefit analysis showed that we are better off investing in new equipment than continually paying fines to our clients."

The participant further noted that it was a strategic decision to build rapport with the client and minimize future fines. The participant's company used a different route to address the crane failure. The participant's company uses the terminal that handles automated lifting vehicles (ALV) instead of the one that uses automated guided vehicles (AGV). The participant stated contrary to AVG, ALV does not need to interact with a crane which is susceptible to failure in most instances. The participant stated that the NPA coordinate piloting, towing, berthing, and shifting of vehicles and charge a high cost for these services. The participant's company partnered with NPA to reduce the fees if there is a delay in rendering services to the company. The participant added that the problem is not just about the fees, but the breakdown of tugboats and other equipment that led to other supply chain disruptions. The document revealed that in one instance it cost the participant company \$100,000 because the company was unable to meet cargo clearing deadline. The participant's company negotiated with the regulators to purchase their equipment, rubber tire gantry crane, forklift, and tugboats to work strictly on their vessels and at their terminal. The participant stated that the epileptic nature of the power supply in the country had affected the operation of the seaport company in Nigeria. According to the participant power outage has caused supply chain disruptions that affected the

turnaround time of cargo clearance. The participant showed the document that lists \$50,000 in damages because the work couldn't be done on time because of power interruption. The participant's companies partnered with NPA to invest in the power supply of its terminals. The company invested in a gas turbine power plant that provides the terminal with power instead of depending mainly on the power supply from the government.

Theme 5: Labor Disputes

The participants stated that seaport companies face strikes from port employees and truckers. P1 stated that each actor in seaport operation is dependent on each other for their business, and often disputes arise because either the work is not done on time or disagreement on payment terms. The participant noted that personnel disputes could affect cargo handling or even shutting down the port. The participant posited that sometimes the protest comes from union workers when there is a threat to workers' employment, pay raise, and so forth. All participants stated that recently there was a nationwide strike by port workers at the Ports and Harbour Bill that could lead to massive job loss of port workers. The participants stated that the Maritime Workers Union of Nigeria (NWUN) and the Transport and Corporations Maritime Branch (SSACTAC) organized the protest. The participant showed me the flyers that NWUN and SSACTAC used during the strikes. The participant state that during the strike, the workers barricaded Lagos and Tin-can ports bringing full stoppage of traffic flow in and out of the ports. P4 noted that if the bills to Amend Nigerian Port Authority Act, 1955 passes, it will have negative implications to supply chain operation of maritime companies. The participant read some of the highlights in Nigerian Port Authority Act to me during our interview. The participant stated that on one occasion, there was a strike because MWUN raised the alarm about unregistered people working at the port.

All participants noted that the strikes are the means for ports workers to resolve disputes. All participants stated that the truckers' strike results in severe consequences. The participant noted that the truckers strike to improve their working conditions and pay. The participant stated that truckers strike would create chaos and confusion in the terminal because containers start to pile up in the yard building congestions and companies have to look for alternative means to transport the containers. All participants stated their company has no means to avoid or stop the nationwide strike organized by NWUN. All participants hope that the union and the government official reach an agreement so that that duration of the strike is short. All participants stated that they minimize some strikes by port workers through social dialogue. The participant and the participant noted that ongoing social dialogues between management and workers help build sound labor-management relations. All four participants stated that they view all port stakeholders, including concessionaires, clearing agents, and freight brokers, and customs officers as strategic partners. All participants indicated that they work hard to make workers feel that they work for their companies, not the union. All participants stated they treat the port workers and truckers as employees, not contractors. All participants stated that their company has an open-door policy to hear works concerns. All participants stated that they tone down the oligarchy and provide power to bargain collectively for a pay raise and working conditions. All participants stated that their companies have a competitive pay scale to their employees and contractors. The participants stated that their companies use company trucks and are not heavily dependent on trucking companies. The participant state that the company engages with truck drivers' association and the company created a union where the head of human resource partners with the union and a truck driver association to

ensure the welfare of truck drivers. All participants stated that their company addresses workers issues as soon as they raise them by having a dialogue with the union rep. The participants noted that their firm has negotiation managers working with HR department to deal with workers issues and strikes. Both participants stated that their negotiation managers are expert in Nigerian labor laws, trade unions, legal knowledge, and has solid negotiating and people skill.

❖ Recommendations

Several themes emerged in this study findings to mitigate supply chain disruptions. Below are study recommendation.

1. Addressing all congestion at the seaport considering the complexity of seaport logistic is difficult; however, business leaders can deploy some internal policies and activities as highlighted in this study to minimize the intensity of supply chain disruptions.
2. Leaders to need to identify both performances based and system-based bottlenecks in the business to improve efficiency and productivity.
3. Civil society, financial institutions, NPA, and Nigerian government engage in activities to stimulate awareness, mitigate, and prevent both the corruptions and bureaucratic bottlenecks that exist at Nigerian seaports.
4. Seaport companies' business leaders is to conduct cost-benefit analysis while replacing port equipment and a decision should not focus on the immediate cost associated with such replacement, but the long-term implications of creating value and benefits to the companies.
5. The labor dispute is due to managers' inability to establish a social dialogue and collaborate relationship with stakeholders. leaders could collectively collaborate with NWUN and SSACTAC to minimize the frequency of strikes.

❖ Conclusion

The study findings provided few key strategies that some successful seaport companies, business leader use to tackle congestions, corruptions, bureaucratic bottlenecks, equipment failures, and employee disputes at Nigerian seaports. In summary, business leaders need to mitigate supply chain disruptions to increase profitability. Business profitability may result in business growth leading to social implication regarding employment opportunities to people in port cities.

Declarations

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The study has not received any funds from any organization.

Competing Interests Statement

The author has declared no competing interests.

Consent for Publication

The author declares that he/she consented to the publication of this study.

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