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Restructuring Old-Path Dependence in Inland Container Depots in the Nigerian Maritime Industry

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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

The neglect of Inland Container Depots (ICDs) in the Nigerian maritime industry has been a protracted problem even though the facilities are potential sources of revenue in boosting the nation's economy. The specific problem was the full potential of coordinated governance initiatives, such as the Maritime Anti-Corruption Network (MACN) aimed at addressing the challenge, has not been realized because of the failure of port actors to break away from old-path dependence in managing the port facilities. The purpose of this qualitative classical Delphi study was to determine how a panel of maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The research questions, grounded by path dependence theory, focused on the desirability, feasibility, and importance of forward-looking governance strategies for transforming the port facilities management. Through 4 iterative survey rounds, 25 experts shared their views and suggestions based upon a predetermined list of categories of maritime corporate governance practices. Frequencies and median scores were calculated using Likert-type scales of desirability and feasibility on solution items later ranked for importance and rated for confidence to determine levels of consensus. The findings revealed a consensus on 5 desirable, feasible, and important items across 4 categories of solutions. This study contributes to positive social change by providing maritime leaders with a consensus-based list of corporate governance practice solutions for curbing path-dependent behaviors and making the emergence of a new path possible for accelerating industry growth.

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Dedication

This dissertation is dedicated to my LORD Jesus Christ, who has empowered me in every way for the huge success of this project! To my wife, Abimbola, and my children, Samuel, Eunice, and Daniel, I thank you for your unflinching support and inspiring me to forge ahead toward greatness. Also, to my spiritual father, Revd. Victor O. Adeyefa, you set the vision, motivation, and standards for assiduity towards life goals accomplishment for me.

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Chapter 1: Introduction to the Study

The Nigerian maritime industry, through its numerous government agencies, has a great potential to revamp the nation's economy by the establishment and expansion of the Inland Container Depots (ICDs), also known as dry ports. ICDs form an integral part of the maritime sector through which the government extends port services including containerized trades from the nation's coastline close to shippers in the hinterland (Adonye, Deniel, & Dogood, 2019; Akuki, 2016; Jeevan, Chen, & Cahoon, 2018; Michael, 2019; Monios, Bergqvist, & Woxenius, 2018; Nze, Ejem, & Nze, 2020; Oblak, Hess, & Jugovic, 2016). Across the six primary ICD locations in the country, there is evidence of old-path dependence among the numerous stakeholders in the maritime sector (Abdoulkarim, Fatouma, & Munyao, 2019; Adonye et al., 2019; Jeevan et al., 2018; Michael, 2019; News Agency of Nigeria [NAN], 2016; Ships & Ports, 2017; Skellern, Markey, & Thornthwaite, 2017). Old-path dependence is consistent with the industry stakeholders who rely on past knowledge to conduct businesses in the containerization of cargo shipments (Skellern et al., 2017; Wilmsmeier & Monios, 2016).

In the process of extending ports services through containerized cargo to the hinterland, port stakeholders resist management changes and engage in corrupt corporate practices making the administration of the inland infrastructure ineffective (Abdoulkarim et al., 2019; Adonye et al., 2019; Jeevan et al., 2018; Michael, 2019; NAN, 2016; Ships & Ports, 2017; Skellern et al., 2017). If leakages of earnings enabled by old-path dependence are blocked and appropriately harnessed, ICDs, as vital cargo facilities, can boost the revenue generated into the nation's federation accounts (Abdoulkarim et al.,

2019; Abdul, Abdul, & Rasdi, 2017; Adonye et al., 2019; Anumihe, 2016a; Ebosele, 2015; Michael, 2019; Nze et al., 2020). Restructuring old-path dependence in the management of ICDs has become necessary to create a robust environment through a collective action that will accelerate industry growth and boost the nation's economy (BSR, 2016; Hansen, 2018; NAN, 2016; Van Schoor & Luetge, 2017).

Key leaders and regulators, such as government agencies, maritime experts, and private corporations, form alliances on coordinated governance initiatives (CGIs) to transform the maritime sector. Restructuring old-path dependence among stakeholders in the management of ICDs was crucial to distinct administrative elements that stunt economic growth (BSR, 2016; Hansen, 2018; Ojadi & Walters, 2015). Weak enforcement practices, ill-defined standards operating procedures, and a lack of coordination among critical maritime stakeholders characterized the old-path dependence of leaders of maritime corporate governance initiatives (BSR, 2016; NAN, 2016). CGIs such as MACN involve the participation of stakeholders to drive collective action in developing strategies to tackle the problem of old-path dependence in the industry (BSR, 2016; Hansen, 2018; NAN, 2016; Van Schoor & Luetge, 2017). The program of MACN is critical to dealing with these elements of old-path dependence among stakeholders of ICDs, which inhibit increased revenue generation into the federation account.

This study could be a helpful resource for port experts, practitioners, and scholars in harnessing the introduction of CGIs as maritime corporate governance initiatives through the MACN, in dealing with pervasive old-path dependence in the industry. Since the introduction of CGIs has not yielded the desired transformational

results for economic growth in the port sector, the need existed for key industry actors to collaborate as to why it was important to change their old behavioral paths and make the emergence of a new path possible (BSR, 2016; Lavissiere, 2018; Lloyd et al., 2019; NAN, 2016; Van Schoor & Luetge, 2017). Through collective action of the maritime players, the emergence of a new path embracing the MACN initiatives might be useful for the government to advance the administration and operations of ICD projects and make them sustainable enterprises (BSR, 2016; Hansen, 2018; Van Schoor & Luetge, 2017). The findings of the study might contribute towards creating positive social change in the direction of providing further the trajectory of breaking path-dependent behaviors consistent with widespread corruption, which was responsible for various forms of revenue leakages in the sector. If maritime actors could shun or curb old path-dependent behaviors, the MACN initiatives might attract a host of economic benefits to the sector and society. These benefits include job creation, export promotion, diversification of the economy, and increased foreign exchange earnings (Benson & David, 2018; Elisha, 2019; Omoke, Adigun, Awam, Ahuama, & Gidado, 2015a; Onwuegbuchunam, Igboanusi, & Ogwude, 2017).

This chapter includes background information related to restructuring old-path dependence in the management of ICDs, the problem statement, the purpose, and nature of the study, the research question, as well as the conceptual framework for the study. The definitions of key concepts underpinning the study are presented along with the assumptions, limitations, and delimitations of the study. This chapter also includes the discussion of the significance of the research and the social change implications.

Background of the Study

Leaders of the Nigerian maritime industry act as a significant link in the global supply chain in the administration and operations of ICDs in the country. Government regulators and stakeholders of the sector fail to take advantage and maximize the potential economic opportunities provided by the development of the facilities across the nation (Afolabi, 2015; Ships & Ports, 2016; Ships & Ports, 2017). In the rapidly changing market environment, leaders of maritime agencies may discredit and shun old leadership styles and focus on the strengths, weaknesses, motivations, and concerns of other key stakeholders in the industry for collective goal achievement (Notteboom, De Langen, & Jacobs, 2013).

The prevalence of old-path dependence among the maritime regulators and industry stakeholders makes the administration and operations of the ICDs challenging to boost revenue generation by the maritime sector (Akuki, 2016; Anumihe, 2016a; Hansen, 2018; Ojadi & Walters, 2015). Old-path dependence among dominant industry actors is consistent with the assumption that old ideas will always work, so they should not be challenged (Skellern et al., 2017; Wilmsmeier & Monios, 2016). The ownership and management of ICDs require a new paradigm shift for unconventional and transformational leadership for productive and sustainable industry growth (Bhattacharya, 2017). The commitment and ability of stakeholders to adapt and transform from the old path to a new one, through CGIs, is critical for economic performance and industry growth (Skellern et al., 2017). These initiatives, such as MACN, tend to curb

old-path dependent behaviors such as corrupt practices by maritime stakeholders and motivate a change towards a sustainable trajectory for the industry.

CGIs are valuable in developing corporate strategies against old-path dependence for economic and industry growth. Although CGIs are nascent in the Nigerian maritime sector, the actors of this program understand little as to how to harness the collective commitment of stakeholders for the success of MACN (Van Schoor & Luetge, 2017). The government, in collaboration with critical maritime stakeholders, including maritime agencies, needs to deploy CGIs through the MACN to tackle the regulatory elements of old-path dependence that induce corruption among numerous stakeholders in the industry. The MACN serves as an international business network comprising of ship-owning corporations, cargo owners and service providers who form alliances with other key stakeholders, including governments, authorities, and international organizations to tackle corruption in the Nigerian maritime sector (BSR, 2016; Hansen, 2018; NAN, 2016; Van Schoor & Luetge, 2017). Balancing multiple interests, demands, and claims of the various stakeholder groups in the industry are crucial and significant to their participation in achieving the collective goals of MACN.

Through an explorative qualitative approach, Fraser and Notteboom (2016) accentuated dysfunctional corporate governance practices and rent-seeking behaviors associated with old-path dependence, which create perverse political and economic incentives that make actors resist reforms. The corruption challenge stemming from old-path dependence among maritime actors imposes a high cost on maritime agencies and creates a barrier to trade and development with other port countries (Michael, 2019; Ojadi

& Walters, 2015). According to UNCTAD (2015), corruption increases operational costs and also, reduces access to global markets for small and medium-sized exporters who transact about 90% of globally traded goods by sea, which pass through seaports and the maritime value chain (International Chamber of Shipping [ICS], 2016; UNCTAD, 2015). A large number of maritime corporations in Nigeria also engage in unethical and corrupt corporate practices ranging from facilitation payments and bribes to extortion in the movement of cargos and ships in and out of the country (Alkali & Imam, 2016; Eleagu & Akonye, 2018; Fraser & Notteboom, 2016; Hansen, 2018; Ojadi & Walters, 2015). Leaders of these firms as well encourage collusive corruption that facilitates tax evasion and diversion of public funds leading to low competitiveness and economic inclusivity (Michael, 2019; Notteboom et al., 2013). Anticorruption enforcement becomes necessary to mitigate the risks of unethical corporate governance practices to achieve the vision of MACN for sustaining the operations and management of ICDs in the industry.

Critical areas of pervasive old-path dependence, which make it difficult for maritime agencies to achieve economic growth, are weak enforcement practices, ill-defined standard operating procedures, and a lack of coordination among crucial maritime stakeholders (BSR, 2016; NAN, 2016; Van Schoor & Luetge, 2017). These three elements of old-path dependence induce corruption among stakeholders, which contribute to the neglect of the ICDs that serve as essential purpose facilities, leading to the damage of major roads and the collapse of the rail system in the country (Alekhuogie, 2016; Odeleye, 2015). Supported by the report prepared by the Nigerian Technical Unit on Government and Anti-Corruption Reforms (TUGAR) in 2014, MACN has the

mandate to enforce through a collective action approach, a maritime sector free of old-path dependence that induces corruption among maritime stakeholders (BSR, 2016). The need to address the causes of corruption in the maritime industry is consistent with the strategic and collective goals of MACN in finding sustainable solutions to overcome the three major elements of pervasive old-path dependence in the management of the ICDs.

Weak Enforcement of Corporate Governance

Weak enforcement of corporate governance practices is one of the primary drivers associated with old-path dependence among maritime stakeholders in the operations and management of ICDs. Weak enforcement is a widespread problem of development when some maritime laws become outdated, with sanctions that are no longer a deterrent to law offenders (BSR, 2016). The enforcement of existing provisions and sanctions remains ineffective when the enforcement environment for stakeholders is weak (BSR, 2016). In an explorative qualitative study to examine the challenges of maritime resource scarcity and security, Pomeroy, Parks, Mrakovcich, and LaMonica (2016) argued that weak enforcement of laws and policies associated with inadequate information to stakeholders is counterproductive to maritime corporate governance. The government and other industry actors need to create the awareness through public understanding and support, and compliance with maritime laws to ease the enforcement challenge for reforming the operations and management of ICDs (Villa, 2017). Vigorous enforcement of corporate governance practices in the maritime sector by the government may improve the nation's competitive advantage in the world trade market.

Ill-Defined Standards Operating Procedures

Specific to the maritime sector, ill-defined standards operating procedures refer to the poor systemizing of all processes and documentation necessary to complete cargo and shipping activities in and out of the country. Maritime agencies encourage poor standardization of the rules and operational procedures working in the maritime transport sector for the process of cargo clearance (Laxe, Sanchez, & Garcia-Alonso, 2016). Essential cargo clearance operations such as freight billing systems, documentation, and delivery processes, remain potential issues because they lack proper streamlining and computerization (Sanchez & Pinto, 2015). The design and implementation of a transparent compliance system are necessary for enforcing standards operating procedures for effective operation and management of ICDs (BSR, 2016; Fakoya & Lawal, 2020). Through constant reviewing and updating of standards operating procedures, this approach may assist the government in strengthening internal controls to tackle corrupt practices among port stakeholders.

Lack of Adequate Coordination among Maritime Stakeholders

Local stakeholder organizations, including government agencies, create participatory working groups by conducting regular meetings and setting the agenda for meeting the administrative goals of ICDs across the country. Despite the action plans to initiate a successful governance transformation process within the system, there is evidence of inadequate coordination among the critical project stakeholders (Aburto, Gaymer, & Cundill, 2017; BSR, 2016). Although, there is an existing participatory process indicating compliance with primary governance strategies, the decisions taken by

leaders do not represent the collective opinions of other stakeholders and experts for implementing the ICD project (Aburto et al., 2017; Van Leeuwen et al., 2014).The inadequacy of stakeholder coordination in the participatory process also highlights governance mismatches that are essential in pursuing more effective implementation efforts to make the ICDs a sustainable enterprise (Aburto et al., 2017; BSR, 2016; Van Leeuwen et al., 2014). Effective coordination is necessary to support the strategic planning and management of the ICDs to optimize a bottom-up management approach among numerous stakeholders who possess different interests, values, and levels of power in the system.

This study is vital to industry practitioners and scholars because of its knowledge contribution to addressing the issue of the low collective commitment of Nigerian maritime stakeholders for the success of CGIs such as MACN for economic and industry growth. Opinions of industry experts might help to develop an understanding of how stakeholders of CGIs may successfully transform the pervasive old-path dependence in the management of ICDs through corporate governance practices that are desirable, feasible, and important for sustainable enterprise and promote positive social change.

Problem Statement

The Nigerian government leaders and maritime agencies collaborate on CGIs such as MACN, which are essential to tackle the problem of pervasive old-path dependence among the maritime stakeholders involved with the management of ICDs across the country (BSR, 2016). Old-path dependence, where stakeholders rely on past knowledge to conduct business and resist change, makes the management of ICDs

ineffective (NAN, 2016; Ships & Ports, 2017; Skellern et al., 2017). Maritime stakeholders need restructuring their operating framework, management style, and investment portfolio to boost the nation's economy and accelerate industry growth and development (Afolabi, 2015; Hansen, 2018; Ships & Ports, 2016; Ships & Ports, 2017).

The social problem is the introduction of CGIs has not yielded the desired results for change in the Nigerian maritime industry (BSR, 2016; Hansen, 2018). If industry regulators fail to accomplish transformative change, sustainable revenue generation among Nigerian ICDs is at risk (Akuki, 2016; Anumihe, 2016b; Michael, 2019). The specific management problem is the failure of Nigerian maritime practitioners to break away from old-path dependence for the administration and operation of ICDs, which impedes industry growth and development (BSR, 2016; Hansen, 2018; Van Schoor & Luetge, 2017). A lack of consensus exists among maritime practitioners working across the port industry in Nigeria with regards to the management paradigm that will alter the old-path standpoints towards the strategic values of desirable, feasible, and important corporate governance practices necessary for transforming the ICD initiatives (Afolabi, 2015; Akinyemi, 2016). This problem contributes to the neglect of the essential purpose facilities, which leads to the damage of major roads and the collapse of the rail system in the country (Alekhuogie, 2016; Julius & Odiegwu, 2019; Michael, 2019; Odeleye, 2015). Further research was desirable, focused on how leaders of corporate governance initiatives could be successful in transforming old-path dependence on the management of ICDs in the maritime sector (BSR, 2016; Van Schoor & Luetge, 2017).

Purpose of the Study

The purpose of this qualitative classical Delphi study was to determine how a panel of 25 Nigerian maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The Delphi design was appropriate for identifying multiple viewpoints among an expert panel and the possibility of consensus among the panel as to a management paradigm for changing old-path standpoints towards desirable, feasible, and important corporate governance practices necessary for transforming the ICD initiatives (Da Cruz, Ferreira, & Azevedo, 2013; Huge, Van Puyvelde, Munga, Dahdouh-Guebas, & Koedam, 2018; Ilnytskyy, Zinchenko, Savych, & Yanchetskyy, 2018).

Research Questions

One primary research question and three subquestions guided this qualitative Delphi study. These questions were:

Primary Research Question (RQ1): How does a panel of Nigerian maritime industry experts view the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Subquestion (SQ1): How does a panel of Nigerian maritime industry experts view the desirability of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Subquestion (SQ2): How does a panel of Nigerian maritime industry experts view the feasibility of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Subquestion (SQ3): How does a panel of Nigerian maritime industry experts view the importance of desirable and feasible corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Conceptual Framework

The study of maritime governance evolved in the context of government-sponsored interventions that were necessary to analyze shared governance issues (Brooks & Cullinane, 2007; De Langen, 2006). Path dependence of shared governance is a foundational concept applied in past studies relative to explaining the evolution of maritime governance and change management (De Langen, 2006; Notteboom et al., 2013). According to Dooms, Verbeke, and Haezendonck (2013), barriers as to the resilience of governance frameworks and institutions for change are based on path dependence arguments.

The conceptual framework is an interpretative lens for understanding the concepts to be studied (Miles & Huberman, 1994). The conceptual framework for the current study was consistent with concepts related to path dependence theory and organizational change theory. The origins of path dependence as a theory for explaining institutional change have connections to the seminal works of Arthur (1989) and David (1985). A

proposition of this theory is leader decisions made in the present are influenced and limited by decisions made in the past, even when past conditions are not relevant to the present (Arthur, 1989; David, 1985). Historical sequences of political and economic events influence stakeholder decisions and management choices (Arthur, 1989; David, 1985).

Path dependence theory is useful for understanding institutional values, standards, and rules that shape the path of organizations, often creating resistance to changes that would depart from historical paths (David, 1985; Trouve, Couturier, Etheridge, Saint-Jean, & Somme, 2010). These historical paths are limited by shifts in the roles and behavior of various stakeholders, making coordination of planned initiatives challenging to achieve (Arthur, 1989; David, 1985). More extreme change efforts, such as those considered revolutionary, require leaders to overcome resistance to coordinated governance initiatives, especially in a diverse stakeholder environment (Reveley, 2008). Institutions are slow to change, and industry stakeholders believe deviation from experience will compromise their political and economic interests (Dooms et al., 2013; Trouve et al., 2010).

Path dependence concepts were incorporated into the conceptual framework of maritime governance for the qualitative design of this study. Using this conceptual framework, the purpose of this study was to determine how a panel of maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. Based on the propositions of the evolution of maritime

governance and change management initiatives, the path dependence theory was useful in guiding the data collection and analysis process of this classical Delphi study. These propositions, consistent with the path dependence theory were used for creating the questionnaires for the iterative rounds of the survey for the study.

The path dependence theory is synonymous with the propositions of the organizational change theory. The major tenets of the organizational change theory include (a) the diagnosis of the problem, (b) assessing the motivation and capacity for change, (c) examining the available resources of the change agents, and (d) stating clearly the roles of the change agents to gain the understanding and the expectations of other parties involved (Kanter, Stein, & Jick, 1992; Kral & Kralova, 2016). Other tenets relate to maintaining group communication for management change, receiving relevant feedback towards the change process, and deviating from the old path to create paradigm shifts for new ones (Kral & Kralova, 2016; Park & Kim, 2015; Sorensen, 2015). Chapter 2 contains a more thorough explanation of the conceptual framework, along with an additional description of the connections among its key elements.

Nature of the Study

A qualitative classical Delphi research design was employed for this study. This design was used to gain accurate knowledge from experts as to elements of forward-looking corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise (Linstone & Turoff, 2002; Skulmoski, Hartman, & Krahn, 2007; Von der Gracht, 2008). A qualitative method is appropriate for understanding the rich, thick nature of a contemporary real-life

phenomenon, such as maritime governance in Nigeria (Avella, 2016). The Delphi research design was deemed appropriate for this study because the data collection and analysis were conducted to garner expert opinions on possible future events (Linstone & Turoff, 2002). In this context, the classical Delphi design was preferred to other types of Delphi because the topic of forward-looking corporate practices for port governance was underserved in the literature, negating the possibility of drawing upon a list of saturated solutions from the literature and employing a modified Delphi approach (Skulmoski et al., 2007). The design also involves dealing with the scenario where there is incomplete knowledge and no accurate answers to address forward-looking corporate governance practices among industry experts (Linstone & Turoff, 2002; Skulmoski et al., 2007). This approach was useful in identifying multiple viewpoints and consensus methodically among experts regarding solution elements of the research phenomenon that were desirable, feasible, and important for successfully transforming old-path dependence of the management of ICD facilities across the country (Avella, 2016; Brady, 2015).

The panel for the study comprised experts selected through a nonprobability purposive sampling approach, augmented by snowball sampling. Contacts in the industry were drawn upon to identify the initial panelists. The eligibility requirements for determining experts for the study consisted of membership in one of two groups: scholars or practitioners. Scholarly experts were composed of published researchers with expertise in Nigerian governance practices and the maritime industry. Practitioner experts comprised consultants, port managers, maritime legal professionals, and port stakeholders

(shippers, trade chamber, among others) with 5 or more years of progressive management experience.

For the Delphi research design, there is a great deal of variation concerning the number of panel members (Linstone & Turoff, 2002; Von der Gracht, 2008). The sample size may range from as few as 15 to as many as 100. The goal of this study was to recruit 25 experts constituting the panel, ideally with an equal number of experts from scholar and practitioner communities. Twenty-five was believed to be a good number for the panel size because this sample was not too small and could withstand a panel dropout rate of 25% without diminishing the credibility of the findings (Hsu & Sandford, 2007).

Several iterative rounds of data collection and analysis were conducted through SurveyMonkey. The plan was to solicit individual judgment and evaluate the level of consensus among the expert panel. The data collection process began with Round 1, involving an open-ended questionnaire to identify a broad range of responses for transformative elements of forward-looking corporate governance practices (Skulmoski et al., 2007). The analysis of the data over successive rounds entailed the use of descriptive statistics for measuring the existence of consensus and the convergence of opinions in support of answering the research question (Von der Gracht, 2008).

Definitions

A number of the key terms and concepts used are defined to add clarity to this study.

Coordinated governance initiatives (CGIs): CGIs refer to strategic network plans involving either private or public-private stakeholders aimed at proffering joint solutions

to an identified maritime governance problem such as maritime corporate corrupt practices (Van Leeuwen, 2015; Van Schoor & Luetge, 2017). MACN is a form of CGIs, which serves as a critical approach to tackling corporate corrupt practices that have remained a major barrier to the desired transformation results for economic growth in the maritime sector (BSR, 2016; Hansen, 2018; Okechukwu, 2015; Van Schoor & Luetge, 2017).

Corporate corrupt practices: Corporate corrupt practices refer to collusive forms of financial misconducts among different maritime actors to evade tariffs and taxes during shipping or cargo routine processes, including coercive bribery and facilitation payments at the detriment of port performance and efficiency (BSR, 2016; Eleagu & Akonye, 2018; Eski & Buijt, 2016; Hansen, 2018). The ever-increasing problem of corporate corrupt practices in the maritime sector has necessitated the need for CGIs by industry leaders to curb their adverse effects on the economy, environment, and society (Van Leeuwen, 2015; Van Schoor & Luetge, 2017). A major initiative such as the MACN serves as a strategic collective commitment of potential stakeholders to curb old-path dependence that is consistent with the wide-spread corruption in the port sector.

Corporate governance practices: In the volatile and competitive shipping freight markets, corporate governance practices refer to a set of legal, institutional, and cultural procedures that influence the way by which the maritime business enterprise is administered or controlled (Andreou, Louca, & Panayides, 2014; Ofuani, Sulaimon, & Adebisi, 2018; Onwuegbuchunam, 2020; Ugani, 2018; Veronique & Huang, 2019). In the collective commitment of maritime stakeholders against corruption, corporate

governance practices connect with financial management decisions about earnings management, investments, and firm performance for industry growth (Ofuani et al., 2018; Parola, Satta, & Panayides, 2015; Ugani, 2018). These management decisions require elements of good governance systems such as transparency, fairness, autonomy, accountability, discipline, and social responsibility (De Langen & Van der Lugt, 2017; Fakoya & Lawal, 2020; Okoroafor & Bernard, 2019).

Inland container depots (ICDs): ICDs, also known as Dry Ports, serve as the primary multimodal inland transport facilities for the logistics of containerized trading activities in the remote regions of Nigeria (Abdoulkarim et al., 2019; Adonye et al., 2019; Funke & Kopfer, 2016; Michael, 2019). The purpose of the ICDs serves to bring shipping services to the doorstep of shippers across the country, promoting the economic activities and building a robust environment that will accelerate the growth of the maritime industry (Abdoulkarim et al., 2019; Adonye et al., 2019; Fazi & Roodbergen, 2018; Nze et al., 2020).

Maritime anti-corruption network (MACN): MACN represents the strategic and collective initiative and commitment of primary stakeholders of the Nigerian maritime industry to curb corruption (BSR, 2016; Van Schoor & Luetge, 2017). MACN is a fundamental approach in which consensus-based opinions of maritime industry experts may help to develop an understanding of how leaders of CGIs for ICDs may successfully transform the old-path dependence of management into the sustainable enterprise and promote positive social change (BSR, 2016; Van Schoor & Luetge, 2017).

Old-path dependence: Consistent with the maritime industry, old-path dependence is a fundamental point of historical development intrinsic with how a project and its stakeholders can be locked into a definite path of actions (Skellern et al., 2017). Endogenous events characterize this path of activities, and evolving stakeholder dynamics contribute to the breaking of the shared path to create a new way steadily for achieving the project goals (Aaltonen, Ahola, & Artto, 2017; Skellern et al., 2017). The definition of old-path dependence for this study focused on the restriction imposed by the past path on future change where behavioral patterns of practitioners (economic and political) can disrupt a shared institutional path (Liang & Ma, 2017). This shared path leads to the switch over to a new one (Aaltonen et al., 2017; Liang & Ma, 2017).

Port governance: Consistent with the maritime industry, port governance refers to a situation where governments or voluntary groups adopt and enforce a set of laws or policies governing business conduct and property rights (Amodu, 2018; Dike & Giniwa, 2019; Monios, 2017). These laws or procedures are necessary to address governance structures, port functions, and actions needed to improve the coordination of the port logistics chain (Benson & David, 2018; Njar & Okon, 2019; Notteboom & Yang, 2017).

Assumptions

An assumption could be explained as that which the readers of the study consider true or most plausible in connection to the research design, population, statistical tests, or other boundaries placed upon the scope of the study (Marshall & Rossman, 2016). This study included some vital assumptions. The first assumption was that self-selected participants, who were maritime experts, were honest in assessing their credentials as

eligible experts to provide their industry and professional experience in the study. These participants were assumed to be readily disposed to share their experiences and perspectives on old-path dependent behaviors and contributed to a better understanding of the goals and success of MACN as a strategy against old-path dependence in the industry. Second, based on the criteria of data collection and analysis in Delphi design, the participants were assumed to provide appropriate and accurate information to answer the questions specified in the survey rounds in line with the purpose of the study and the research questions. Third, the sample size was sufficient to collect accurate data, and participants' responses were adequate to conclude the study. Fourth, the questions used in the Round 1 survey were created, based on the most relevant and forward-looking corporate governance practices distilled from literature, to address old-path dependent behaviors in the maritime sector. Another important assumption was that the literature reviewed in Chapter 2 had reached saturation.

Scope and Delimitations

Scope definition refers to delimited boundaries, making the study more manageable and realistic, while delimitations apply to the controllable boundaries and scope limits that were set to keep the study manageable (Yin, 2014). The scope of the study was consistent with the boundaries delineated for the classical Delphi study by determining the feasibility, desirability, and importance of forward-looking corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The selection of 25 study participants who had port administration and management expertise was a delimitation. The study participants

possessed expertise in the field of seaport administration and logistics, contributing their knowledge of what might be desirable, feasible, and important in transforming the ICDs to sustainable enterprise. The measures of participant consensus based upon rating scales for desirability and feasibility in the second round, the ranking order for importance in the third round, and rating for confidence in the fourth round, were consistent with the delimitations considered in the study. The appraisal and measurements used for building consensus from the response data was a delimitation, which was consistent with the total numbers of controlled feedback provided to, requested by, and shared with the panelists.

Another delimitation of the study was that expert panelists were based in Nigeria belonging to the maritime association that was contacted for sampling purposes. Because Delphi studies are synonymous with a purposeful sampling strategy, an opportunity existed for transferability based on the inclusion criteria of the panelists and description of the phenomenon of the study (Brady, 2015). The transferability of this study was grounded on the alignment of the expertise of the panelists with the needs of other maritime practitioners within the African continent, who might read the study. SurveyMonkey, the online survey administration tool that was used, ensured consistency in how the panelists took the survey through the four rounds of data collection. The Round 1 survey questionnaire was the only avenue for participants to provide additional inputs to the preconstructed list of solution elements or units for consensus. The use of descriptive statistical techniques (frequencies, medians, weighted averages) involving the calculations of percentage response rates and percentages were employed for the level of agreement of the panelists' responses. The forward-looking solutions gathered in the

Round 4 survey were based upon consensus building of expert opinions rather than real scientific evidence. The resulting consensus-based list of corporate governance practices could be used as a starting point for future research when corporate governance practices for transforming the old-path dependence in the maritime industry need to be reviewed and updated once again.

Limitations

Limitations could be defined as restrictions on the study that the researcher could not reasonably dismiss. In many situations, there could be some potential weaknesses in a study, which the researcher could not control because of certain restricting factors such as limited funding and statistical model constraints (Marshall & Rossman, 2016). The main focus of the study was the predictions about the efficacy of CGIs, such as corporate governance practices, to transform the old-path dependence of the management of ICDs into a sustainable enterprise. Unverified self-reported proficiency of the panelists, including the biases they might have had during the process of data collection, was an essential limitation in the study. Experts' shared opinions were restricted to some extent because their experiences were limited only to the patterns of the old-path dependence of the management of the port industry. Also, if the panelists failed to take the survey seriously, or had concerns about the confidentiality of their data, the accuracy and consistency of their responses might have been affected (Meijering, Kampen, & Tobi, 2013; Skulmoski et al., 2007). Predictions could not represent the assurances of any specific outcome, and the transferability of the findings were dependent upon readers'

interpretation of whether the study's findings could apply to other contexts, situations, times, and populations (Heitner, Kahn, & Sherman, 2013; Skulmoski et al., 2007).

Consistent with Delphi studies, the absence of face-to-face communication between the panelists that results in a lack of potential debate or brainstorming was an important dimension of anonymity in the study. There was no opportunity for expert interactions because panelists had to channel their responses through SurveyMonkey, which is an electronic online survey tool. The absence of debate might have concealed reasons for divergent expert responses as the panelists could not share their opinions and clarifications for ratings and the quality of those clarifications (Heitner et al., 2013; Skulmoski et al., 2007). Another significant limitation that might have occurred when conducting this study was researcher bias based on lone organizing and rating of responses by the panelists. Detailed audit trails were kept to overcome such researcher bias. The audit trails promoted dependability, or the consistency and repeatability of the findings regarding (a) how responses from the open-ended Round 1 questionnaire were analyzed and developed for solutions that comprised the Likert-items for the Round 2 and Round 3 surveys, (b) controlled feedback from panelists, and (c) data reduction analysis.

Significance of the Study

ICDs are an integral part of the Nigerian maritime logistics by extending seaport functions inland. The intent of CGIs is consistent with the effective management of ICDs to promote positive social change in the industry by eradicating corporate financial corruption attributable to old-path dependence among stakeholders (BSR, 2016; Hansen, 2018; NAN, 2016). The collective action by leaders of CGIs such as MACN is essential

to improve the concession contracts of the ICD infrastructure and stimulate shippers to conduct their businesses in remote regions (BSR, 2016; NAN, 2016; Van Schoor & Luetge, 2017). Consensus-based opinions of the maritime industry experts through MACN may reduce collusive corporate corruption practices ranging from facilitation payments and bribes to extortion in the movement of cargos and ships in and out of the country (Eleagu & Akonye, 2018; Fraser & Notteboom, 2016; Van Schoor & Luetge, 2017). Tax evasion and diversion of public funds leading to low competitiveness and economic inclusivity could be significantly reduced if the leaders of CGIs are committed to the success of MACN (Hansen, 2018; Notteboom et al., 2013). Consensus-based opinions of the maritime industry leaders and experts are necessary to make the management of the ICDs a sustainable enterprise (Brooks, Cullinane, & Pallis, 2017; BSR, 2016; Fraser & Notteboom, 2016; NAN, 2016).

The leaders of CGIs may articulate the program of the MACN to advance tangible economic benefits to corporations and the public through the concession contracts of ICDs. The government could achieve this purpose by using the ICD project to facilitate job creation, export promotion, diversification of the economy, and increased foreign exchange earnings (Benson & David, 2018; Dungore & Joshi, 2014; Elisha, 2019; Haralambides, 2017). Through the MACN initiative, the government may achieve increased revenue generation into the federation account by strengthening weak enforcement of governance practices and standardizing operating procedures across stakeholder groups (BSR, 2016; NAN, 2016). A new paradigm shift may be necessary for

this area by the government to focus on and enforce the agenda of MACN through an unconventional approach to promoting the desired change in the industry.

Significance to Practice

Leaders of CGIs need to develop new strategies for restructuring the old-path dependence among stakeholders for the effective management of ICD facilities that possess the potential to boost the nation's economy. The government needs to create a robust environment that is attractive to shipping lines, which are capable of reducing corruption and accelerate containerized trade in the hinterland (Abdul et al., 2017; Afolabi, 2015; Ships & Ports, 2017). In 2014, the maritime sector recorded a total of 57,034,338 Gross Tonnage (GT) of cargo delivery, while shippers recorded 5,139 vessels with 61,990,999 GT in 2015 showing a 12.21% growth increase (Akuki, 2016). By this significant growth, the government could overcome the problem of long delays caused by double-handling created by the Nigerian Customs Service's (NCS) intervention and inspection at the ports (Ojadi & Walters, 2015). The collective action of maritime stakeholders engendered by MACN could play a vital role in this area to discourage delays created by the impediment to the speedy flow of cargo through the ports by government agencies.

Significance to Theory

The collective commitment of stakeholders for the success of CGIs for economic and industry growth is gathering momentum gradually because the agenda of MACN is nascent in the Nigerian maritime sector. The existing literature on the path dependence theory is useful for understanding stakeholder values, standards, and rules in maritime

governance that shape the historical paths of institutions, which is intrinsic with creating resistance to organizational change (Notteboom et al., 2013). The concept of old-path dependence among dominant industry actors is predisposed to the understanding that old governance ideas will always work, so they should not be challenged (Skellern et al., 2017). The commitment and ability of stakeholders to adapt and transform from the old path to the new path, through CGIs, require a new paradigm shift for economic performance and industry growth (Bhattacharya, 2017; Skellern et al., 2017). More extreme change efforts, especially in a diverse stakeholder environment, such as those considered revolutionary, require the government to overcome resistance to CGIs for a sustainable trajectory toward accelerated industry growth (Shinohara & Saika, 2018). Modern-day port governance structures require adapting to the new management shift. These governance structures include transparency of management decisions, public disclosure of documents, and open procurement procedures that are necessary to advance stakeholder performance outcomes in the sector (Anele, 2018; Fakoya & Lawal, 2020; Okoroafor & Bernard, 2019).

Significance to Social Change

The research findings from the study may have a potential implication of positive social change among practitioners and other numerous stakeholders in the maritime sector in various ways. Since port governance consists of a diversity of social, economic, and political actors, the collective action of CGIs to curb old-path dependence may produce the desired result of boosting the overall performance of the ICD project facilitated by an effective port governance process (Sanchez & Pinto, 2015). The

governance process to enforce the efficacy of CGIs is defined according to how the interaction between maritime policymakers and the port authority takes place to overcome old-path dependence, which translates to corporate governance issues (Laxe et al., 2016). These issues include the governance structures of maritime corporations that affect shareholder influence, the structure of the board of governors, and corporate social responsibility (Barnes-Dabban, van Koppen, & van Tatenhove, 2018; Laxe et al., 2016; Ugani, 2018). Through consensus-based opinions of industry experts, CGIs enabled by efficient port governance structures and seamless information management may facilitate the competitiveness and sustainability of the ICD logistics chains (Brooks et al., 2017). This process can be achieved if there exists active participation of all stakeholders involved in the port reform policy and decision-making process through clearly defined roles and responsibilities among government agencies and other maritime corporations.

To promote competitiveness and sustainability in the ICD logistics chains, the government needs to promote the balanced participation of all stakeholders in the port reform policy and decision-making process. When there is balanced participation, a collective action embracing CGIs may be helpful to discourage path-dependent behaviors among port actors including institutional barriers (e.g., corruption, port congestion) that cause resistance to change (Abayomi, 2016; Babatunde & Perera, 2017; Dominic, Ezeabasili, Okoro, Dim, & Chikezie, 2015; Julius & Odiegwu, 2019; Michael, 2019). Since value-added and employment are used for comparing ports' economic performance (Nguyen & Notteboom, 2017), the government may increase the involvement of the private sector and apply the tenets of CGIs in the ICD concessions. This approach is

necessary because it may have an impact on local and regional employment by creating job opportunities and enhancing trade and economy in the Nigerian maritime sector (Badejo & Solaja, 2017; Benson & David, 2018; Eniola, Njoku, Oluwatosin, & Okoko, 2014). Applying the tenets of CGIs in the ICD concessions may be relevant in promoting quality service delivery and performance, reduced tariff or costs, enhanced value for money, equity, access, and accountability (Badejo & Solaja, 2017; Dominic et al., 2015; Eniola et al., 2014). The tenets of CGIs in the ICD concessions may be useful in tackling key social challenges such as the threat to the safety and well-being of onboard crew enabled by corruption through facilitation payments and gifts (Benderson, 2016; Hansen, 2018).

Summary and Transition

In Chapter 1, an introduction to the study was presented in which the problem statement was used to narrate the need for research as to successfully transforming the old-path dependence of the management of ICDs through consensus building. This chapter contained the background, objective, and rationale for choosing the topic, research methods, and design. The conceptual framework, the nature of the study, and the method of inquiry, which were used to support this investigation, were discussed in the sections of the chapter. The significance of the study and social change implications were also discussed.

Chapter 2 contains a review of the current literature that establishes the relevance of restructuring old-path dependence in managing ICDs through the collective action of stakeholders for the success of CGIs. This chapter entails a review of the existing

literature, which formed the foundation for the research study. Chapter 2 also includes the search strategy that was used to recognize and validate appropriate resources and a review and synthesis of the literature associated with key concepts of the study, the conceptual framework, and the research methods. A gap in the literature is described at the end of the chapter, reinforcing further explanation of the significance of conducting this study. Chapter 2 ends with a chapter summary and transition to Chapter 3. Chapter 3 contains the rationale for selecting a classical Delphi design to address the research questions for this study. The chapter provides a detailed description of the methodology employed in conducting the study, including an assessment of the trustworthiness of the methodology. Chapter 4 contains the results of the study, including the research procedures involved in collecting and analyzing data for the four survey rounds. Chapter 5 contains the interpretation of the findings of the study, limitations of the study, recommendations for further research, implications of the study, and conclusions.

Chapter 2: Literature Review

Chapter 2 contains a review of the existing literature related to the selected research problem. The social problem for this study is the introduction of CGIs has not yielded the desired results for change in the Nigerian maritime industry (BSR, 2016; Hansen, 2018). The specific problem is the failure of Nigerian maritime regulators to break away from old-path dependence for the administration and operation of ICDs, which stunts industry growth and development (Hansen, 2018). The purpose of this qualitative classical Delphi study was to determine how a panel of 25 Nigerian maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. Maritime industry practitioners and scholars are aware of the current level of government-sponsored interventions, such as MACN, to drive collective action in developing strategies against old-path dependence among industry stakeholders (BSR, 2016; NAN, 2016; Van Schoor & Luetge, 2017). Further research was desirable to fill a gap in the literature, focused on how leaders of corporate governance initiatives could be successful in transforming old-path dependence on the management of ICDs in the maritime sector (Akinyemi, 2016; Fraser & Notteboom, 2016; Van Schoor & Luetge, 2017). This gap in the literature has added to the persistence of the specific problem underscoring the need for necessary transformation initiatives in the maritime industry.

The remaining sections of Chapter 2 begin with a description of the literature search strategy employed for identifying the literature for this review, focusing on the

broad concepts related to the study. The next section contains a review of the literature that forms the basis for the conceptual framework for the study. This section also contains the justification for the use of the path dependence theory employed for the Delphi study and its propositions as the anchor for the conceptual framework. Following that section is the review of the current literature related to each of the concepts that form part of the framework. The review was conducted with a focus on establishing the relevance of the problem from what is already known in the existing literature and identifying the consensus-based gap existing in the literature. The next section then contains a brief description of the current literature related to the problem synthesizing existing research and the study's methodology. Chapter 2 ends with a summary section that includes the conclusions from the review, the need for this study, gap in the literature, and transition to the next chapter on methodology.

Literature Search Strategy

The conceptual components connected to the primary research question were used to form a foundation for the literature review of peer-reviewed articles and other relevant research for this study. Significant historical literature was found in diverse disciplines of management, economics, psychology, and political science. This review was focused primarily on the relevant literature published since the year 2015. The argument and discussion of the older literature were limited to presenting a historical background to support the current study.

The starting points used to conduct broad searches for scholarly literature most suitable for the research topic included the Thoreau multiple database search tool from

the Walden University library and the Google Scholar search engine. Relevant databases and search engines used for finding peer-reviewed articles during this review included PsycINFO, ABI/INFORM Complete, Business Source Complete, SAGE Premier, ProQuest Dissertations & Theses at Walden University, and Science Direct. The databases and search engines were checked with the key research terms such as *port corporate governance, maritime governance structure, inland container depot, path dependence, coordinated governance initiatives, and maritime anti-corruption network*. An additional source for the literature was the reference sections of scholarly articles and dissertations already selected. The literature search results were narrowed to conditions of peer review and period of publication. A few articles from nonpeer-reviewed journals and reputable trade publications dealing with relevant research focus were also added to the review. All the selected resources were reviewed and synthesized to create this literature review. A classification of the resources covered in this review appears in Table 1 based on the corresponding key terms and the year of publication.

Table 1

Reviewed Resources: Classification and Year of Publication

Key terms used in search	2020	2019	2018	2017	2016	2015	Prior	Total
Port corporate governance	2	11	16	10	13	13	18	83
Maritime governance structure	1	5	14	8	13	14	12	67
Inland container depot	1	2	5	5	6	2	5	26
Path dependence	1	1	4	5	2	6	8	27
Coordinated governance initiatives	0	1	4	6	7	11	4	33
Maritime anti-corruption network	0	1	4	6	5	11	4	31
Total	5	21	47	40	46	57	51	267

Conceptual Framework

The conceptual framework was developed to guide this study by incorporating the central phenomenon of old-path dependence with other concepts relating to port corporate governance, maritime governance structure, ICDs, CGIs, MACN, and industry growth. The resulting conceptual framework signified how the elements of forward-looking corporate port governance practices could successfully transform the old-path dependence of the management of ICDs into a sustainable enterprise. Chapter 1 included definitions of each of the concepts forming part of the framework and will be further discussed in this chapter.

The conceptual framework was an interpretative lens for understanding the concepts considered in this study. The conceptual framework for the study was consistent with concepts related to shared governance in the maritime sector examined through the lens of path dependence theory. Path dependence of shared governance is a foundational concept applied in past studies relative to explaining the evolution of maritime governance and change management (De Langen, 2006; Notteboom et al., 2013). Barriers to the resilience of governance frameworks and institutions for change are based on path dependence arguments (Dooms et al., 2013). The conceptual framework, as depicted in Figure 1, shows how the industry stakeholders of the ICDs concession might use corporate governance practices embedded in government-sponsored interventions to overcome old-path dependence of maritime stakeholders that serves as a barrier to boosting industry growth and the nation’s economy.

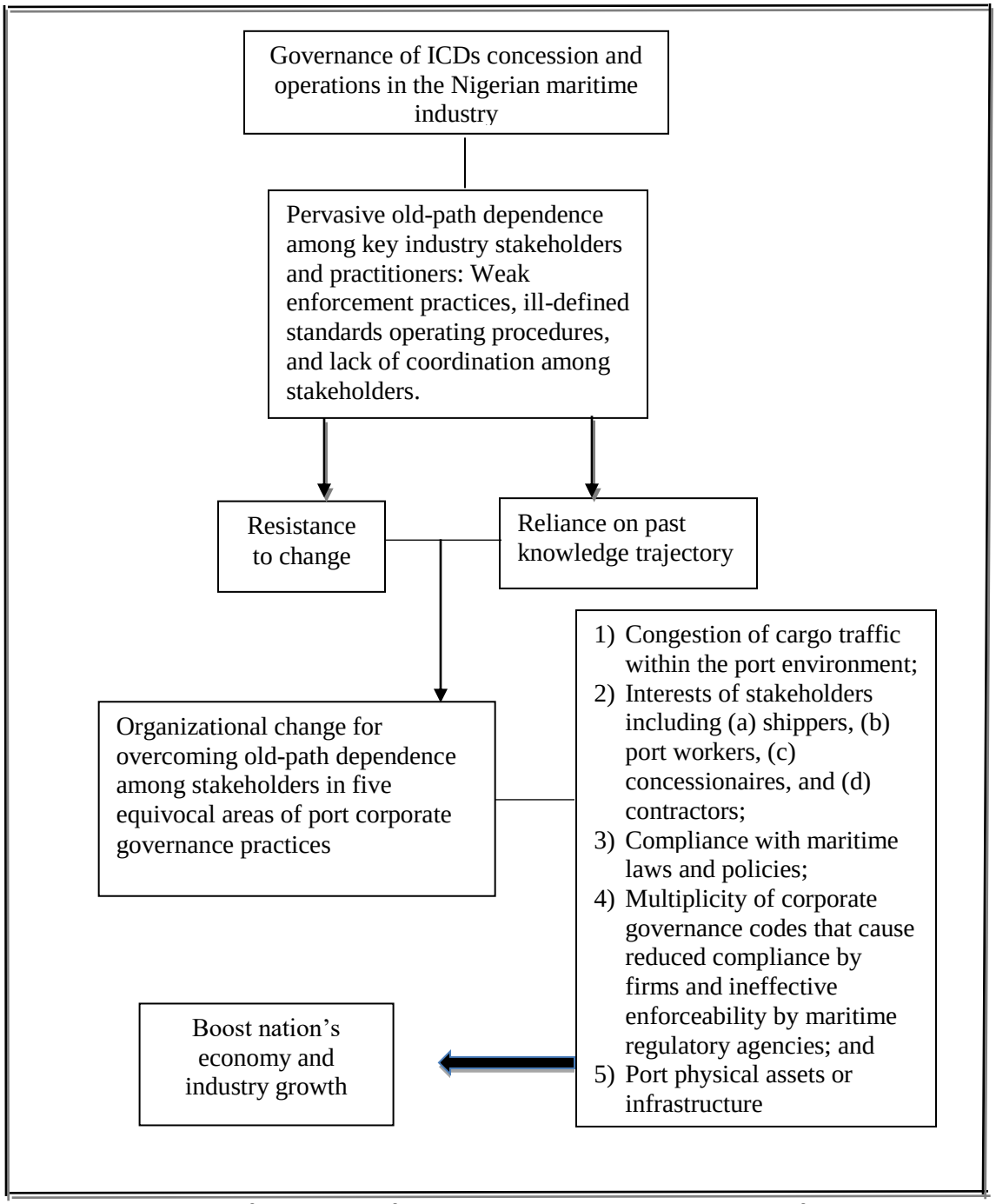


Figure 1. Conceptual framework of overcoming old-path dependence of maritime stakeholders of the management of ICDs into a sustainable enterprise.

There are different understandings about the role that theory plays in qualitative research (Maxwell, 2013). These understandings include the connection of theory to the

researcher's selected approach, underlying epistemologies, and the broadness of the role of qualitative research theory when compared to the research procedure (Ormston, Spencer, Barnard, & Snape, 2014). The role of theory varies in some particular forms in qualitative research. A qualitative researcher might adopt theories from other professions or disciplines, increase the scope of existing theories when addressing the research questions, strengthen an existing theory with evidence, or create a new theory (Nilsen, 2015). A theory can also be used as an element of a conceptual framework to guide the researcher in deciding what and how to study the research topic (Maxwell, 2013). The selected theory and how it is applied influences the research questions, research design, sample selection, and methodology (Ormston et al., 2014). By the various enumerated roles of theory in qualitative research, the researcher is provided the direction about the processes involved in data collection, analysis, and interpretation.

The path dependence theory is a critical element of the conceptual framework for this Classical Delphi study. The study of maritime governance evolved in the context of government-sponsored interventions that are necessary to analyze shared governance issues (Brooks & Cullinane, 2007; De Langen, 2006). The origin of path dependence as a theory for explaining institutional change is attributable to the seminal works of Arthur (1989) and David (1985). A proposition of this theory is leader decisions made in the present are influenced and limited by decisions made in the past, even when past conditions are not relevant to the present (Arthur, 1989; David, 1985). From the context of government-sponsored interventions that are necessary for analyzing shared governance issues, path dependence remains an evolution of individual and group events,

actions, and activities unfolding over time in a social-constructivist perspective (Sorensen, 2015). This perspective is consistent with studying the creation and change of institutional arrangements focused on the roles of critical actors in the process of creating paradigm shifts for new paths (Sorensen, 2015). According to Dooms et al. (2013), more extreme change efforts, such as those considered revolutionary, require leaders of institutions to overcome resistance to government-sponsored interventions.

Arthur (1989) and David (1985) highlighted the weaknesses in the current efforts towards institutional values, standards, and rules that shape the path of organizations, which often create resistance to changes and depart from historical paths. These historical paths are limited by shifts in the roles and behavior of various stakeholders, making coordination of planned initiatives difficult to achieve (Arthur, 1989; David, 1985). The difficulty in the coordination of planned initiatives makes institutions to be slow to change because industry stakeholders believe deviation from historical path experience will compromise their political and economic interests (Dooms et al., 2013; Trouve et al., 2010). Based on this perspective on path dependence, organizational actors need to break from old institutional arrangements and practices in which they are embedded through "mindful deviation" and make the emergence of a new path possible (Gill & Williams, 2014). Through "mindful deviation" from old-path dependence, industry stakeholders can overcome resistance to institutional change by taking planned and conscious actions to reframe their thinking and approach along new pathways.

The central propositions of the theory of path dependence are characterized by four interrelated concepts: contingency, lock-in, critical juncture, and self-reinforcing

mechanisms of the ICD project in the Nigerian maritime industry. Contingency is relevant to the choice point of management intentions and behaviors that occur out of multiple possible futures of the ICD project, while its determination will depend on dynamic political and power relations when new institutions are established (Sorensen, 2015). Lock-in refers to an irreversible situation where actors of the ICD project are trapped into a specific course of management action, thereby forcing themselves to rely on a dominant institutional arrangement because they have lost their leeway to shape the current path (Sydow & Schreyogg, 2015; Zhang, Geerlings, El Makhloufi, & Chen, 2018). In the course of a path development, critical juncture happens as a shift between the phase of contingency and the point of lock-in where path-dependent effects become weaker, consequently leaving actors with more leeway (Peinert, 2018). Self-reinforcing mechanisms represent the main drivers of path dependence, where actors' scope of management actions are reduced and driven into the phase of lock-in (Sorensen, 2015). These mechanisms are also responsible for organizational rigidities and the effect of lock-in situations where management actors try to avoid undesired outcomes of the actions they created leading to the recurrence of the problem (Peinert, 2018; Zhang et al., 2018). From an analytical perspective, the four interrelated concepts of path dependence portend the bureaucracies consistent with organizations, which are characterized by stiff ways of functioning and the incapacity to restructure them. A strategic collective action embedded in government-sponsored interventions is essential in overcoming the struggle and resistance to organizational changes in organized systems.

Researchers have employed the theory of path dependence of Arthur (1989) and David (1985) as a framework for studying the activities of governance practices and government-sponsored interventions across organizations and industries. Noting the differences of path creation from and institutional arrangements and governance practices, Tongzon, Ng, and Shou (2015) used the path dependence theory as the framework for studying the process of reforming port economics that advanced port development in Singapore and Tianjin, China. While conducting a qualitative case study that focused on the role of a government agency at different stages associated with policies for creating a new organizational path on the Norwegian maritime coast, Holmen and Fosse (2017) used the theory of path dependence as the theoretical framework. Fraser and Notteboom (2015) used the theory of path dependence of Arthur (1989) and David (1985) as their framework for conducting a qualitative case study of the extent to which institutional governance structures have produced and reconciled port growth in Southern Africa. The theory also served as the framework for a study involving the exploration of the diverging ways in which a range of different institutions in Naples have planned for port and city (De Martino, 2016). The understanding of lock-in situations and the ability to break from path dependencies promoted co-operation and new synergies between different actors and levels of planning in the region.

The theory of path dependence was useful in creating an effective framework because the qualitative Classical Delphi study involved identifying multiple viewpoints and consensus among industry experts as to desirable, feasible, and important corporate governance practices. Skulmoski et al., 2007 and Von der Gracht (2008) supported the

propositions consistent with the path dependence theory to guide the data collection and analysis process of a Delphi study. For this study, the path dependence theory was used to illuminate and reinforce the elements of forward-looking corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The propositions of the path dependence theory were employed for creating the questions that formed part of the protocols for data collection through an open-ended questionnaire from several iterative rounds.

All the central propositions of this conceptual framework were applied and discussed in previous research studies. Giannakopoulou, Thalassinos, and Stamatopoulos (2016) evaluated the role of corporate governance practices as the determinant of the operational and economic performance of the maritime industry. De Langen and Van der Lugt (2017) suggested that the choice and type of a specific governance structure influences the overall performance of a port when the most appropriate governance model for port development is utilized. According to Ojadi and Walters (2015), the corruption challenge stemming from old-path dependence among maritime stakeholders imposes a high cost on maritime agencies and creates a barrier to effective governance practices required for trade and development with other port countries. Ha, Yang, Notteboom, Ng, and Heo (2017) provided port performance indicators (PPIs) that help port stakeholders to make better decisions on port operations to enhance transparency in financial reporting and increase port attractiveness through effective government-sponsored interventions. Synthesizing the findings from all these previous studies helps in concluding that the adoption of government-sponsored interventions embedded in

good governance practices may help in overcoming old-path dependence of maritime actors that create a barrier to the operational and economic performance of the maritime industry.

Organizational Change

Krogh (2018) evaluated change as an ongoing and never-ending process of organizational life. The factors that determine organizational change are (a) task, (b) structure, (c) technology, and (d) people to explain how to make organizational change more effective (Krogh, 2018). The major tenets of the organizational change theory include (a) the diagnosis of the problem, (b) assessing the motivation and capacity for change, (c) examining the available resources of the change agents, and (d) stating clearly the roles of the change agents to gain the understanding and the expectations of other parties involved (Kanter et al., 1992; Kral & Kralova, 2016). Other tenets relate to maintaining group communication for management change, receiving relevant feedback towards the change process, and deviating from the old path to create paradigm shifts for new ones (Kral & Kralova, 2016; Sorensen, 2015). Change agents withdraw gradually from their roles over time when the change becomes an intrinsic part of the organizational culture (Kral & Kralova, 2016; Park & Kim, 2015).

Consistent with the propositions of the path dependence theory and organizational change theory, the conceptual framework for this qualitative classical Delphi study aligns with five distinct areas of corporate governance practices. Based on the review of the current literature, these critical areas of governance practices are equivocal in the nation's port governance structure in which consensus building among port actors is necessary to

produce solutions that are desirable, feasible, and important. The five areas, covered in the next section, relate to: (a) congestion of cargo traffic within the port environment (Adonye et al., 2019; BSR, 2014; Gidado, 2015; Michael, 2019; Nguyen & Notteboom, 2016; Okechukwu, 2015; Olusegun, 2020; Salisu & Raji, 2017; Somuyiwa & Ogundele, 2015); (b) interests of stakeholders including shippers, port workers, concessionaires, and contractors (Akinyemi, 2016; Dooms et al., 2013; Fraser & Notteboom, 2015; Kenyon, Goldsmith, Neureuther, & Zhou, 2018); (c) compliance with maritime laws and policies (Anele, 2018; Benson & David, 2018; BSR, 2014; BSR, 2016; Chircop, Dzidzornu, & Oguamanam, 2016; Dike & Giniwa, 2019; Igbokwe, 2015); (d) multiplicity of corporate governance codes (Ajibo & Ajibo, 2019; Ojogbo & Nwano, 2019; Okike, Adegbite, Nakpodia, & Adegbite, 2015; Osemeke & Adegbite, 2016; Osemwengie, Awele, & Akpotor, 2019); and (e) port physical assets or infrastructure (Dominic et al., 2015; Kenyon et al., 2018; Okeke & Kalu, 2019; Onwuegbuchunam, 2020; Opawole & Jagboro, 2016; Parola et al., 2015).

Literature Review

This section contains a review of the current literature on the concepts that inform the conceptual framework. The historical literature and context for port governance and the persistence of the inability of maritime regulators to break away from old-path dependence for the administration and operations of ICDs, which stunts industry growth and development, are described briefly. The role of corporate governance practices in general and government-sponsored interventions in particular, towards mitigating the barriers to CGIs for successfully transforming the old-path dependence of the

management of ICDs into a sustainable enterprise, is also reviewed in this qualitative classical Delphi study.

Historical Context

According to Badejo and Solaja (2017), port operations and development in Nigeria began during the era of British colonialism when big multinational corporations such as John Holt, CFAO, Elder Dempster, and UAC dominated the governance of the shipping economy by the exclusive use of the nation's ports and terminals. In 1906, the reform of the Nigerian maritime industry began towards improving efficiency in port development, coordination of services, tariffs and revenue, trade, and shipping (Badejo & Solaja, 2017). In 1954, the evolution of shipping reforms metamorphosed into the creation of the Nigerian Ports Authority (NPA) when the government adopted the "landlord" port model that empowered the agency to own, operate, control, and maintain all the ports including fixed and movable assets (Akinyemi, 2016). In 1997, the government improved the maritime and shipping reforms by further strengthening the "landlord" port model that was characterized by decentralization, privatization, and competition in the port system (Akinyemi, 2016; Omoke & Onwuegbuchunam, 2018). Under the model, the government granted concessions to private investors to operate port terminals in a trade for investing in port infrastructure and making remittances to the government (Ndikom, Buhari, & Okezie, 2019; Nwanosike, Tipi, & Warnock-Smith, 2016; Okeke & Kalu, 2019). The effect of these reforms became significant in improving the efficiency in the governance of the Nigerian ports.

In a general context, port governance refers to the overarching structures and relationships that direct, control, and influence the shipping and port sector. Maritime governance in Nigeria involves the adoption and enforcement of specific maritime rules governing performance and property rights that are enforced by the government (Akinyemi, 2016). Toward adapting to the new framework, the Nigerian government entered an era of port reform, shifting applicable governance structures (Akinyemi, 2016; Badejo & Solaja, 2017; Elisha, 2019). In 2004, the government commissioned Messrs Haskoning Group, an international maritime consulting company, to review the existing governance framework for restructuring the ports to meet the standard of global maritime practices (Akinyemi, 2016). The government adopted three primary recommendations by the consulting firm to implement the reform process. These recommendations included a suitable legal and regulatory framework necessary for private sector participation in port operations, initiation of labor reorganization that eliminated redundancy from the system, and transparent selection of private operators in procurement processes (Akinyemi, 2016; Badejo & Solaja, 2017). The era of port reform enabled significant changes for improving port governance in the industry.

The “landlord” port model emerged as a prominent reform initiative that promoted port operational efficiency and productivity. Despite the global economic challenge that makes funds for port investment more difficult to generate, Barnes-Dabban, van Koppen, and Mol (2017) stated that the “landlord” port model, characterized by decentralization, privatization, and competition in the port system, has become a governance tool applicable to port reform. The decentralization of the ports became

essential to eliminate the bureaucratic bottlenecks acting as barriers to the port administration process and allow port managers to function efficiently (Akinyemi, 2016; Nwanosike et al., 2016). The government introduced the engagement of private sector participation to improve port performance through the privatization initiative for better economic performance (Akinyemi, 2016; Barnes-Dabban et al., 2017). The engagement of private sector management, integrated with the decentralization of ports into terminals, set the stage for intra-port and inter-port competition as private operators sought to win concessions from neighboring ports (Ndikom et al., 2019; Nwanosike et al., 2016; Omoke & Onwuegbuchunam, 2018). The restructuring initiative, through the port model, met the objectives of improving the capacity, efficiency, and productivity of the ports during the current and post-reform period.

The significance of port reform in the Nigerian maritime industry extended to addressing port congestion and gross underutilization of some seaport infrastructure that served as obstacles to port efficiency. Since the early 2000s, the seaports of Lagos and Port Harcourt have been disreputable for inadequate facilities and congestion which are indications of sub-optimal efficiency in the system (Chikere, Ibe, Stephens, Nze, & Ukpere, 2014; Okeke & Kalu, 2019; Okon & Smart, 2018; Somuyiwa, & Ogundele, 2015). The incessant congestion in the ports resulted in the diversion of vessels scheduled for the Nigerian ports to other ports of the neighboring countries (Chikere et al., 2014; Michael, 2019; Okeke & Kalu, 2019). Inadequate market because of the low economic base of the port's immediate environment, poor inland route network, deficient port facilities were the causes of gross underutilization of the Calabar seaport (Somuyiwa, &

Ogundele, 2015). As part of a broader program of port reform in early 2006, the government engaged in massive expansion and modernization of the nation's seaports system to reduce port congestion and underutilization that have caused a loss of revenue, unemployment and a bad image to the industry (Chikere et al., 2014; Michael, 2019; Somuyiwa & Ogundele, 2015). The provision of modern maritime infrastructure and planned socio-economic development became essential in the regulatory framework for port reform to tackle congestion and underutilization challenges in the nation's seaports.

Consistent with removing obstacles to port performance and efficiency in the Nigerian maritime industry, another critical aspect of port reform was the need to overcome corrupt corporate practices by the executive teams of key maritime organizations. In 2015, there was a loss of approximately 20% of the projected revenue from leases and concessions of port facilities resulting from the financial mismanagement by the executive management teams of maritime agencies (Magaji, 2016). This problem emanated from the misleading ways for financial performance disclosure and corporate scandal by the board of directors of maritime companies who failed to comply with revenue generation arrangements to conform to acceptable management accounting and reporting standards in the industry (Aina & Adejugbe, 2015; Magaji, 2016; Ofuani et al., 2018; Okoroafor & Bernard, 2019). In a strategic approach to curbing corporate scandal in the industry, Abata and Migiro (2016) suggested corporate governance initiative that reinforces a financial perspective in which transparent composition of boards of directors, chief executives, and senior managers of maritime firms became necessary. This idea has not yielded the desired result for port reform because of the lack of a collective action by

port actors to enable the evolution of governance arrangements for maritime organizations and their relevance to corporate financial performance.

From another critical perspective, the existence of multiple corporate governance codes regulating the functions of key stakeholder organizations and government agencies of the port industry has also encouraged corporate scandal continuously (Aina & Adejugbe, 2015; Ajibo & Ajibo, 2019; Ojogbo & Nwano, 2019; Osemeke & Adegbite, 2016). The existence of multiple governance codes such as the SEC code, National Code of Corporate Governance, PENCOM code, CBN code, SEC code for Shareholders, and NAICOM code has persistently created conflicts and overlaps of functions, which stimulates the executives of maritime agencies to engage in misleading actions for financial performance disclosure (Ajibo & Ajibo, 2019; Osemeke & Adegbite, 2016; Osemwengie et al., 2019). This problem of multiple governance codes has persisted and is still ongoing because there is the lack of consensus as to the adoption of a unified governance code that will remove conflicts and overlaps of functions and facilitate compliance and enforcement of standards for financial performance disclosure (Aina & Adejugbe, 2015; Ajibo & Ajibo, 2019; Osemeke & Adegbite, 2016). The adoption of a unified corporate governance code specific to the port industry by leaders may promote the overall performance and efficiency of the nation's port infrastructure. Against this historical background and literature, the current literature related to all the key concepts of this study is reviewed.

Port Governance

The general research problem for this study is the introduction of CGIs has not yielded the desired results for change in port governance in the Nigerian maritime industry. Port governance was structured in Nigeria to optimize port performance within a supply chain in a trade environment that stimulated the concerns of shipping lines and cargo customers (Akinyemi, 2016; Elisha, 2019; Kenyon et al., 2018; Onwuegbuchunam, 2020). The optimization of port performance aligned with the specific objectives of government reforms which included the need to increase efficiency in port operation, decrease the cost of port services to stakeholders, decrease the cost to the government and to attract private sector participation (Buhari, Okeke, & Samuel, 2017). The continuation of reform activities by the government necessitates the quest to identify the most appropriate allocation of governance structures to meet the current and future needs of port users (Akinyemi, 2016; Amodu, 2018; Barnes-Dabban et al., 2018). These governance structures are consistent with addressing critical port performance issues through the reforms. According to Onwuegbuchunam (2018), the specific port performance issues which the reforms are expected to deal with apply to (i) increasing efficiency through the concession of terminals to private operators; (ii) reducing the cost of services to the port users by administering competitive price services; and (iii) reducing government expenditure (public costs) for supporting a viable port sector. Addressing these issues is necessary to position the maritime in a competitive and sustainable enterprise.

The role of port governance is significant to port reform as it serves as a key determinant of the operational and economic performance of the Nigerian maritime enterprise. These two dimensions of port performance are the vital factors that enhance regional development and competitiveness because ports generally respond to the increasing global trade pressures to meet the rising changes in sea traffic and technology in the maritime industry (Rodrigue, Cooper, & Merk, 2014). Both public and private maritime agencies need a practical corporate governance approach that is primary in every strategic and operational decision to gain a competitive advantage in the industry (Akinyemi, 2016; Kenyon et al., 2018; Onwuegbuchunam, 2020; Veronique & Huang, 2019). In line with the report of the Organization for Economic Cooperation and Development, port governance is directly linked to how corporate governance practices in shipping corporations are directed and controlled because of its importance to port performance and effectiveness (Organization for Economic Cooperation and Development [OECD], 2017). A dominant feature that influences the efficiency of corporate governance practices in the nation's shipping corporations is the allocation of governance structures that reinforce their operating and financial performance (Akinyemi, 2016; Ofuani et al., 2018; Onwuegbuchunam, 2020; Ugani, 2018; Veronique & Huang, 2019). These governance structures are organization-specific and vary between public and private agencies at both state and regional levels, each with differing priorities, requirements, and procedures.

The current port governance framework in the Nigerian maritime industry is influenced by the ability of key actors to adjust management strategies and corporate

goals to align with the economic environment. According to Havenga, Simpson, and Goedhals-Gerber (2017), port governance practice requires the distribution of roles between the public and private actors and the appropriate allocation of roles and responsibilities, risks, and rewards to meet the strategic goals of the devolution programs. For port governance structures to be active, the government and industry stakeholders need to define and implement their strategic management visions to achieve economic performance (Omoke et al., 2015a; Onwuegbuchunam, 2020; Veronique & Huang, 2019). According to Balla, China, Fouda, and Bissemb (2016), running an effective port governance structure depends on the governance model under which it operates together with a seamless legislative, economic, and social environment. There are four primary governance models which the government may choose to regulate its port sector; these include the "Private Port," "Landlord Port," "Tool Port," and "Public Port" (Ferrari, Parola, & Tei, 2015). The choice of these port administration models is determined by the way the ports are planned, structured, and managed based on the regional location and the classes of cargo handled (liquid or dry bulk, containers).

Drivers of port governance. Port privatization and devolution have become analogous to port reform because of the necessity to transfer of ownership of port assets from the public to the private sector and funding investments in port facilities, equipment, and systems. Many researchers have defined port devolution broadly as the transfer of responsibilities from state authority to the private sector through a trade or concession agreement, or the allocation of responsibilities (Fraser & Notteboom, 2015; Ndikom et al., 2019). In a broader context, port devolution remains a key driver in the transfer of

government's power, responsibility, and regulatory function to public and private entities to reform the governance of port activities (Faajir & Zidan, 2016; Nwanosike et al., 2016). In the study conducted by Eniola et al. (2014), the idea of utilizing the "landlord port" model in the privatization program is in the presupposition of the noninterference of government in the implementation of concession agreements with private investors to achieve operational performance and economic goals. According to Wanke, Nwaogbe, and Chen (2017), a concession is a form of a public-private partnership arrangement in which private investors (concessionaires) lease port assets from the public authority for a given period to achieve economic goals.

Under the landlord port model, the concession is not only applied as a driver of privatization in the Nigerian port industry; it also serves to maximize the operational efficiency of ports, including construction or rehabilitation of infrastructure by the concessionaires. Most public port concession programs, particularly the Lagos Tincan Island Port, involve the transfer of an existing operational terminal together with the construction of a new terminal by the concessionaire (Ndikom et al., 2019; Opawole & Jagboro, 2016). This concession initiative serves as the core strategic tool in providing new opportunities for injecting private capital and advancing port competitiveness in the Nigerian ports' administration and across the neighboring ports (Kenyon et al., 2018; Omoke, Diugwu, Nwaogbe, Ibe, & Ekpe, 2015b). Similarly, Gamassa and Chen (2017) established that the Ivoirian authorities had maintained a combination of the landlord and public service port management model to channel the course of concession programs because of the increased cost of cargo operations in the nation's seaports. Through this

approach, the country's ports administration stimulated enhanced shipping efficiency that enhanced private sector participation among numerous stakeholders (Gamassa & Chen, 2017). Although the combined port model encounters a lot of management challenges in the country's ports administration, it has assisted the Ivorian government in balancing public interest with the private interests of shareholders (Gamassa & Chen, 2017). To some extent, in Nigeria, there is evidence of transparency in the government's agenda to use the "landlord port" initiative in providing the public with the more exceptional ability to monitor and participate in the port reform process.

The impact of port governance practice in the Nigerian maritime industry remains an issue with the enforcement and the balancing of the government's devolution programs. Sustaining government's reform activities requires maritime agencies to identify the most appropriate allocation of corporate governance structure necessary to meet the current and future needs of port users in the industry (Akinyemi, 2016; Onwuegbuchunam, 2020; Veronique & Huang, 2019). Changes in port governance structure are broadly anticipated to have a positive impact, leading to benefits for the majority of port stakeholders in the industry (Havenga et al., 2017). In the Ghanaian ports devolution policy, the Ghana Ports and Harbors Authority (GPHA) retains the landlord model status to resolve ports' physical, management, and administration problems (Ago, Yang, & Enam, 2016). The private sector participation initiative in port operations has necessitated the restructuring of the governance framework that has improved ports competition in the country (Ago et al., 2016; Akinyemi, 2016; Omoke & Onwuegbuchunam, 2018). In the Nigerian system, Onwuegbuchunam (2018) highlighted

specific and critical port performance issues that the adopted governance structure is expected to address. These issues include (i) increasing efficiency through the concession of terminals to private operators, (ii) reducing the cost of services to the port users by administering competitive price services, and (iii) reducing government expenditure (public costs) for supporting a viable port sector. Under the devolution policy, the governance structure is consistent with addressing these critical port performance issues to position the maritime industry in a competitive and sustainable pedestal.

The corporate governance and management structures of maritime organizations play an essential role in sustaining port reform through the devolution policy. The procedure for port devolution in Nigeria has always been questioned regarding fairness and transparency as well as the evidence of corrupt practices among major actors in the maritime sector. Since the introduction of the government's concepts of privatization and Public-Private Partnership (PPP) in 1999, the concession agreements with the private sector organizations have been inundated with corruption, lack of transparency, unfairness, and secrecy, and improper business conduct (Dominic et al., 2015). As part of the current challenges in the system, Buhari et al. (2017), and Fakoya and Lawal (2020) asserted that the lack of fairness and transparency are of great concern with the increasing degree of port competition among maritime firms operating in port terminals. This problem is attributable to the lack of compliance with maritime regulatory provisions that may strengthen the institutional environment and the culture and ethics of conducting business in the sector (Anele, 2018; Benson & David, 2018; Chircop et al., 2016; Dike & Giniwa, 2019; Njar & Okon, 2019; Nwankwo & Kifordu, 2019). Adequate compliance

with maritime laws may strengthen an effective corporate governance structure in maritime companies. The idea is essential to create an environment of trust, transparency, and accountability that is necessary for achieving long-term investment, financial stability, and sustainable growth in the port industry.

Role of CGIs in port reform. Before the era of the government's concession agenda in the maritime sector in 2006, there were myriads of performance and economic challenges found in the Nigerian seaports, which necessitated the reform program. Port congestion, resulting from the poor administration of the ICDs, is a typical example of the old-path dependence of key maritime actors, who remain resistant to management changes for industry growth. The accrued revenue to the government, shipping corporations, and cargo owners become significantly reduced because of the inefficient performance of the ICDs meant to decongest existing ports and to balance industrial development in the country (Okechukwu, 2015). Because of the old-path dependence of maritime actors, persistent port congestion, resulting from the poor performance of the ICDs, has created economic challenges to the northern shippers. These problems include delayed customs clearance procedures that attract higher overhead costs, additional cargo handling costs, excessive traveling, and hotel bills, and high inland transport costs (Julius & Odiegwu, 2019; Michael, 2019; Okechukwu, 2015). Part of the reform of the maritime industry is the introduction of CGIs that are necessary to transform the old-path dependence of maritime actors (Van Schoor & Luetge, 2017). Through the collective action of all critical stakeholders, the economic performance of the ICDs may improve if port congestion is reduced.

The introduction of CGIs to address economic challenges in the Nigerian maritime is nascent and gaining popularity among numerous stakeholders. The most significant problem that stunts industry growth is corrupt and scandalous corporate practices among key actors because of their lack of adequate compliance-oriented measures to enforce the existing regulatory frameworks (Hansen, 2018). At the global level, this issue of corporate corruption in the maritime industry remains one the most challenging that has detrimental effects on society, economy, and environment (Van Schoor & Luetge, 2017). Collective anti-corruption actions such as the CGIs have become necessary as reliable mechanisms to curb corruption among critical stakeholders in the sector (Van Schoor & Luetge, 2017). Applicable to the Nigerian port environment, an excellent example of such initiatives is the MACN (Hansen, 2018; Van Schoor & Luetge, 2017). Although the MACN is nascent in the Nigerian maritime industry, there is evidence of its inefficiency to completely eradicate corruption among port organizations in the public and private sectors.

Among the primary revenue generation sectors in Nigeria, the nation's port industry is a critical one with a potential of revenue leakages because of corruption that is pervasive among key stakeholders. Corruption increases the cost of doing business in the industry because of its propensity for revenue leakages, which has damaging consequences on society, such as poverty (Eme, Chukwurah, & Iheanacho, 2015). Part of the pitfalls of privatization and port devolution is the higher costs of port services and collusive corruption resulting from poor governance and inefficient port bureaucracies (Fraser & Notteboom, 2015). Various public officials and private agents such as port

operators, customs officials, stevedoring and scanner agents, documentation clerks, and border guards use their different levels of discretionary powers, influence, and opportunities to demand facilitation payments and extort bribes (Eleagu & Akonye, 2018; Sequeira & Djankov, 2014). This problem remains consistent with the old-path dependence of maritime stakeholders viewed from the perspective of institutional change because these actors believe a deviation from their old path and current course of management action will compromise their political and economic interests (Dooms et al., 2013; Fraser & Notteboom, 2015). To achieve industry and economic growth, stakeholders need to embrace CGIs as a new paradigm shift and commitment to break from old institutional arrangements to overcome corruption.

Consensus-based opinions of the maritime industry experts are important to develop an understanding of how stakeholders of CGIs may successfully transform the pervasive old-path dependence that induces corruption in the sector. According to Sequeira and Djankov (2014), there are two primary classifications of corruption in the African port sector; these are collusive corruption and coercive corruption. Collusive corruption occurs when stakeholders (e.g., public officials and private agents) conspire to share lease payments generated through illegal activities. Also, coercive corruption occurs when these actors are persuaded and forced into paying bribes to clear cargoes at the seaports (Sequeira & Djankov, 2014). Drawing on the data analyzed on bribe payments at the ports of Durban and Maputo, these types of corruption have diverse impacts on maritime firms: collusive corruption causes port cost reduction, while coercive corruption increases costs (Sequeira & Djankov, 2014). According to the OECD

(2014) report, collusive and coercive corruption is prevalent among shipping agencies in Durban and Maputo, where bribery incidents were rated 36% and 53%, respectively.

Similarly, in Nigeria, about 79 and 100 signatures are required to clear a single shipment by the Nigerian Customs Service, which was described as the most corrupt agency in the world (Medda & Caschili, 2015; Sequeira & Djankov, 2014). Corporate policing may help in curbing corruption if shipping corporations can adopt pre-crime intervention strategies to forestall corruption (Hansen, 2018; OECD, 2014). Collective action initiatives program such as the MACN is essential in the anti-corruption agenda to transform the industry.

Governance Structure of Inland Container Depots

The concept of ICDs, also known as dry ports, reflects an extensive view from different perspectives. According to Werikhe and Zhihong (2015), ICDs evolved in the maritime industry from the standpoint of the physical facility, purpose, and function requirements. From a global perspective, ICDs are primary marine facilities available both at seaports and inland locations to effectively decongest the ports (Finke & Kotzab, 2017). Based on the 2011 Almaty Programme of Action Report prepared by the United Nations Economic Commission for Africa, the development of ICDs is necessary because many countries and shipping corporations encounter various supply chain-related barriers such as “landlockedness” (physical isolation) and high costs of trading with the rest of the world (Werikhe & Zhihong, 2015). Given the changes in the shipping industry and marine transportation system, the primary function of ICDs is known for the reduction of the high cost of large quantities of cargo handling through containerization by shipping

corporations (Werikhe & Zhihong, 2015). In Nigeria, ICDs are popular for the delivery of containerized cargos from the sea terminals that create the interface between both inland and sea shipping operations of freight distribution, thereby, allowing shippers to access port services more conveniently close to their locations.

In the Nigerian context, ICDs are essential inland intermodal terminal infrastructure for the onward shipment and outright export of cargo (including containers) from the main seaports to the various parts of the country through applicable modes of transport such as roads and railways. Since the advent of containerized cargos in 1911, the trend from the traditional port-to-port shipment concept has advanced to a total system approach (Okechukwu, 2015). This expansion has stimulated a high rise in the volume of containerized trade in the industry, which has substantially led to the congestion of cargo traffic within the coastal ports (Julius & Odiegwu, 2019; Michael, 2019; Okechukwu, 2015; Okon & Smart, 2018). In 1979, the origin and establishment of the ICD project by the government started in Kano and Kaduna to improve logistics operations for cargo decongestion and to extend ports services to the hinterland (Okechukwu, 2015). This imitative promoted the high efficiency of inland transport in the country and increased the volume of containerized trade to the northern landlocked neighboring countries such as Niger and Chad.

Concession-based PPP management framework for ICDs. Countries in the sub-Sahara region of Africa have embraced reforms, as port infrastructure assets serve a critical role in the global business logistics chain, which has a huge impact on the costs of various imported and exported goods. The principle is that the government’s reforms may

improve the overall efficiency that attracts a reduction in total logistics costs and the enhancement of the competitiveness of the economies of the port-reforming countries (Akinyemi, 2016; Okeke & Kalu, 2019; Onwuegbuchunam, 2020). Since the Nigerian port reform program in 2006, concessions have become the ideal system of privatization in the sector, rather than an outright sale of port infrastructure assets to private investors (Nwanosike et al., 2016). During the year, the government approved the concession contract of six ICDs to private investors who brought significant operational changes to reform the industry (Akinyemi, 2016). The locations of the six ICD projects include Aba (Eastgate Inland Container Terminal Limited), Ibadan (Catamaran Logistics Limited), Kano (Dala Inland Dry Port Limited), Jos (Duncan Maritime Services), Funtua (Equatorial Marine Nigeria Limited), and Maiduguri (Migfo Nigeria Limited).

The primary focus of the government's reform agenda is consistent with the concession of ICDs to restructure the problems induced by the old-path dependence of numerous maritime stakeholders. According to Dominic et al. (2015), dominant issues because of the old-path dependence of stakeholders exist even in the post-reform period. Part of the problems that require urgent attention includes low facility productivity, the inefficiency of cargo handling equipment, delay in cargo delivery, decaying port infrastructure, and inadequate funding (Dominic et al., 2015; Okeke & Kalu, 2019; Okon & Smart, 2018; Onwuegbuchunam, 2020). Other problems relate to uncoordinated security agencies, port congestion, and the government's lethargic procedures in getting approval for projects (Dominic et al., 2015; Salisu & Raji, 2017). The desired outcomes of transforming of the old-path dependence of stakeholders include promoting

competition from neighboring ports, demand for shorter cargo turnaround time, transparent operations and reduction in shipping costs and losses, the fast bureaucratic process for service delivery, and adequate port equipment (Akinyemi, 2016; Okeke & Kalu, 2019; Olusegun, 2020). These positive outcomes of transformation may assist the operational efficiency of the Nigerian ports and reduce the loss of revenue to the government.

From the inception of privatization in the country to date, the government has embarked on selecting the public-private partnership (PPP) governance model for the ICD development under the direct supervision of the NPA. Under the Landlord port model as the overall governance structure for the maritime sector, the government adopted PPP in the administration of the ICD projects, as part of the efforts, to address the gross deficiencies and wide gaps in funding the nation's critical infrastructure (Dominic et al., 2015; Okon & Smart, 2018). The PPP initiative is regarded as a mutual business arrangement between the public and private sector, in which the private sector accepts the offer of port service delivery from the public sector, including the associated risks and receives a reward against the risk (Opawole & Jagboro, 2016). The existing uncertainties in the delivery of concession-based PPP projects relate to revenue, public needs, finance, operations, and other trade risks, while the concessionaires charge premium built into the tariff and pricing structure that is passed on to the consumer (Dominic et al., 2015). To a large extent, the ICD concession-based obligations have assumed efficient service delivery and an optimum degree of cooperation between the government and private investors.

The framework for the evaluation and allocation of contractual obligations between the government and private investors has been helpful substantially in mitigating the risk of failure of the concession-based PPP model for the ICD projects. Despite the issues of accountability and transparency associated with the PPP procurement processes, the initiative of transferring public infrastructure assets to the private sector has yielded a positive result in the maritime sector (Dominic et al., 2015; Ndikom et al., 2019). Analyzing the Togolese PPP port management framework, Augustin and Akossiwa (2018) stated that the government's strategic plan of the deregulation of policies and privatization of the country's port industry had encouraged the operational procedures for ICD development. This plan has strategically allowed the removal of seaport constraints, and promoted hinterland access and economic zone facilitation, which are three main drivers of the project's initiation along the Lome-Ouagadougou CU9 transit corridor (Augustin & Akossiwa, 2018). Through a collaborative approach between the port authority and other critical stakeholders, the Togolese government has succeeded in employing the PPP governance model to strategically minimize the costs of cargo transportation along the CU9 corridor, thereby promoting regional trade in West Africa (Augustin & Akossiwa, 2018). Similarly, the PPP initiative for ports infrastructure delivery remains a reliable, innovative policy tool to sustain concession-based ICD projects in developing countries like Nigeria.

There are various PPP models with different levels of private involvement as regards investment, ownership, and risk transferred by the public sector. According to Nguyen and Notteboom (2017), each PPP model has its advantages and disadvantages

depending on the selected management framework for the project. In a comparative analysis of the management model employed in the East African and Chinese regions, Werikhe and Zhihong (2015) demonstrated the distinctive differences between the PPP models adopted in the two regions. In Kenya and Uganda, the government utilizes the Landlord Port model through the PPP initiative. In contrast, the "Public Port" model, also known as a full port concession, is utilized in the case of China (Werikhe & Zhihong, 2015). Private sector and public sector involvement characterize both models. The differences between both PPP frameworks in these two regions exist at the level of the participation of both sectors regarding ownership and investment. The port authorities for the Mombasa and Malaba dry ports in Kenya and Uganda play the regulatory roles, lease the infrastructure to the private sector, and undertake all supervision, safety, and security functions (Werikhe & Zhihong, 2015). In the "Public Port" model for running the Beijing dry port, the Chinese government hands over total responsibility for port management and operations to the concessionaire for some years (Werikhe & Zhihong, 2015).

The PPP-Landlord framework has notably remained efficient and productive in delivering the port services in the country of which the ICD project is an integral part. Although there are various challenges associated with implementing the model, the financial burden on the Federal Government has significantly reduced because the concessionaires are responsible for both infrastructure development and a yearly payment of the concession lease fees (Salisu & Raji, 2017). Towards overcoming the major shortcomings to enhance productivity, the government has applied the Build-Operate-Transfer (BOT) model as an alternative mode of privatization (Eniola et al., 2014). The

BOT is a field concession-based PPP initiative for the implementation of the ICD facilities across the country (Eniola et al., 2014; Nguyen & Notteboom, 2017). In this type of field concession arrangement, the concessionaire (private investor) receives a concession from the public authority (NPA) to finance, design, construct, operate, and the facility over a specified period (Nguyen & Notteboom, 2017; Salisu & Raji, 2017). In this context, the NPA provides land and grants compensation to the relocated and invests in rail and roads, while the concessionaires develop, operate, and manage the ICD facilities in the country (Nguyen & Notteboom, 2017). At the end of the PPP concession contract, the ownership of the ICDs belongs to the public sector.

In a comparative analysis, other various PPP models in the governance of seaport infrastructure like the ICDs have been applied in many countries of the world. Ullah (2014) stated that the Indian government used the Odisha PPP policy for India's ICDs and logistics hubs to promote industrialization and solve diverse infrastructure deficits in the country. Another famous PPP model used in the country is the Build-Own-Operate-Transfer (BOOT) (Ullah, 2014). In this type of model, the private investor secures the legal title for the land acquired directly while the assets are passed to the government at the end of the concession (Ullah, 2014). Similarly, Neequaye, Huang, Amowine, and Fynn (2018) confirmed the adoption of the BOOT model in both Tema and Takoradi ports of Ghana, where the government created an environment that enables innovation by the private sector. This idea promoted the country's accelerated infrastructure construction to improve value for the investment (Neequaye et al., 2018). In a methodology of comparing concession projects developed in different European transport

sub-sectors, Vanelslander, Chomat, Roumboutsos, and Bonnet (2014) narrated that the central government's contractual arrangement using the BOOT model for the PPP projects. This idea assumed a more finance-driven approach than service-driven through the elements of cofinancing and risk-sharing. PPP models in the governance of ports infrastructure form the foundation for knowledge transfer and a better understanding of the mutual benefits to the parties involved as indicated in Figure 2.

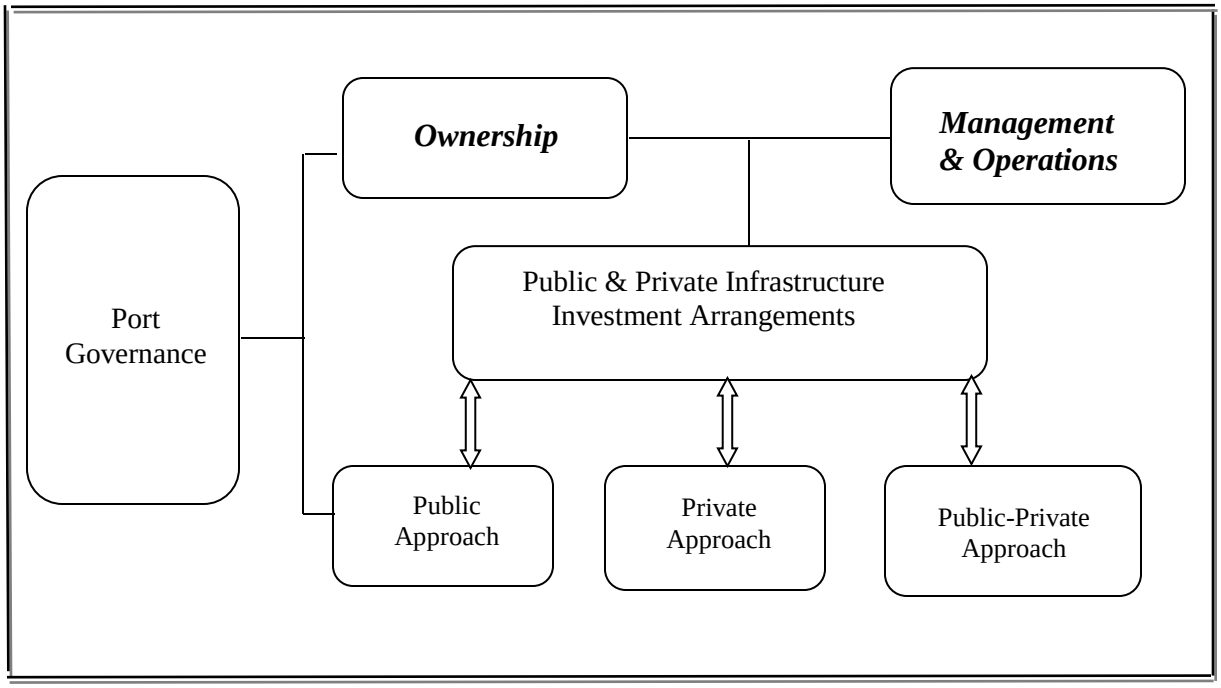


Figure 2. Potential PPP governance models applicable to Nigerian ICD investment

Motivations for PPP models for ICD development. Although there is very little literature on PPP models in the dry port context, the management framework for seaport infrastructure may be applied to the PPP concession models adopted for ICDs. According to the terms of the Infrastructure Concession Regulatory Commission (ICRC, 2013), Dominic et al. (2015) provided three central reasons that stimulate governments to adopt

PPP models for essential infrastructure development, including ICDs. The rationale includes; (a) best utilization of existing resources and efficiency in port services; (b) improvement of the organizational plans and policies that may facilitate transparency and fairness among stakeholders; and (c) reform of the port sector through a reallocation of roles and incentives to improve accountability (Dominic et al., 2015). According to Nguyen and Notteboom (2017), the adoption of the PPP concession model may stimulate two critical goals. These goals include 1) a best-fit strategy for the objectives of significant stakeholders, as well as public actors, a private consortium, and users; 2) a PPP management framework that best manages risk allocation to all parties involved as applied to the service port, tool port, and landlord port (Nguyen & Notteboom, 2017). According to Salisu and Raji (2017), the Nigerian government's deregulation policy has yielded desirable results through the PPP framework for the landlord port model adopted for the maritime sector.

Advantages and shortcomings of the PPP-Landlord model for ICD projects. The performance of the PPP-Landlord port model in Nigeria may be critically examined and analyzed against the performance of the major port infrastructure in the country. Despite weaknesses in certain areas, the model has been more efficient with numerous players who provide services in varied port activities and capacities competitively (Dominic et al., 2015). The advantages of the PPP-Landlord port model include 1) an accelerated process of providing the public infrastructure; 2) a quicker execution and lifecycle cost reduction of facilities enabled by private participation in construction, operation, and maintenance; 3) an enhanced risk allocation and management; and 4)

improved performance and higher efficient use of resources by the private operator (Nguyen & Notteboom, 2017). In a similar comparison, Khiem (2017) stated some advantages of the PPP-Landlord port model adopted in Vietnam. These include the harmonious sharing of profits between the State and private organizations, and improved customer satisfaction resulting from the effects of long-term and stable contracts (Khiem, 2017). These advantages of the PPP concession model are also replicated in the South African and Portuguese devolution of port governance (Caldeirinha, Felício, & da Cunha, 2017; Meyiwa & Chasomeris, 2016). These opportunities associated with the PPP-Landlord port concession model are known to guarantee a quick return on investment for the state budget.

Two key shortcomings are associated with the PPP-Landlord port model in Nigeria. According to Dominic et al. (2015), the issues militating against the model include insufficient legal, regulatory and institutional framework, and the weak capacity and low level of private sector participation in designing, construction, operation, and maintenance of facilities. These issues consequently lead to the risks of cost overrun, low quality of service delivery, and late delivery of contractual obligations by the private sector (Nguyen & Notteboom, 2017). In Vietnam, Khiem (2017) stated the limitation of the port model is caused by the imbalance of interests between the public and private sector, and the restriction of other supporting port services by the central government. Meyiwa and Chasomeris (2016) revealed customers' complaints and concerns over the tariff structure and the manner in South Africa, in which port costs are recovered from them by the concessionaires. This problem has stifled inter-port competition, while

stakeholders' competitiveness in the export markets has been undermined and threatened with low profitability (Meyiwa & Chasomeris, 2016). If properly structured and managed, the PPP-Landlord port model may yield desirable outcomes by balancing the interests of all stakeholders involved.

Path Dependence in Organizational Context

Path dependence has origins consistent with the proposition for explaining institutional changes that have connections to how key actors of organizations make inefficient management choices built up by the unplanned consequences of past decisions and positive feedback processes. Based on the seminal works of Arthur (1989) and David (1985), organizations are also regarded as institutions known to be the carriers of history because they develop incrementally by connecting to their past, the present, and the future. Researchers have agreed to a more social-constructivist perspective on path dependence, which is useful for understanding institutional values, standards, and rules that shape the path of organizations (Cecere, Corrocher, Gossart, & Ozman, 2014). Organizations are characterized by the results of the continuing actions and interactions among various actors with diverging interests in a specific context. The theory of path dependence is based on an actor-centered approach involving heterogeneous players whose divergent interests may produce potential systems effects over time, while their paths may evolve in diverse directions depending on the existing situations (Sorensen, 2015). The role played by these actors' tactics and their power relationships in bringing about or struggling against change in path-dependent processes has become necessary in the analysis of the evolution of the various patterns of organizational changes.

Path-dependent processes can be perceived as complex courses of action that are characterized by three interrelated concepts: lock-in, contingency, critical juncture, and self-reinforcing mechanisms. Under a path-dependent system, lock-in refers to an irreversible situation where actors are trapped in a specific course of management action (Arthur, 1989; David, 1985). These players strive to break out of lock-in for a solution despite available alternatives and force themselves to rely on a dominant institutional arrangement because they have lost their leeway to shape the current path (Coenen, Moodysson, & Martin, 2015; Sydow & Schreyogg, 2015). A phase of contingency evolves following the stage of lock-in, where historical developments of corporations are open, and future outcomes of players' interests are unpredictable (Sorensen, 2015; Sydow & Schreyogg, 2015). The significance of contingency exists when there are choice points of a specific historical event of management intentions and behaviors occurring out of multiple likely alternatives (Sorensen, 2015; Sydow & Schreyogg, 2015). Based on a process perspective, the choice points are more likely to have enduring consequences of the critical actor's political compromises, power struggles, or impositions in the path-dependent process.

During path-dependence processes, a critical juncture occurs as a shift between the stage of contingency and the stage of lock-in. Critical junctures occur when the current political and institutional structures in the organization fail because of the loss of governance ability and legality to yield solutions to urgent management issues (Sorensen, 2015; Sydow & Schreyogg, 2015). There is the likelihood that players' management choices may affect the outcome of organizational interest because path-dependent effects

have become weaker, leaving actors with more leeway (Peinert, 2018). Alternative courses of action may appear, creating chances for actors to perform more significant roles in creating new arrangements to reshape the existing institutions (Sorensen, 2015; Sydow & Schreyogg, 2015). Exogenous forces and novel institutional arrangements such as new technology or a changing economic environment often trigger the emergence of such changes leading to the creation of a new pathway (Coenen et al., 2015). Researchers on path creation recognized that deviating from the old path may lead to counter-reactions (Peinert, 2018; Sorensen, 2015; Sydow & Schreyogg, 2015). The analysis of how these alternative paths evolve and how players control the various courses of action, is important to management leaders, mainly when old policies and ideas no longer work, and novel solutions need to be created.

Self-reinforcing mechanisms of path-dependence processes represent the core concept that drives the course of an organizational path in the main direction that is already pursued. Scholars acknowledged from the most relevant literature of management as to the theoretical and empirical perspectives of self-reinforcing processes necessary for managerial decision making in organizations (Abatecola, 2014; Onufrey & Bergek, 2015; Peinert, 2018; Sydow & Schreyogg, 2015). Self-reinforcing processes relate to a harmonized effect in which actors and policymakers at various levels of organizations accumulate experience and learning to strengthen the current course of a management action further. In a qualitative approach, Abatecola (2014) conducted an explorative analysis of the opportunities associated with the understanding of self-reinforcing processes in managerial decision making in organizational settings. With a focus on the

phases of organizational evolution (i.e., from birth to growth, maturity, and decline), self-reinforcing processes resulting from either exogenous or endogenous factors cause CEOs and top management teams to jump into an alternative organizational path through co-evolving heuristics to address management problems (Abatecola, 2014). Self-reinforcing processes are critical to the co-evolutionary management approach to organizational change.

Path Dependence in Port Governance

Institutional approaches to port development exist in literature in demonstrating that port governance is a complex issue. Several relationships between ports, societies, and governments evolved significantly since the late 1990s (Sanchez & Pinto, 2015). The distinction is that port governance remains inseparable from various phases in history, cultures, and geography, while different arrangements of political, economic, and administrative institutional settings became dominant in separate spatial and sequential combinations (Monios & Wilmsmeier, 2016; Olukoju, 2020; Sanchez & Pinto, 2015). The key peculiarity is that port enterprise is path-dependent, heavily controlled by past actions and institutional design, but also reliant, about private and public planning and investment (Notteboom et al., 2013; Wilmsmeier, Monios, & Perez-Salas, 2014; Wiradanti, Pettit, Potter, & Abouarghoub, 2018). Despite the efforts of port authorities to apply generic governance solutions to maritime issues, dominant local or regional institutional characteristics remain as the determinants of port governance arrangements (Notteboom et al., 2013; Olukoju, 2020). Such institutional characteristics evolve from certain routines of organizations, which may be obsolete because of exogenous

developments around the firms. Likely developments could be the appearance of new competitors, new legislation, changing economic conditions, or shifting political preferences (Michael, 2019; Notteboom et al., 2013; Olukoju, 2020; Wiradanti et al., 2018). A need exists for port authorities and maritime organizations to develop new routines to cope with these external challenges.

While actors of port governance find new routines to cope with external pressures to force organizations to change their path, they need to establish a common understanding of roles and mutual relationships. Actors need to overcome specific barriers to their choice of the new organizational path; these include set of laws and regulations alongside social discourses about the role, function, and future of the organizations (Notteboom et al., 2013; Olukoju, 2020; Wiradanti et al., 2018). While port development is path-dependent, Notteboom and Yang (2017) stated that port authorities could implement port devolution to enhance their governance reform programs by the process of "institutional plasticity." Institutional plasticity refers to a flexible and dynamic transformational situation where the government and other port-related actors thrive in extending existing institutional arrangements through planned actions without necessarily breaking out of the existing governance path (Notteboom et al., 2013). Actors can embark on institutional transformations in port governance that can be applied along with three different modes such as conversion, layering, and stretching (Notteboom & Yang, 2017; Panayides, Parola, & Lam, 2015). According to Fraser and Notteboom (2015), port authorities may modify existing management rules (conversion), incorporate a few new procedures (layering) or apply a little flexibility (stretching) in their quest of

an appropriate organizational fit to reach a more significant institutional equilibrium path. These modes of transformation are necessary for accommodating innovative management behavior for adopting new organizational routines in the port industry.

Institutional plasticity in the port governance framework is critical to enabling maritime stakeholders to succeed in the rapidly changing social and economic port environment. Layering occurs in institutional transformations when the key governance players introduce and grant new policies, procedures, functions, and approvals to the existing institutions and institutional arrangements (Huo, Zhang, & Chen, 2018; Michael, 2019; Notteboom & Yang, 2017). As demonstrated with both Rotterdam and Antwerp Port Authorities in 2004, layering has enhanced the development of an effective hinterland investment strategy by stretching new institutional arrangements to modify the existing institutional structure (Notteboom et al., 2013). In the corporatization of the enterprise's financial revenues, the government introduced an autonomous holding company to the port authority while granting the executives an unprecedented higher decision-making power to invest outside the municipal borders (Notteboom et al., 2013). This initiative introducing layering became a basis for successful decision-making through independently operating port authorities with little municipal involvement in the corporatization of the enterprise's financial revenues (Huo et al., 2018; Monios & Wilmsmeier, 2016; Notteboom & Yang, 2017).

Institutional plasticity, through conversion, is not only crucial for the port authorities but also at the level of the chosen governance structures for finding new routines for institutional transformations in port devolution. According to Notteboom and

Yang (2017), conversion refers to the situation when port authorities alter and redeploy old or existing institutions to serve new management purposes or functions. The incorporation of a new layer may entail discarding previous layers, while the current institutions and arrangements are realigned with no new rules or procedures added in other cases of conversion (Lavissiere, 2018; Monios & Wilmsmeier, 2016; Notteboom et al., 2013). The process of conversion is an essential institutional plasticity for supporting the creation of a more detailed typology of potential trajectories in seaports administration to achieve positive outcomes.

A process of institutional stretching occurs when actors seek alternative institutional arrangements to contain further organizational routines necessary for port authorities to manage new challenges (Michael, 2019; Monios & Wilmsmeier, 2016; Notteboom & Yang, 2017). In the analysis provided by Notteboom et al. (2013), there is a distinction in the process of the institutional stretching between the governance structures of the Rotterdam and Antwerp Ports. The public port authority of Rotterdam (PoR) allowed separate revenue corporatization holding from the Mainport Holding Rotterdam by removing all informal institutional constraints for public investment and participation (Notteboom et al., 2013). In the case of Antwerp, the port authority was limited by the provisions of the port policies to engage in port regionalization strategies in the revenue corporatization process (Notteboom et al., 2013). The two cases are an indication that institutional plasticity is critical to achieving an organization change if actors can stretch existing institutional arrangements. In another dimension, Wilmsmeier et al. (2014) applied the concept of institutional plasticity to port growth, stating that,

while port governance is path-dependent, the port authority develops new capabilities to adapt to the changing industry and turbulent institutional conditions. Wilmsmeier and Sanchez (2017) also applied the concept of institutional plasticity to investigate how institutional structures created by Chilean port reform evolved since the 1990s and whether the structures might be appropriate to manage future devolution and changes in the system. Through the institutional capacity at both the local and national level, the port authority actors stretched existing institutional arrangements for a decentralized governance structure to overcome the barriers to change (Lavissiere, 2018; Monios & Wilmsmeier, 2016; Wilmsmeier & Sanchez, 2017). In the rapidly changing market environment in the Nigerian port industry, developing new and transformative capacities is essential for critical players to overcome the exogenous influences and other factors that may tend to constrain the evolutionary economic path of institutions.

Old-Path Dependence in the Management of Nigerian ICDs

From an organizational perspective, path dependence is referred to as the categories of the historical effects of the choices or decisions taken by corporations in the past, present, and future. The Nigerian maritime industry is an entity that has evolved through various historical technological and economic paths from the perspective of its massive revenue generation through the numerous public and private organizations in the sector (Badejo & Solaja, 2017). The country's port enterprise can be perceived as path-dependent congruent with the social-constructivist principles of business strategies that have become increasingly essential for international trade and competition (Sydow & Schreyogg, 2015). Based on the seminal work of Arthur (1989) and David (1985), the

port industry is characterized by the influence of endogenous dynamics of human activities in creating and sustaining technological and economic innovations and institutional paths necessary to tackle numerous management challenges in the sector. According to Ruttan (1959) and Williamson (1991), a vital factor in understanding organizational innovation and economic growth in an industry like the maritime is through Schumpeter's research. Within the path dependence perspective, Schumpeter's work is grounded on how innovation stimulates growth through new products, novel methods of construction, new sources of supply, utilization of new markets, and new ways of organizing business (Ruttan, 1959; Williamson, 1991). The Schumpeterian ideology remains consistent with understanding the historical paths of industry innovation leading to the creation of ICD infrastructure, which is shaped by dependence to shift to new paths for economic growth (Ruttan, 1959; Williamson, 1991). The Schumpeterian principle is pivotal for the institutional transformation responsible for the emergence of the ICDs to improve shipping productivity toward increasing revenue generation by the port sector.

A significant institutional factor to recognize is Nigeria's ability to advance an attractive ICD development capable of stimulating competition and enhancing the transition to competitive markets with the neighboring ports. Despite the emergence of the six ICD facilities across different locations in the country as part of the government's privatization initiative to improve port performance and efficiency, the Nigerian maritime sector is still facing institutional problems (BSR, 2016; Michael, 2019; NAN, 2016; Ships & Ports, 2017). From the perspective of history, corporate culture, and employee

competences in the sector, there is evidence of old-path dependence in which primary stakeholders rely on past knowledge and principles to conduct businesses in cargo shipments (Lavissiere, 2018; Monios & Wilmsmeier, 2016; Olukoju, 2020; Skellern et al., 2017; Wilmsmeier & Monios, 2016). A specific critical area where old-path dependence has adverse effects on ICD development across the country is the total project abandonment resulting from poor infrastructure and inefficient policy framework of the government (Hansen, 2018; Igbokwe, 2016; Michael, 2019; Okon, 2018a; Okon, 2018b). This problem is attributable to one of the massive potential sources of revenue leakages and losses to the government (Akuki, 2016; Anumihe, 2016a; Igbokwe, 2016; Ojadi & Walters, 2015). Cargo inflow, also known as cargo throughput, was reduced from 53.7 million tonnes in 2014 to 5.6 million tonnes in 2016 because of poor transportation infrastructure connection to the ICD facilities (Okon, 2018a; Okon, 2018b). This particular historical path in the industry is consistent with the shifts in the roles and behavior of various stakeholders who resist change, thereby, making coordination of planned initiatives difficult to achieve.

The problem of old-path dependence continues increasingly to impose institutional change affecting government revenue, economic development, and social welfare in the port sector. According to the proponents of path dependence, institutions sometimes pose as obstacles to innovation, but some researchers in recent studies established that institutions can both obstruct and sustain innovation (Arthur, 1989; David, 1985; Olukoju, 2020; Peinert, 2018; Sorensen, 2015; Sydow & Schreyogg, 2015). The problem of old-path dependence attributed to the roles and behavior of various

stakeholders who resist change remains intrinsic with the central propositions of the theory of path dependence which is characterized by four interrelated concepts of contingency, lock-in, critical juncture, and self-reinforcing mechanisms (Peinert, 2018; Sorensen, 2015; Sydow & Schreyogg, 2015). These four concepts are indicative of a pre-formation, path creation, path dependence (where lock-in occurs), and lastly, a path decay phase (Fraser & Notteboom, 2015). In the last phase of path dependence (path decay), there exists a loss of impetus or drive and an ending final path of the institution (Fraser & Notteboom, 2015). Applicable to the ICD management context in Nigeria, this last phase may be attributed to eventualities such as an increase in external competition among players, the final desertion of a specific path resulting from a lock-in condition (Ojadi & Walters, 2015). A typical example occurs when players are locked or trapped in one particular behavioral path because of corruption by extorting money for personal gains and take undue advantage of others (Ojadi & Walters, 2015; Zhang et al., 2018). A "mindful deviation" to a possible new path is necessary for players to break from old institutional arrangements and management practices (Gill & Williams, 2014; Jeevan et al., 2018; Nguyen & Notteboom, 2017; Olukoju, 2020; Wiradanti et al., 2018). This approach of "mindful deviation" may allow players to overcome resistance to institutional change through planned and conscious actions to reframe their thinking toward the new path.

In the government's privatization program through the PPP initiative, the ICD facilities are developed by maritime-based players known as the port operators or concessionaires. Other critical stakeholders of the project are the Federal Ministry of

Transportation, NPA, Nigerian Shippers' Council (NSC), Nigeria Customs Service (NCS), Nigerian Railway Corporation (NRC) (Kangereha, 2018). These numerous stakeholders have a collective responsibility to advance the integration between the country's gateway ports and the hinterland through the ICD project to relieve seaport constraints, promote hinterland access for economic performance (Nguyen & Notteboom, 2016; Okon, 2018a; Okon, 2018b). In a contrary perception, Akinyemi (2016) claimed that the presence of multiple government agencies remains a potential cause for the delay in cargo clearance, promotion of corrupt corporate practices, and hindrances to trade facilitation. Old-path dependence in the management of ICDs in the Nigerian port industry can be categorized under three administrative elements which stunt economic growth resulting from the massive revenue leakages through various actors (Akuki, 2016; Anumihe, 2016a; BSR, 2014; Eme et al., 2015; Igbokwe, 2016; Ojadi & Walters, 2015). The three administrative elements are weak enforcement practices, ill-defined standards operating procedures, and a lack of coordination among critical maritime stakeholders characterize the old-path dependence of leaders of corporate governance initiatives (BSR, 2016; NAN, 2016). At the organizational level, the persistence of these elements among the majority of stakeholders involved suggests the rationalization for pervasive corrupt practices arising from the weak internal ethics infrastructure in port agencies (Akinyemi, 2016; BSR, 2014; Hansen, 2018; Michael, 2019; Olusegun, 2020). A need exists to change this behavioral path of critical actors to advance ICD projects for promoting hinterland access for freight trade to boost economic performance.

Based on the propositions of the path dependence theory, the three administrative elements of weak enforcement practices, ill-defined standards operating procedures, and a lack of coordination contingency characterize the historical path of the Nigerian maritime institution. There is the evidence of the four phases of the path dependence theory in which the restriction imposed by the historical institutional path relating to the behavioral patterns and customs of critical stakeholder (economic and political) continuously disrupt the current shared path (Liang & Ma, 2017; Monios & Wilmsmeier, 2016). These key players of the project stay on the path of management activities in which the phases of contingency, lock-in, critical juncture, and self-reinforcing mechanisms remain consistent with the endogenous events that serve as the contributing factors for breaking the shared path to create a new one (Aaltonen et al., 2017; Skellern et al., 2017). If maritime organizations are not capable of alternative options, they carry the risk of inefficiency because of the deprivation of different internal or external situations that necessitate new solutions (Monios & Wilmsmeier, 2016; Sydow & Schreyogg, 2015). Shifting into an alternative institutional path may be important for change for port agencies to avoid being locked into past solutions continuously.

Weak enforcement of maritime corporate governance. The historical event of weak enforcement practices is an example where actors of the ICD project become locked-into using outdated corporate maritime laws while sanctions are absent to serve as a deterrent to law offenders (BSR, 2014; Igbokwe, 2015). The enforcement of existing provisions and sanctions remains ineffective when the enforcement environment for stakeholders is weak (Anele, 2018; BSR, 2014). Similarly, Owusu Kwateng, Donkoh,

and Muntaka (2017) presented a comparative analysis of the Boankra Inland Port of Ghana, where a lock-in situation was underscored by the inability of the public and policymakers to comply adequately with the transport policy for corporate port governance. This problem, because of stakeholders' lock-in situation into a definite path, resulted in several challenges that culminated in the lack of government commitment, insufficiency of expertise, lack of rail infrastructure, and land ownership or tenure system (Owusu Kwateng et al., 2017). The need to switch over to a new institutional path exists if critical players in policy-making can gain more knowledge about maritime laws and adhere strictly to their enforcement for effective corporate maritime governance.

Ill-defined standards operating procedures. Specific to the maritime sector, ill-defined standards operating procedures relating to the poor systemizing of all processes and documentation necessary to complete cargo and ship activities in and out of the country. Certain players such as port agency employees remain in the lock-in situation by holding broad discretionary powers and sometimes create a delay in the processing of documents for standard logistics and supply chain operations (BSR, 2014; Zhang et al., 2018). These players use their influence to encourage corrupt practices as there is a lack of transparency without repercussions in the design and implementation of standards operating procedures for running the ICD facilities (BSR, 2014; Nwekeaku & Atteh, 2016). Based on the part of the propositions of path dependence that is related to the managerial inefficiencies coming from the past, maritime players cannot still learn for future experiences despite their past knowledge of poor standardization of the rules and operational procedures in cargo clearance processes (BSR, 2014; Lavissiere, 2018;

Wiradanti et al., 2018). Key actors like the Nigerian Customs use their discretionary powers to cause delays through the poor systemizing of all processes and documentation involved in essential cargo clearance (BSR, 2014). This problem also affects the freight billing system, documentation, and delivery processes because of the lack of proper streamlining and computerization, leading to port congestion (BSR, 2014; Gidado, 2015; Michael, 2019; Nguyen & Notteboom, 2016; Somuyiwa & Ogundele, 2015).

In a comparative analysis of competitiveness between the seaports of the North and West African Countries, Abbes (2015) blamed port congestion on the extended time required for cargo clearance by the Customs because of the bureaucratic and burdensome paperwork involved. Some agencies and parastatals of government in the Nigerian ports such as Standards Organization of Nigeria (SON) and Nigeria Customs operate outside their regulatory policies and mandate and create delays without standardized operating procedures (Ships & Ports, 2016). The defiant actions of these agencies, as a result of corruption characterized by breaches of statutes, create confusion for port users that ranks the Nigerian ports as most congested, expensive, and unfriendly in sub-Saharan Africa (Michael, 2019; Ships & Ports, 2016; Ugoani, 2015). While the port organizations lose potential actions for operational transformations because path dependence limits them, success is desirable through a reinforcing mechanism (Fraser & Notteboom, 2015; Gidado, 2015; Michael, 2019; Olukoju, 2020). According to the BSR (2014), a deterministic agenda is also necessary for the Nigerian port actors through self-reinforcing effects for effective operation and management of ICDs.

Lack of adequate coordination among maritime stakeholders. Local

stakeholder port organizations, including government agencies, create participatory working groups by conducting regular meetings and setting the agenda for meeting the administrative goals of ICDs across the country. Despite the action plans to initiate a successful governance transformation process within the system, there is evidence of inadequate coordination among the critical project stakeholders because their past actions and decisions continuously lead to a dependent path (BSR, 2014; Chircop et al., 2016; Ojadi & Walters, 2015; Okon, 2018c). Although, there is an existing participatory process indicating compliance with primary governance strategies, the decisions taken by leaders do not represent the collective opinions of other stakeholders and experts for implementing the ICD project (Aburto et al., 2017; Okon, 2018c). An example of such problem exists in the Coastal and Inland Shipping (Cabotage) Act implementation in which players are locked-in in a definite path and resist change creating the leeway for corrupt management practices (Abayomi, 2016; Igbokwe, 2015; Nwokedi, Addah, Nnadozie, Friday, & Joseph, 2018). This problem of poor stakeholder collaboration resulting in underutilizing the Cabotage Act implementation persists despite the provisions of the Act to discourage resource mismanagement among private port operators, indigenous shipowners, shipbuilders, repairers, and financial institutions (Nwekeaku & Atteh, 2016).

In the analysis of the institutional reform of West and Central Africa (WCA) ports, Barnes-Dabban et al. (2017) narrated the absence of adequate involvement between the economic actors and civil society groups in enacting corporate policies for dealing with port environmental reforms of the Abidjan, Douala, Lagos, and Tema ports. While

the critical players encountered lock-in situations leading to increased marine and port environment risks that threatened economic development, it became impossible for them to head towards alternative options to cope with the challenge (Barnes-Dabban et al., 2017; Zhang et al., 2018). Based on the suggestion of Bolman and Deal (2013), effective stakeholder collaboration is essential when actors engage in strategic planning and management meetings to reduce tensions in port administrations and enhance positive changes that may discourage corrupt management practices.

CGIs for Sustainable ICD Project

Historically, corruption has been a prominent element in the Nigerian port industry. Specific drivers of port congestion in the sector are linked to corruption; these are awkward cargo approval processes, excessive discretionary powers of actors, weak controls, and poor governance by port leaders (Adonye et al., 2019; BSR, 2014; BSR, 2016; Lloyd et al., 2019; Michael, 2019; Taylor & Benderson, 2017). According to the assertions of Van Leeuwen (2015) and Van Schoor and Luetge (2017), the ever-increasing problem of corrupt financial practices in the global maritime sector has necessitated the need for CGIs by industry leaders to curb their adverse effects on the economy, environment, and society. Many researchers from a wide range of disciplines have investigated the mechanisms and contexts of corruption, and how it might be controlled in the port sector (Donwa, Mgbame, & Julius, 2015; Eleagu & Akonye, 2018; Eski & Buijt, 2016; Sequeira & Djankov, 2014; Somuyiwa, & Ogundele, 2015; Suarez-Aleman, Sarriera, Serebrisky, & Trujillo, 2016). In an explicit assessment conducted by Transparency International, Grey (2016) highlighted that 75% of people from the public

indicated that corruption risks increased between 2015 and 2016, particularly in the port sector because of legal, political, and behavioral factors that enable corruption to thrive without consequences. In the 2013 Corruption Risk Assessment report prepared by TUGAR, Ugoani (2015) revealed that various corrupt practices relating to demand for bribes and the collection of sundry illegal fees characterized four major ports in Nigeria. In the analysis, 74 signatures were requisite to berth a ship in Port Harcourt Port, while 142 signatures were mandatory before a ship could berth in the Lagos Port (Ugoani, 2015). Unlike the port of Denmark, only one signature is required for a vessel to berth (Ugoani, 2015). When arriving or leaving Nigerian ports, captains of shipping companies still face the problems of harassment, long and expensive delays, and other issues if they fail to make facilitation payments (Alkali & Imam, 2016; BSR, 2016; Eleagu & Akonye, 2018;). This challenge has continuously affected the freight billing system, documentation, and delivery processes with delay leading to port congestion (BSR, 2014; Gidado, 2015; Michael, 2019; Somuyiwa, & Ogundele, 2015). A need exists to increase transparency and accountability among critical stakeholders to facilitate the anti-corruption agenda for port performance and efficiency.

The growing problem of port congestion stemming from corruption continues to affect shippers and the private investors handling the ICD facilities across the country. The drivers of corruption in the port sector are path-dependent because they are a pivotal point of historical development relating to the economic evolution and process of the industry (Fraser & Notteboom, 2015; Lavissiere, 2018; Olukoju, 2020). Historically, part of the problems confronting northern shippers includes burdensome customs clearance

procedures, a multiplicity of security agencies at seaports, and additional cargo handling costs leading to persistent congestion at the seaports (Nguyen & Notteboom, 2016). From another perspective, managing cargo flows between ports and inland destinations remains a challenge for terminal operators because of the long delay of cargo clearance and high inland transport costs through the roads and rail (Nze, Ogwude, Nnadi, & Ibe, 2016). Delay, stemming from bribery and corruption, leads to high costs for shippers as it increases shippers' pressure for cargo delivery on time (Nze et al., 2016). The drivers of corruption have a connection to the three elements of old-path dependence, which underscore corruption as the most critical challenge facing the country's port sector (Alkali & Imam, 2016). Researchers have cited the ICDs of other developing nations such as Malaysia, Ghana, and Kenya where there are cases of path-dependent challenges which have negative impacts on terminal operators, ship owners, shipping agents, freight forwarders, and customers (Balla et al., 2016; Jeevan, Chen, & Lee, 2015; Monyocho & Theuri, 2017). These critical stakeholders find it difficult to cope with these challenges as they impact on the operational efficiency of the ICD infrastructure in the nations' port systems (Owusu Kwateng et al., 2017). Strategic collective action may be necessary to tackle the problem of corruption associated with the ICD supply chains and logistics networks to improve the overall competitiveness of the port industry.

According to Van Leeuwen (2015) and Van Schoor and Luetge (2017), CGIs are necessary to tackle the drivers of port congestion linked to corruption, which underscore the path-dependent elements among the actors of the Nigerian port sector. By raising awareness and engagement to improve the external environment where the actors are

operating, CGIs may be applied to restructure the governance framework, management style, and investment portfolio of ICDs to boost the nation's economy and accelerate industry growth and development (Afolabi, 2015; Igbokwe, 2015; Okon, 2018a; Okon, 2018c; Ships & Ports, 2017). In other African ports like Douala and Cameroon, scholars have quantitatively assessed the perception of cargo dwell time linked to corruption, which impedes shipping trade (Medda & Caschili, 2015). Consistent with path-dependent behaviors of actors, delay in cargo clearance increases the risk and the cost of conducting business in many African seaports (Medda & Caschili, 2015). CGIs, such as MACN, serve as a strategic collective commitment of potential stakeholders to curb old-path dependence that is consistent with the wide-spread corruption in the sector (BSR, 2014; BSR, 2016; Van Schoor & Luetge, 2017).

Gap in the Literature

In analyzing the 2003 UNCTAD report on African ports reform, Trujillo, Gonzalez, and Jimenez (2013) found that the corruption level in African ports is quite high despite the widely embraced landlord port governance structure proven to be the most efficient and valued port management model in the continent. Similarly, Quazi, Vemuri, and Soliman (2014) agreed that corruption is path-dependent and has become a significant determinant of the economic performance of African ports. Contrasting with developed countries such as Latin America and the Caribbean, the authorities adopted the landlord model in the privatization of their port operations in which path-dependent behaviors characterized by corruption and monopolies of power seem persistent in the port governance reforms (Seabra, Flores, & Gomes, 2016; Wilmsmeier & Monios, 2016).

The introduction of CGIs such as MACN, in which companies both in the private and public sectors join forces to tackle the problem of corruption in the Nigerian port sector, have not been in the focus of research so far (Van Schoor & Luetge, 2017). Also, the introduction of MACN has not yielded the desired results for change in the Nigerian maritime industry (BSR, 2014; BSR, 2016; Hansen, 2018).

From another perspective, Somuyiwa and Ogundele (2015) emphasized Adesina (2016) and Albert and Okoli (2016) on various governments' reform agenda not conforming to the assumption of the positive correlation between CGIs and sustainable economic growth anticipated of infrastructure development such as the ICDs across Nigeria. Despite the introduction of MACN, the increasing rate of path-dependent behaviors of maritime actors underscored by corruption stemming from excessive discretionary powers delayed cargo clearance, and port congestion resulting in the neglect of ICD facilities indicates a gap in the existing literature.

A limited review of the theoretical and empirical literature on the link between the inefficiency of CGIs (MACN) and sustainable economic growth, by Lund-Thomsen, Poulsen, and Ackrill (2016) and Van Schoor and Luetge (2017) also highlighted the gaps in the existing literature. According to Lund-Thomsen et al. (2016), the empirical literature on the research focus is deficient of a robust theoretical foundation. The studies differed from one another, with even the constructs of CGIs (MACN) that have not yielded the desired results for a transformative change in the Nigerian maritime industry. While providing valuable insights into the link between CGIs and sustainable economic growth, these resources have many drawbacks. A good number of empirical studies

focused on strategic collective stakeholder participation gaps in maritime, even though the port sector is only one of the several dimensions of lack of adequate stakeholder collaboration.

Another drawback is the lack of channeling the explanation of how CGIs may be useful for the overall port reform with the adopted landlord port model, through adequate legal, regulatory, and institutional framework to promote the sustainability of ICD facilities. Despite the advent of MACN, which is nascent in Nigeria, shipping companies and seafarers still find themselves under pressure to facilitate payments because of unnecessary delays and bureaucracies associated with high port costs by the Customs (Lund-Thomsen et al., 2016). This critical challenge is path-dependent that is responsible for the compromise of anti-corruption policies leading to the abandonment of the ICD project by the private investors (Fraser & Notteboom, 2015; Nguyen & Notteboom, 2017; Okon, 2018a; Okon, 2018b).

Collaborative arrangement through MACN, consisting of either purely private or public-private initiatives, may be necessary to focus on how to tackle path-dependent corporate corrupt practices more broadly at the ports (Hough, 2017). The MACN's concept of the anti-corruption initiative is based on three central mainstays called the 3C: Capacity building, Collective action, and Culture of integrity (BSR, 2014; BSR, 2016; Van Schoor & Luetge, 2017). These central mainstays encapsulate five equivocal areas or elements of corporate governance practices in which consensus-based viewpoints among port actors, is necessary to produce proactive solutions. These five areas relate to: (a) congestion of cargo traffic within the port environment (Adonye et al., 2019; BSR, 2014;

Gidado, 2015; Michael, 2019; Nguyen & Notteboom, 2016; Okechukwu, 2015; Olusegun, 2020; Salisu & Raji, 2017; Somuyiwa & Ogundele, 2015); (b) interests of stakeholders including shippers, port workers, concessionaires, and contractors (Akinyemi, 2016; Dooms et al., 2013; Fraser & Notteboom, 2015; Kenyon et al., 2018); (c) compliance with maritime laws and policies (Anele, 2018; Benson & David, 2018; BSR, 2014; BSR, 2016; Chircop et al., 2016; Dike & Giniwa, 2019; Igbokwe, 2015); (d) multiplicity of corporate governance codes (Ajibo & Ajibo, 2019; Ojogbo & Nwano, 2019; Okike et al., 2015; Osemeke & Adegbite, 2016; Osemwengie et al., 2019); and (e) port physical assets or infrastructure (Dominic et al., 2015; Kenyon et al., 2018; Okeke & Kalu, 2019; Onwuegbuchunam, 2020; Opawole & Jagboro, 2016; Parola et al., 2015).

The gap in the literature on the topic of restructuring old-path dependence in ICDs in the Nigerian maritime industry is that consensus as to the desirability, feasibility, and importance of the identified elements is lacking. The categorization of these five elements of corporate governance practices appears in Table 2. This study might narrow this gap and contribute to knowledge by providing consensus-based viewpoints regarding the desirability, feasibility, and importance of these elements. Through the MACN initiative, there is the need for the convergence of opinions of key port actors to strengthen anti-corruption management practices and programs embedded in good governance practices that would yield the desired benefits (BSR, 2014; BSR, 2016). If industry leaders fail to accomplish transformative change through government-sponsored interventions, sustainable revenue generation through the nation’s ICD facilities is at risk (Akuki, 2016; Anumihe, 2016b).

Table 2

Reviewed Resources: Categorization of Equivocal Five Elements of Corporate Governance Practices

Sources	Five equivocal areas of corporate governance practices demanding solutions that are desirable, feasible, and important
(Adonye et al., 2019; BSR, 2014; Gidado, 2015; Michael, 2019; Nguyen & Notteboom, 2016; Okechukwu, 2015; Olusegun, 2020; Salisu & Raji, 2017; Somuyiwa & Ogundele, 2015).	Congestion of cargo traffic within the port environment.
(Akinyemi, 2016; Dooms et al., 2013; Fraser & Notteboom, 2015; Kenyon et al., 2018).	Interests of stakeholders including (a) shippers, (b) port workers, (c) concessionaires, and (d) contractors.
(Anele, 2018; Benson & David, 2018; BSR, 2014; BSR, 2016; Chircop et al., 2016; Dike & Giniwa, 2019; Igbokwe, 2015).	Compliance with maritime laws and policies
(Ajibo & Ajibo, 2019; Ojogbo & Nwano, 2019; Okike et al., 2015; Osemeke & Adegbite, 2016; Osemwengie et al., 2019).	Multiplicity of corporate governance codes that cause reduced compliance by firms and ineffective enforceability by maritime regulatory agencies.
(Dominic et al., 2015; Kenyon et al., 2018; Okeke & Kalu, 2019; Onwuegbuchunam, 2020; Opawole & Jagboro, 2016; Parola et al., 2015).	Port physical assets or infrastructure

Literature Related to the Methodology and Design

The qualitative approach and Delphi study design were employed in conducting this study. As Peterson (2017) pointed out, the selection of a research method and design should be consistent with a process that is appropriate for conducting the study. The objective of this qualitative classical Delphi study was to determine how a panel of Nigerian maritime industry experts view the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of

the management of ICDs into a sustainable enterprise. The current literature supports the use of the qualitative method and classical Delphi design for studies that involved the need to explore and identify the nature and fundamental elements of a phenomenon (Avella, 2016; Brady, 2015; Patton, 2015). Delphi is considered to be a qualitative research design because the purpose of the research is primarily to seek experts' judgments and opinions where the use of inferential statistical techniques such as mean tests will not be justified (Habibi, Sarafrazi, & Izadyar, 2014).

The use of the Delphi design was also consistent with prior studies of governance practices in the maritime industry. Focusing on the rapid change in the tropical systems of the Tanzanian Zanzibar coast, Huge et al., (2018) used the Delphi design to identify the innovative governance and management strategies necessary for the current state of the island's coastal systems alongside the probable and desirable scenarios for the future. Rahman and Saifullah (2016) used an explorative Delphi design to determine the governance efficacy of container scanning system (CSS) at the sea and land port locations in Bangladesh towards delineating between the present and future economic growth prospect for the country. In another study, Lekakou and Remoundos (2015) used the Delphi design to identify the views of stakeholders and experts, both in the short and long terms, on the key elements and factors required to restructure the Greece coaster transport governance sustainably.

The Delphi design is further classified into Classical/Conventional Delphi, Modified Delphi, Decision Making Delphi, Policy Delphi, and eDelphi or Real-Time Delphi (Arof, 2015; Avella, 2016). In the Classical/Conventional Delphi approach,

iterative rounds of data collection are employed involving panels of experts knowledgeable in a given topic area for forecasting or building consensus to arrive at a decision (De Loe, Melnychuk, Murray, & Plummer, 2016; Von der Gracht, 2008). The Modified Delphi is appropriate where the researcher does not need to ask the expert panel to generate answers to the round 1 question(s). Rather, the initial answers to the question(s) are collected through some other ways, such as a saturated review of the academic and practitioner literature, and presented to the panel to begin the consensus-seeking process (De Loe et al., 2016; McBride, 2015). When decision-makers, based on a hierarchical position and levels of expertise within an organizational setting, are involved in the panel, the Decision-Making Delphi is appropriate for coordinating experts' thinking thereby, creating reality to arrive at carefully considered decisions for the future (Von der Gracht, 2008). The Policy Delphi is useful for generating opposing opinions on policy and general resolutions from the insights and consensus of a group of experts (De Loe et al., 2016; Meskell, Murphy, Shaw, & Casey, 2014). The literature and prior studies reviewed in this section are supportive of the selection of the qualitative method and classical Delphi design for this study.

The selection of other methodologies, such as the case study, is appropriate when studying complex contemporary phenomena in natural settings by using multiple sources of evidence to conduct an empirical investigation in a bounded view of a particularistic phenomenon (Lewis, 2015). According to Yazan (2015), the case study approach is consistent with answering "how" and "why" questions when the behavior of the study participants cannot be manipulated, and when the study boundaries are not clear between

the phenomenon and context. Barnes-Dabban et al. (2017) used the exploratory case study design approach to explore how port authorities implemented environmental reforms and management processes in four different West and Central Africa ports of Abidjan (Ivory Coast), Douala (Cameroon), Lagos (Nigeria) and Tema (Ghana). Using a conceptual framework grounded in the ecological modernization theory, Barnes-Dabban et al. (2017) discussed the various governance mechanisms necessary for addressing prevailing environmental risks and the dynamics influencing environmental reform in the ports. Through the application of relevant port management models reinforced by the ecological modernization theory, three strategic approaches became dominant in addressing environmental risks (Barnes-Dabban et al., 2017). These approaches included changing the role of port authorities from the bureaucratic to flexible and decentralized, increasing participation of economic actors, and shifting for nongovernmental or civil society organizations (Barnes-Dabban et al., 2017).

In a similar context, Fraser and Notteboom (2015) employed the case study design to provide a holistic qualitative analysis of how government agencies and authorities were implementing current institutional reforms of the Southern African ports. The unit of analysis selected involved the container ports of Maputo, Durban, Port Elizabeth, Cape Town, Walvis Bay, Port Louis, and Toamasina in which the assessment of governance structures revealed the extent of institutional positioning for port development in Southern Africa (Fraser & Notteboom, 2015). The conceptual framework, underpinned by port institutional theory, became the basis for analyzing the institutional path development and the variation between a range of North European and

Southern African container ports towards determining port productivity improvements (Fraser & Notteboom, 2015).

Meyiwa and Chasomeris (2016) also employed the case study design to explore the imbalances and inadequacies associated with South Africa's historical maritime governance relating to port pricing and port operations. Through the subsisting port development framework in ports price regulation, and the promotion of equity of access to ports facilities and services, content analysis of qualitative data collected through in-depth interviews, became the dominant approach to analyzing qualitative data of emerging themes from responses provided by respondents (Meyiwa & Chasomeris, 2016). Consistent with various stakeholders' concerns and opinions, recommendations for port governance based on the themes, formed the basis for the improved South African port policies, legislation, and regulatory requirements (Meyiwa & Chasomeris, 2016). More details on the rationale for selecting the classical Delphi design for this study over the case study design and other available designs are included in Chapter 3.

Summary and Conclusions

This chapter included the discussion of the three primary administrative elements of pervasive old-path dependence that were associated with five equivocal areas of corporate governance practices in which change or solutions were desirable, feasible, and important in the Nigerian maritime industry. These elements were identified as they emerged from the literature review of this study. Consistent with path-dependent characteristics exhibited by port actors, these three administrative elements are weak enforcement practices, ill-defined standards operating procedures, and a lack of effective

coordination in the sector (BSR, 2016; NAN, 2016; Van Schoor & Luetge, 2017). The elements were considered to serve as barriers to effective corporate governance practices in the nation's port industry. Table 2 includes the five equivocal areas of corporate governance practices underscored by these three administrative elements that have been discovered in the review, thus framing Round 1 of the data collection protocols.

From the reviewed resources, some scholars supported with evidence, that the persistence of dysfunctional corporate governance practices and the consequent rent-seeking behaviors of actors resisting reforms are path-dependent in the maritime industry (Fraser & Notteboom, 2016; Medda & Caschili, 2015). Such actions, stemming from corrupt corporate practices, have both economic and social consequences as they impose a high cost on maritime agencies and create barriers to trade and development that could be enabled by the ICDs to other parts of the country (BSR, 2014; BSR, 2016; Medda & Caschili, 2015; Ojadi & Walters, 2015; Van Schoor & Luetge, 2017). According to the assertions of Van Leeuwen (2015) and Van Schoor and Luetge (2017), the ever-increasing problem of corrupt financial practices in the global maritime sector has necessitated the need for CGIs such as MACN by industry leaders to curb their adverse effects on the economy, environment, and society.

Other scholars made some contradictory findings in that some drivers of port congestion, which are also path-dependent, could be used as tools to stimulate shipping business interactions (Benderson, 2016; Ugoani, 2015). Linked to the administrative elements of old-path dependence in the sector, the drivers of port congestion such as facilitation payments and discretionary powers of actors, are acceptable to avoid cargo

delays and the consequent demurrage payment by importers (Eleagu & Akonye, 2018; Lund-Thomsen et al., 2016; Sequeira & Djankov, 2014). According to Benderson (2016), most shipping companies may stimulate facilitation payments and gifts to pilots, port captains, and port state control officers to avoid their ships detained at the ports for an indefinite period. Despite compromising corporate anti-corruption policies, shipping companies and seafarers find themselves under pressure to make such payments, which in another way, promotes port decongestion (Sequeira & Djankov, 2014).

In the view of dealing with the identified path-dependent elements, government leaders remain puzzled as to how they can utilize the collective action of CGIs to reduce collusive corruption practices, which stimulate tariff evasion in cargo clearance operations between shippers and agencies like the Customs (Fraser & Notteboom, 2016; Sequeira & Djankov, 2014). This trend portends negative implications for ICDs because tariff evasion remains a potential source of revenue leakages that makes the facilities unprofitable to the government, leading to the abandonment of the project (Nguyen & Notteboom, 2017; Okon, 2018a; Okon, 2018b). Contrary to employing CGIs, some scholars suggested the need for block-chain-enabled solutions to reduce the risk of corruption-related issues in cargo clearance at the ports (Gausdal, Czachorowski, & Solesvik, 2018; Wang, Han, & Beynon-Davies, 2018). The blockchain is a useful governance approach that is important for dealing with path-dependent congestion characterized by corruption and to address the inefficiencies associated with the payment and documentation systems in port operations (Gausdal et al., 2018; Wang, et al., 2018).

The gap in the literature on the topic of restructuring old-path dependence in the management of ICDs in the Nigerian maritime industry is that consensus as to the desirability, feasibility, and importance of effective corporate governance practices is lacking. The lack of consensus in this regard might have been the cause of the inefficacy of CGIs in the port sector because of the persistent rent-seeking behaviors of actors leading to the abandonment of the ICD facilities across the country. CGIs may serve as a reliable alternative to strengthen corporate governance practices and curb old-path dependence that is associated with the widespread corruption among practitioners in the sector. While the current literature has many success stories of CGIs in developed countries, the full potential of CGIs such as the MACN in curbing old-path dependence in the Nigerian port sector, has not been realized. The underutilization of this potential is mostly due to the gap in the literature on how path-dependent characteristics are addressed in management practice and how CGIs create social value. This study is indicative of how this gap might be narrowed and contributes to knowledge by understanding expert viewpoints as to the desirability, feasibility, and importance of the corporate governance practices for successfully transforming the old-path dependence of the management of ICDs in the port sector. The following chapter, Chapter 3, contains the rationale for an explanation of the research design and methodology for understanding the viewpoints among a panel of maritime industry experts as to desirable, feasible, and important corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The use of a qualitative method, particularly a classified Delphi methodology, was justified. The

chapter also covers the role of the researcher, participant selection, instrumentation, issues of trustworthiness, and data collection and analysis.

Chapter 3: Research Method

The purpose of this qualitative classical Delphi study was to determine how a panel of 25 Nigerian maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The sample size obtained for the study was 25. The social problem addressed in this qualitative classical Delphi study is the introduction of CGIs has not yielded the desired results for change in the Nigerian maritime industry (BSR, 2016; Hansen, 2018). The findings of the study might contribute towards creating positive social change in the direction of providing further the trajectory of breaking path-dependent behaviors among these critical stakeholders through the sector-specific CGIs (like MACN) for transforming the concession of ICDs for increased economic growth in Nigeria. This initiative might attract a host of economic benefits to the society such as job creation, export promotion, diversification of the economy, and increased foreign exchange earnings (Benson & David, 2018; Elisha, 2019; Omoke et al., 2015a; Onwuegbuchunam et al., 2017). The findings of this study might also be useful in contributing to the literature and fill a gap as to how curbing path-dependent behaviors consistent with widespread corruption among the stakeholders can sustain the government's port governance and reforms.

This chapter contains five sections that explain different aspects of the methodology adopted for the study. These sections comprise the description of the rationale for selecting the specific research tradition and design. Also, the role of the researcher in conducting the study, the population and participant selection strategy, data

collection instruments, explanation of data collection, and data analysis strategy are described. Then, discussions related to the challenges of the research method, ethical and trustworthiness issues including measures for confidentiality, desirability, feasibility, importance, and privacy of the participants, and matters relating to researcher biases are analyzed in detail. The chapter ends with a summary and transition into Chapter 4.

Research Design and Rationale

The following section contains a description of the research method and design that were employed and how they were most appropriate for this study. The following research questions were to guide the study. There were one primary research question and three sub-questions.

RQ1: How does a panel of Nigerian maritime industry experts view the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

SQ1: How does a panel of Nigerian maritime industry experts view the desirability of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

SQ2: How does a panel of Nigerian maritime industry experts view the feasibility of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

SQ3: How does a panel of Nigerian maritime industry experts view the importance of desirable and feasible corporate governance practices for successfully

transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

The research method and design for the study were qualitative with a classical Delphi design. The method and design were based on the complexity of the research problem, the desire or need for a forward-looking solution, and the requirement of flexibility in the design. The study was qualitative because it was grounded in two basic elements that differentiate qualitative research.

Appropriateness of the qualitative method. Based on the considerations consistent with philosophical underpinnings, the complexity of the problem, and possible outcomes, the qualitative research method was employed as best suited for the current study. The qualitative method was premised on an in-depth inductive approach to gaining unique perspectives on the inefficacy of the introduction of CGIs (like MACN) that had served as a major barrier to yielding the desired transformational results for economic growth (Linstone & Turoff, 2002). Based on the study's conceptual framework, the research questions, and the scholarly literature, opinions of experts were necessary to develop potential solutions for a problem that persists (Miles, Huberman, & Saldana, 2014). Since the issue of the inefficacy of the introduction of CGIs continues to exist in the maritime industry without a solution, the current study was future-oriented and premised on the knowledge, experience, and guidance of experts. The nature of the study required a qualitative approach to the problem to gain a better understanding of how sector-specific corporate governance practices could be used for successfully

transforming the old-path dependence of the management of ICDs into a sustainable enterprise.

Appropriateness of the Delphi design. The origins and tradition of the Delphi approach evolved as a research design by Dalkey and Helmer (1963) of the Rand Corporation under the U.S. government contract to forecast possible outcomes from nuclear weapons usage in the war in the 1950s. The purpose of the project was to solicit expert opinion on the selection of the best possible U.S. industrial target system and the judgment of the number of A-bombs necessary to decrease the weapons' output by a prescribed amount (Dalkey & Helmer, 1963). The Delphi approach evolved as a research design by the need for individual predictions from knowledge and speculations, and group discussions where participants could voice their opinions and ultimately reach consensus (Avella, 2016; Dalkey & Helmer, 1963). In this particular scenario for the study, Skulmoski et al. (2007) recommended the Delphi design becomes applicable when there is the need to reduce solutions to difficult problems to individual components because there may be limited resources to bring experts together while there may also be deficiency or dysfunction in the communication exchange outlets among them. In application, the Delphi design also became suitable because the maritime experts in the panel had the opportunity to assess long-term industry issues because they possessed limited evidence of the phenomenon associated with little overlap in opposing views, while there were scholar-practitioner gaps, and nonavailability of model-based statistical options (Hsu & Sandford, 2007; Skulmoski et al., 2007).

The Delphi design entailed the subjective perceptions and opinions of panelists and the formulation of a list of statements measured for agreement or disagreement, which was derived from the opinions of expert panel members (Brady, 2015). The Delphi methodology was consistent with the purpose of the study, which was to build consensus regarding the elements of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise (Heitner et al., 2013).

From a philosophical perspective, the Delphi design was a constructivist and epistemological approach that involved the contribution of multiple realities in the research objective (Davidson, 2013; Linstone & Turoff, 2002). A key element of the study was to ask the Delphi expert panel to consider past and present issues about maritime corporate governance practices while designing solutions for the future (Davidson, 2013). The Delphi design was also consistent with the constructivist ontological approach, where it had become necessary to seek or build consensus among experts. The epistemological backgrounds were relevant, where the panelists needed to reach a consensus on providing forward-looking solutions (Linstone & Turoff, 2002).

In situations in which a complex management problem requires desirable solutions that are not yet in existence, the Delphi design is considered appropriate (Linstone & Turoff, 2002; Skulmoski et al., 2007). The persistence of the inability of maritime actors to break away from old-path dependence in the administration and operations of ICDs was complex (Afolabi, 2015; Akinyemi, 2016; BSR, 2016; Van Schoor & Luetge, 2017). The persistence of rent-seeking behaviors stemming from

corrupt corporate practices of maritime actors resisting reforms was complex (BSR, 2014; BSR, 2016; Hansen, 2018; Medda & Caschili, 2015; Michael, 2019; Ojadi & Walters, 2015; Van Schoor & Luetge, 2017). CGIs such as MACN had not yielded the desired results for change in the Nigerian maritime industry (BSR, 2016; Hansen, 2018). The Delphi design was best appropriate to address the complex nature of the research problem. The design was also useful in exploring the inefficacy of the introduction of sector-specific CGIs (like MACN) that served as a major barrier to yielding the desired transformational results for economic growth (Linstone & Turoff, 2002; Skulmoski et al., 2007). The classical Delphi design was preferred to other types of Delphi because the topic of forward-looking corporate practices for port governance was underserved in the literature, negating the possibility of drawing upon a list of saturated solutions from the literature and employing a modified Delphi approach (Skulmoski et al., 2007).

Other qualitative designs considered. The selection of the most appropriate research design for conducting a qualitative study is dependent on the research question based on the understanding of several of the qualitative research designs such as grounded theory, ethnography, and case study (Patton, 2015). Each of these designs has a specific purpose, procedures, and challenges (Lewis, 2015; Patton, 2015). Their main differences lie in the research focus, type of research problem to be addressed, methods of data collection, and strategies for data analysis (Lewis, 2015).

Applying a grounded theory design supports moving beyond the description of phenomena to generating or discovering a theory in which process the theory development emanates from the participants who have experienced the process by

explaining practice or providing a framework for future research (Birks & Mills, 2015). A grounded theory design was not appropriate for this Delphi study because the intent in the study was not to develop a theory as a conceptual framework used for guiding the study was in place. The topic of forward-looking corporate practices for port governance was consistent with problem identification and prioritization, forecasting, and concept or framework developments. The emphasis was to focus on selected maritime experts, their expertise, and anonymity to one another, and their achieved consensus on a list of important solutions identified in the study phenomenon (Linstone & Turoff, 2002; Skulmoski et al., 2007).

An ethnography design involves the observation, description, and interpretation the researcher provides to the day-to-day living pattern and behavior of a group of people or participants (Berthod, Grothe-Hammer, & Sydow, 2017). There are two primary rudimentary features of ethnography that are available to the researcher (Lewis, 2015). These features refer to the critical examination of the research process that takes place in the natural setting. Also, the researcher must be wary of how the process of the research activity is conducted and interpreted by the culture-sharing group under investigation (Lewis, 2015). The ethnography research design was not suitable for this Delphi study because the topic of forward-looking corporate practices for port governance did not deal with the social behavior of a group, and did not require the researcher observing or interacting with subjects within the study environment. The Delphi study rather dealt with how the expert knowledge of panelists could be useful in assessing the long-term industry problem of the old-path dependence of the management of ICDs, and bring

transformational change to the maritime sector through sector-specific corporate governance practices (Hsu & Sandford, 2007; Skulmoski et al., 2007).

The qualitative case study design is useful for researchers to study complex contemporary phenomena within their natural context in a much broader view of conducting an empirical investigation using multiple sources of evidence (Lewis, 2015). Researchers often consider using the case study design when the objective of the study is to answer "how" and "why" questions, when the behavior of the participants cannot be manipulated, and when the study boundaries are not clear between the phenomenon and context (Yazan, 2015). The case study design was not appropriate for this study because the intent of the study was not to explore the antecedents of how and why corrupt practices were occurring. The intent in this Delphi study was to explore forward-looking corporate practices for port governance, which were aggregated and shared after iterative survey rounds (Hsu & Sandford, 2007; Skulmoski et al., 2007).

Role of the Researcher

The role of the researcher is vital to data collection in a qualitative study. In this classical Delphi design research approach, the researcher's significant roles included recognizing and forestalling any potential biases on the chosen research topic (Marshall & Rossman, 2015). My functions as the Delphi design researcher involved a twofold approach. These included functioning both as the planner or facilitator, and the recorder of the internal process auditing of the back-and-forth communication between me and the expert panel members (Avella, 2016). In planning this study, my primary tasks included identifying the discipline, number, and content of groups, and establishing the method

and procedures of communication (Avella, 2016; Heiko, 2012). I determined which groups of maritime experts possessed the professional interest in achieving the study purpose, which formed the basis of providing those groups who met the expert panel criteria for the study (Diamond et al., 2014). During the process, I avoided the temptation to select members of a group who were mere "representative" of the discipline involved (Avella, 2016). Expertise in the discipline was the key factor of considering those participants who could respond knowledgeably from the position of the group to which they belonged in the Nigerian maritime sector (Avella, 2016; Von der Gracht, 2008).

In this Delphi process, I was the primary instrument of data collection (Avella, 2016; Linstone & Turoff, 2002; Von der Gracht, 2008). In such a study scenario in which an incomplete knowledge and no accurate answers to addressing the specific problem were available to the participants, maintaining participants' feedback and confidentiality of responses throughout the survey rounds was necessary (Avella, 2016; Skulmoski et al., 2007). The circumstances of the Delphi process warranted keeping the panel members isolated from one another to allow the freedom of expression without pressure or influence (Brady, 2015; Hsu & Sandford, 2007). I gathered the results of the initial question(s) (feedback), which were protected, consolidated, and then returned to the panel members in a series of iterations (rounds) until a consensus was reached (Avella, 2016; Brady, 2015).

Handling researcher biases was another critical point of consideration during the data collection process. Based on my prior knowledge in the port construction management field, there was awareness as to how top port managers in the government

agencies and leaders in shipping organizations behave in manners that prioritize their power over group goals (Dooms et al., 2013; Fraser & Notteboom, 2015; Sequeira & Djankov, 2014). My biases could have influenced the approach to the study because of my knowledge about how port practitioners use their different levels of discretionary powers, influence, and opportunities at the detriment of the industry, leading to the neglect of essential maritime infrastructures. Potential participants from the maritime agencies might have declined to divulge information about their organizations and industry practices because they formed part of the research phenomenon, and they might tend to provide divergent responses.

My biases were managed in four ways. First, I divulged and delineated the assumptions, limitations, and delimitations of this study in Chapter 1. Second, I crafted the overall research purpose in such a manner not intended to validate my personal opinions or perceptions. Third, I upheld integrity with the literature and ascertained that several resources reinforced the development of the proposed elements of port corporate governance practices. Fourth, I did not conduct the study within my work environment to avoid sharing the results of the data collection and analysis with the panelists during each round of the Delphi study process.

Methodology

The choice of research methodology has a vital role in the dependability of a study. In this chapter, the overview of the research design in this qualitative Delphi study was explored as to the elements of forward-looking port corporate governance practices and the restructuring strategies to successfully transform old-path dependence of the

management of ICD facilities to accelerate industry growth and boost Nigeria's economy. In this manner, the description of the methodology used for the study's data collection and analysis might assist future researchers in arriving at similar findings by replicating the methodology. In this specific context, arriving at similar study findings was useful in replicating the methodology of transformative elements of forward-looking strategies, which were significant to the analysis of the data over successive rounds. The findings were associated with the use of descriptive statistics for measuring the existence of consensus and the convergence of expert opinions in support of answering the research question (Skulmoski et al., 2007; Von der Gracht, 2008). This section contains the discussions of the classical Delphi methodology adopted for participant selection, data collection, and data analysis.

Participant Selection Logic

The selection of the population and participants for any research project depends on the specific purpose statement and the research questions for the study. The inclusion of heterogeneous experts is necessary for areas where they qualify to address the phenomenon under examination from multiple perspectives (Ogbeifun, Mbohwa, & Pretorius, 2017). The current study involved two population sources in gaining a diverse set of perspectives from the experts who possessed relevant information on the research problem (Ogbeifun et al., 2017). The specific or target population sources for the study were experts who were maritime Scholars and maritime Professionals. The expert panel was selected based on their background experience or knowledge in shipping operations and port governance practices, and research services in the maritime sector. Expert panel

members had the independence of providing vital information about the research phenomenon, unlike practitioners or employees from maritime government agencies who might decline to divulge information about their organizations and practices.

Maritime scholars comprised the experts who were versed in the history and evolution of port development, administration, and governance in the industry. Maritime professionals comprised experts who possessed vast knowledge and experience in port planning, shipping operations, and logistics, and laws and regulations guiding port governance in the industry. The NSC is a network of maritime port practitioners, including scholars and legal professionals, with approximately 2,375 members nationwide covering a wide range of relevant port stakeholders in the country.

Sampling strategy. Before the data collection process, purposive sampling was employed as a nonprobability sampling strategy (Emerson, 2015; Prak & Wivatvanit, 2018). The selection of the participants was in a nonrandom manner because they were not intended to represent the general population (Shariff, 2015; Skulmoski et al., 2007). The participants were selected to provide expert opinions based on their professional ability to answer the research questions by providing vital information and applying their expert knowledge to the research problem under investigation based on stated eligibility criteria (Skulmoski et al., 2007). The participants self-selected against stated eligibility criteria. A purposive sample of 25 participants was recruited among independent industry experts at the NSC, which is a maritime association comprising of port practitioners, including scholars and professionals. These participants were known to possess expert knowledge about the research topic.

As a supplemental sampling strategy, the snowball sampling was employed to recruit subsequent participants in case there was the need to increase the number of expert panel members who satisfied the eligibility requirements and agreed to participate in the study (Habibi et al., 2014; Heitner et al., 2013; Prak & Wivatvanit, 2018; Von der Gracht, 2008). Based on the recommendation by already selected panel members, the participant selection process, consistent with eligibility criteria, continued until the required sample size was achieved. This method was helpful to access further, well-informed potential participants not known to the researcher (Shariff, 2015).

Criteria for participant selection. The inclusion criteria for participating in the survey referred to the stated characteristics that the potential participants possessed to participate in the study. From the identified participants who were maritime scholars and maritime Professionals in the industry, the potential panel members needed to meet one or more of the following inclusion criteria: a) maritime scholar, an individual who offers research services in the maritime sector with at least 5 published research papers demonstrating scholarly knowledge and experience in the Nigerian maritime governance practices. The expert must express willingness to participate and devote sufficient time commitment during the survey rounds; b) maritime professional, an individual who is well versed with five or more years of experience in the aspects of various laws and regulations guiding the industry, including the specifics and the core of problems about port governance. The expert must express a willingness to participate and devote adequate time commitment during the survey rounds. All panelists who met one or more of the stated inclusion criteria signified by self-selecting and indicated that they could

provide the necessary information towards addressing the research questions through the self-select pane in SurveyMonkey.

Recruitment

The NSC is a reputable maritime association with a total number of 2,375 members nationwide who were potential participants for the study comprising of maritime scholars and maritime professionals. The total population of members was large enough for achieving anonymity among the potential survey participants from which the sample size was drawn. The intended sample size was 25 expert panelists. Through purposive sampling strategy, 25 participants who were maritime scholars and maritime professionals from the industry meeting all the selection criteria were identified. For this study, the conservative assumption of a 0.013%-member recruitment rate (30 members) was used, which signified that there were more than enough potential participants available to meet the target sample size of 25 and covered potential attrition. While anticipating the attrition of expert panel members withdrawing from the study, drawing the intended sample size of 25 participants was achieved from the population of maritime Scholars and maritime Professionals (Shariff, 2015; Trevelyan & Robinson, 2015). According to Hsu and Sandford (2007) and Von der Gracht (2008), substantial variability exists regarding panel size, with most researchers recommending between 10 and 15 panelists. The intended sample size of 25 expert panelists was considered to be sufficient to achieve and justify data saturation in Round 1 (Hsu & Sandford, 2007; Shariff, 2015; Von der Gracht, 2008). This estimated sample size was adequate to determine the level of agreement or consensus after the four iterative rounds of data collection for the study and

withstood the range of panelist attrition rates of 20 to 30% reported by Bardecki (1984) and still exceeded the ranges of 10 to 15 panelists reported by Hsu and Sanford, and Von der Gracht.

Participants were identified, contacted, and recruited through the group owners of the NSC. A letter, seeking permission from the group owners, was written to recruit potential participants who formed the expert panel for the study. The NSC is a professional association having a large network with a sufficiency of 2,375 members nationwide. The panel members were subject matter experts in the field, and there was no intention to be asking them questions about the specifics of the internal operation of the maritime organizations or business interests where they were employed. With the permission of the group owners, personal contact information, including nonbusiness email addresses of the participants (panelists), were collected for posting invitations and contacting them during the Delphi rounds. The informed consent form was sent to the participants through their email addresses. Each panelist agreed to participate in the study.

Contact with the selected potential participants was carried out only after a formal approval was granted from the Institutional Review Board of the Walden University (Walden University IRB). The first basic step in the participant selection process was to obtain the written consent of the NSC. From an ethical perspective, it was essential to obtain informed consent from the study participants through a letter containing the explanation of the key features of the study and the outline of the general issues that were necessary to be addressed in the iterative rounds of the survey (Avella, 2016; Skulmoski

et al., 2007). Also, understanding the gatekeepers' opinions of the maritime association was critical for discussing and retaining access and sustaining the integrity and credibility of the study (NIH, 2008; Patton, 2015).

Before starting the data collection, the SurveyMonkey targeted audience collector tool was employed to recruit and select audiences with the panelists. The study announcement was created in SurveyMonkey, including the same information as informed consent form and criteria for participation and self-selection of participants except for the information about confidentiality and anonymity. The study announcement contained the contact information of the researcher and the information that potential participants could recruit other potential participants for the study. The date for the start of the survey and the link to the survey was provided in the announcement. The study announcement on the participants' email tab included a notice for potential participants to email the researcher of their interests and eligibility to be a participant. All participants remained anonymous to one another as they were assigned with a unique personal identifier known only to the researcher. The participants' personal information and responses provided were kept confidential at all times.

Instrumentation

The development of Delphi survey instruments, data collection, and administration of questionnaires were interconnected between iterative rounds (Brady, 2015; Hsu & Sandford, 2007; Shariff, 2015). Instrumentation began with a survey questionnaire that was administered to the selected panelists during the data collection process. According to Reiman, Thorborg, Covington, Cook, and Holmich (2017), the

design of the Delphi survey instrument would depend on the number of questions that the researcher intends to ask the panelists. As there were no clear rules for designing the survey instrument, the number of port corporate governance practice issues under determination reflected the intricacy of the research problem and the type of data collected (Reiman et al., 2017). In this classical Delphi study, different survey instruments were designed and administered to solicit information about the research topic from the expert panel members in four separate rounds. The survey instruments were distributed through SurveyMonkey. The data solicited represented the knowledge, perception, or experience of the panelists (Brady, 2015; Sekayi & Kennedy, 2017; Skulmoski et al., 2007).

Round 1 survey. The Delphi data collection process began with an open-ended questionnaire in Round 1 based on the study's central concepts of maritime corporate governance practices that evolved from the literature review (Brady, 2015; Sekayi & Kennedy, 2017; Skulmoski et al., 2007). The Round 1 survey questions served as open-ended brainstorming on the research topic or problem, and the result of the brainstorming involved a list of solution statements from the panelists (Brady, 2015; Hsu & Sandford, 2007; Sekayi, & Kennedy, 2017). According to Peterson (2017), the Round 1 questionnaire was crafted based on the literature review, field test, and the feedback from the dissertation committee members. The questions in the survey instrument (Appendix A) served to identify a broad range of responses, including soliciting as many opinions as possible from panelists as to the transformative elements of forward-looking corporate port governance practices (Skulmoski et al., 2007). The structuring of the questions was

not in a way, implying an answer or not properly allowing diverse participant views of the problem (Brady, 2015; Sekayi & Kennedy, 2017). Clear, concise, and unambiguous questions were formulated, including providing clear instructions for the participants (Brady, 2015; Sekayi & Kennedy, 2017; Skulmoski et al., 2007). After the collection of all participant responses, The results were tabulated, and a list of transformative elements for port corporate governance practices was created based on how often and where each element appeared on the submissions to provide the panel the general clue of their collective judgment (Avella, 2016; Brady, 2015).

Round 2 survey. The Round 2 survey was formulated based on the analysis of the panelists' responses or statements from the Round 1 survey. Reiman et al. (2017) stated that the purpose of the survey is to allow the panelists to appraise the groupings or categorizations of responses from Round 1. The groupings of statements were organized for each of the transformative elements necessary for port corporate governance practices. During this stage, the participants had the opportunity to offer narrative comments on each statement which were either incorporated into the statement or, developed into a new statement if there were variations in the narrative comments, without detracting the meaning of the old statements retained from Round1 (Sekayi, & Kennedy, 2017). The statements were presented to the panelists to rate the desirability and feasibility of the transformative elements using a 5-point Likert-scale (Avella, 2016; Brady, 2015; Heitner et al., 2013; Shariff, 2015; Skulmoski et al., 2007; Von der Gracht, 2012). Desirability related to the forward-looking solutions as transformative elements necessary for port corporate governance practices (Linstone & Turoff, 2002). The ratings

of the 5-point Likert scale measuring desirability ranged from: (a) 1 = very undesirable, (b) 2 = undesirable, (c) 3 = neutral or no opinion, (d) 4 = desirable, and (e) 5 = very desirable (Avella, 2016; Brady, 2015; Linstone & Turoff, 2002; Meskell et al., 2014; Von der Gracht, 2012). Feasibility referred to how practicable the forward-looking solutions as transformative elements for port corporate governance practices would be to implement (Avella, 2016; Brady, 2015; Linstone & Turoff, 2002). The ratings of the 5-point Likert scale measuring feasibility ranged from: (a) 1 = very unfeasible, (b) 2 = unfeasible, (c) 3 = neutral or no opinion, (d) 4 = feasible, and (e) 5 = very feasible (Avella, 2016; Brady, 2015; Linstone & Turoff, 2002; Meskell et al., 2014; Von der Gracht, 2012).

Round 3 survey. Round 3 survey was developed based on the results of the Round 2 survey following the level of agreement of the desirability and feasibility of the statements of transformative elements rated by the panelists. The results of Round 2 were analyzed, and the report of the analysis was shared with the panelists. This report contained the controlled feedback containing the summary of the Likert-type questionnaire responses rather than allowing panelists to communicate directly with one another (Sekayi, & Kennedy, 2017). During this process, participants selected their top five preferred solution items. Participants ranked their preferred items in order of highest to the lowest preference for importance. Importance referred to the forward-looking solutions that took priority as the most relevant opportunities for transforming port corporate governance practices (Linstone & Turoff, 2002; Meskell et al., 2014). The ranking order ranged from one for the highest ranking to five for the lowest ranking, with

higher ranking numbers indicating greater importance (Meskell et al., 2014; Skulmoski et al., 2007). Higher weights corresponded to higher preference of the solution items: (a) ranking 1 = weight of 5, (b) ranking 2 = weight of 4, (c) ranking 3 = weight of 3, (d) ranking 4 = weight of 2, and (e) ranking 5 = weight of 1. The items with the largest average ranking scores were the panelists' most preferred solutions to end Round 3.

Round 4 survey. Round 4 survey was developed based on the results of the Round 3 survey following the level of agreement of the panelists' ranking of importance of the statements of transformative elements. The results of Round 3 were analyzed, and the report of the analysis was shared with the panelists. The list of items presented in the Round 4 report represented the findings of the study, which was, all forward-looking solutions deemed desirable and feasible and ranked by order of importance. This report contained the controlled feedback including the summary of the Likert-type questionnaire responses rather than allowing panelists to communicate directly with one another (Sekayi, & Kennedy, 2017). In Round 4, the panelists were asked to rate their confidence in the overall findings of the study as a measure of self-reported credibility. Data were measured by calculating the frequencies in percentages and the median scores of statements of elements for confidence scales. Consensus was measured based on the frequency percentages and median scores for the top two ratings of confidence of "Very Confident" and "Confident" (Linstone & Turoff, 2002; Meskell et al., 2014; Von der Gracht, 2012).

Field Test

Commonly in Delphi studies, the researcher needs to prepare the Round 1 survey questionnaire for guiding the data collection towards addressing the topic of the study (Davies, Martin, & Foxcroft, 2016). Conducting a field test in this Delphi study served as a means to ensure the face validity of instructions and the Round 1 survey. The purpose of the study in the Round 1 survey was clear, instructions in the questionnaire were easy to follow, and questions were concise, unambiguous, and the survey on SurveyMonkey was fully operational for completion and export capability (Skinner, Nelson, Chin, & Land, 2015). In the process, the study's Round 1 questionnaire was confirmed to had been written appropriately and devoid of any glitches before transmitting it to the selected field participants as contained in Appendix A. The language or the content validity of the questionnaire was evaluated by presenting the instrument to the selected participants for the field test to receive their comments and feedback before distribution to the panelists for the main study (Davies et al., 2016).

The field-testing had two distinctive objectives: (a) to identify likely clarity issues in the instructions to participants as regards the Round 1 survey questionnaire; and (b) to detect potential clarity problems or ambiguities in the questions to participants contained in the Round 1 questionnaire (Skinner et al., 2015). One of the main strengths of the survey instrument (questionnaire) was the ability to take advantage of expert knowledge about the topic of the study (Skinner et al., 2015). Three participants were adequate for the field test to establish the content validity of the study (Day & Bobeva, 2005). The field test participants were experts who possessed a background in Delphi research and

cognate knowledge of port corporate governance practices. The field test participants comprised the following characteristics (a) researchers who have applied the Delphi design to a wide variety of industry situations as an expert approach to solving problems; (b) key maritime actors and practitioners with at least five years of industry business experience and cognate knowledge of port corporate governance practices. These characteristics conformed to the recommendations of Habibi et al. (2014) regarding the eligibility criteria necessary for participation in the main Delphi study. A range of measures to support the trustworthiness of the field test results included member checking, thick description, an audit trail, and a reflexive journal (Avella, 2016; Brady, 2015; Neuer Colburn, Grothaus, Hays, & Milliken, 2016).

The procedures for the field test started with the Delphi Round 1 survey questionnaire. The field test questions were crafted based on the elements of port corporate governance practices distilled from the literature review. The questionnaire was emailed to three field test participants who had background knowledge about the topic of the study and the content of the survey. During the field-testing process, the selected field test participants were asked to provide their feedback based on the following three statements that were encapsulated in the objectives of a field test:

Q1. Is there any likelihood that the questions on the questionnaire may generate useful information to answer the research question based on the purpose of the study and research questions? Are there any other questions or topics that should be covered to address the purpose of the study and the research questions?

Q2. Is there any likelihood that the participants may find the crafting of any of the questions on the questionnaire objectionable? If yes, why? What changes could be recommended?

Q3. Are any of the questions on the questionnaire difficult to understand? If yes, why? What changes could be recommended?

The wordings of the survey questions did not need any necessary revisions as the field test participants did not indicate any concerns for ambiguities before sending the Round 1 questionnaire to study panelists. The field test did not need IRB approval because the selected experts did not have to provide data as only feedback on the quality of the questionnaire content was necessary. The field test occurred before the IRB approval of the Round 1 instrument.

Procedures for Recruitment, Participation, and Data Collection

The process of data collection, starting with the recruitment of the participants, commenced after the formal approval of the Round 1 instrument by the Walden University IRB. The participants for this study were recruited by approaching the group owners of the NSC with a proposal to conduct the study. A formal letter seeking permission from the group owners was necessary before making contact with the participants. The requirement for the soundness of a Delphi study is consistent with the selection of qualified experts (Avella, 2016; Brady, 2015). Through purposive sampling strategy, maritime scholars and maritime professionals were recruited with the permission of the group owners of the maritime association. A formal letter of cooperation and authorization was obtained from the maritime association before the IRB

process to prove that there was the privilege to approach potential study participants. Establishing the qualification or inclusion criteria for participant selection was essential; those stated criteria were applied to recruit eligible panel members for the study.

The procedure for recruiting participants started with creating an account for the survey with SurveyMonkey and collecting personal contact information including nonbusiness email addresses of participants for posting invitations and contacting them during the Delphi rounds. The email addresses were linked to the created survey questionnaire in SurveyMonkey. Also, the informed consent form was sent to the participants through the link. Participants were contacted through the email tab created for the study to allow communication or correspondence. The participants acknowledged their interest and eligibility with the study's email tab. The study announcement was created containing the same information included in the informed consent form except for the information about confidentiality.

The study announcement contained the contact information of the researcher and the information that potential participants could recruit other potential participants for the study. The study announcement included the SurveyMonkey link, where participants first verified their eligibility. Once they self-qualified, they were then taken to the informed consent document. If the participants met the eligibility criteria, they proceeded to the informed consent page. If they did not meet the eligibility screening, they exited the survey. If they accepted the informed consent, they moved to the Round 1 questionnaire. If they did not accept the informed consent, they exited the survey (taken to a page thanking them for their time). All participants remained anonymous to one another, as

they were assigned a unique personal identifier known only to the researcher. The study announcement included the purpose of the study, researcher's contact information, participant criteria, start date, study duration and weekly activities, an overview of data collection protocols, and information on withdrawing from the study.

All potential participants who confirmed their interest and eligibility as study participants were accepted in good faith as eligible and interested participants. No other cross-referencing or separate background survey to justify eligibility was administered. The study announcement on the participant email tab contained the link to the survey on SurveyMonkey. The purpose of the email was to inform the participants that the study would begin once there was a sufficiency of participants who had acknowledged their interest and eligibility. During this process, panel members received explanations as to completing the survey without their prior acknowledgment of interest and eligibility. If they did not meet the eligibility screening, they exited the survey.

Instrumentation, Data Collection, and Analysis

The study link provided to the participants connected them to the informed consent form to begin the survey. The informed consent form included details of the study, procedures to withdraw, and criteria to be a panel member. Participants agreed to the informed consent form to proceed with the Delphi study. If they did not accept the informed consent form, they exited the survey (taken to a page thanking them for their time).

The informed consent form or agreement also contained information that the survey consisted of 4 rounds in 12 weeks, including notice of the deadline for participant

response. Odd number weeks began each new round and were reserved for the participants to complete that particular week's survey. Even number weeks were reserved for analysis of the data that would be provided in the previous week. Week 11/Round 4 was the final week for participants. The agreement also contained information that the study survey would commence after 25 participants had acknowledged their interests and eligibility. To reduce sample attrition during the survey rounds, effective communication was maintained through calls or emails to participants to encourage them to return their questionnaires. Terms of confidentiality were also included for the participants.

Round 1. The data collection began with creating a Round 1 survey questionnaire in SurveyMonkey containing open-ended questions to generate a list of solutions. The survey introduction was provided to the panelists. The introduction disclosed the survey purpose, a reminder of panelists' unique identifier code, the entity that would use the survey information, survey sponsors, and benefits to the respondents for taking the survey. The introduction also included the duration to complete the Round 1 survey and a reminder that three additional rounds were scheduled. At the end of completing the survey, panelists' response data were exported from SurveyMonkey into Word document/Excel spreadsheet and analyzed for emerging statements of the elements of maritime corporate governance among the panelists. Based on the study concepts, the full array of most occurring statements among the panelists was used to develop the close-ended questions for creating the Round 2 questionnaire (Shariff, 2015).

Round 2. The Round 2 survey began by collecting the narrative comments on Round 1 statements from the panelists to revise and create additional statements of new

and relevant ideas without detracting the meaning of the old statements retained from the round. The period for participants' responses was one week. Nonrespondents were followed up by sending reminder emails to them before the final cut off period. Based on the revision of statements, the Round 2 survey questionnaire was created in SurveyMonkey and the survey was tested for mechanics of operation. At the beginning of the round, the survey introduction was provided for the participants, including the duration to complete the survey. The introduction also included a reminder to panelists to enter their unique identifier code, the definitions of feasibility and desirability interval scales for rating opinions, and a reminder that two additional rounds were scheduled. A 5-point Likert-scale was assigned to the elements or solution items for the panelists to rate their desirability and feasibility of those items. Panelists' response data from SurveyMonkey were exported into an Excel spreadsheet. Data were assessed by calculating the frequencies in percentages and the median scores of statements for desirability and feasibility and evaluated for consensus. Solution items that met consensus were moved to the next round. Consensus was defined as (a) a minimum of 70% frequency of an item scoring a 4 or 5 (top two scales) on a 5-point Likert scale or (b) the item that had at least a median of 3.5 on the same Likert scale.

Round 3. This round began by creating a Round 3 survey questionnaire in SurveyMonkey based on the list of statements from panelists satisfying consensus for desirability and feasibility. The survey was tested for the mechanics of operation in SurveyMonkey. The period for participants' responses was one week. Nonrespondents were followed up by sending reminder emails to them before the final cut off period.

Panelists were provided with the Round 3 survey introduction that included the duration to complete the survey, a reminder of panelists to enter their unique identifier code, and a reminder that one additional round was scheduled.

At the beginning of Round 3, the report of the Round 2 data analysis was shared with the panelists. This report contained the frequencies for the desirability and feasibility of each Round 2 solution item along with pertinent comments from panelists. The panelists were asked to select their top five preferred solutions and rank them in the order of importance. Higher weights corresponded to higher preference of the solution items: (a) ranking 1 = weight of 5, (b) ranking 2 = weight of 4, (c) ranking 3 = weight of 3, (d) ranking 4 = weight of 2, and (e) ranking 5 = weight of 1. The items with the largest weighted average ranking scores were the panelists' most preferred solutions reported at the start of Round 4.

Round 4. This round began by creating a Round 4 questionnaire in SurveyMonkey based on the list of solution statements ranked for importance in Round 3. The survey was tested for the mechanics of operation in SurveyMonkey. The period for participants' responses was one week. Nonrespondents were followed up by sending reminder emails to them before the final cut off period. The panelists were provided with the Round 4 survey introduction that included the duration to complete the Round 4 survey, a reminder of panelists' unique identifier code, and the definitions of confidence for rating opinions. The report of the Round 3 analysis was shared with the participants. This report contained the controlled feedback containing the summary of the Likert-type questionnaire responses, including rankings, rather than allowing panelists to

communicate directly with one another (Sekayi, & Kennedy, 2017). Panelists rated their confidence in the totality of the final list of solution items that were earlier ranked for importance from Round 3 and provided their final comments about the items. After rating of confidence of items, panelists' response data from SurveyMonkey were exported into an Excel spreadsheet. Data were measured data by calculating the frequencies in percentages and the median scores of statements for confidence scales. Consensus was measured based on the frequency percentages and median scores for the top two ratings of confidence of "Very confident" and "Confident" (Linstone & Turoff, 2002; Meskell et al., 2014; Von der Gracht, 2012).

Issues of Trustworthiness

A need exists for every researcher to address concerns related to the authenticity of his or her study. Unlike quantitative research in which validity and reliability characterize the traditional measures used in measuring the quality of a study, Noble and Smith (2015) established that there are no universally accepted criteria as scholars use different criteria to appraise the rigor of a qualitative study. Lincoln and Guba (1985) affirmed the criteria of trustworthiness as the most widely accepted test of quality for validating qualitative research among scholars. These criteria include measures for confidentiality, desirability, feasibility, importance (Elo et al., 2014; Lincoln & Guba, 1985). As applicable to Delphi studies, Heitner et al. (2013) also highlighted the need for the researcher to use a four-scale approach adopted by Linstone and Turoff (2002) to enhance the trustworthiness of Delphi data. This approach includes measures for desirability, feasibility, importance, and confidence (Brady, 2015; Heitner et al., 2013;

Von der Gracht, 2008). According to Sellin, Kumlin, Wallsten, and WiklundGustin, (2018), Credibility refers to the limit at which research results are convincing and emerge accurately in light of the research methodology. Transferability is the researcher's ability to relate the processes and procedures of the study to new settings, time frames, and participants. Dependability includes the constancy of study results across researchers and time frames, and Confirmability pertains to the level at which the results indicate the indisputable perceptions of study participants (Sellin et al., 2018).

Credibility

The credibility of a qualitative Delphi study is associated with the concept of truthfulness and dependent on the study's internal validity. According to Njuangang, Liyanage, and Akintoye (2017), the crafting of the questions of the survey questionnaires and the selection of the expert panel members are essential constructs of the credibility of a Delphi study. While the first round Delphi qualitative questions are broad and open-ended, Linstone and Turoff (2002) highlighted that the researcher must be wary of misleading the panel members down a predetermined path, but ensure the questions set the right path for the study. Credibility was achieved for this Delphi study by constructing the appropriate set of initial questions, selecting expert panel members who possessed the right expertise and knowledge of the research topic, and communicating the study requirements to the panelists (Peterson, 2017; Sellin et al., 2018).

There were other vital ways credibility was established for the study. First, researcher biases were reported to ensure the transparency of the data collection and analytical methods (Merriam & Tisdell, 2016). Second, the credibility of the data was

ensured through member-checks throughout the four iterative survey rounds. Member-checking involves the process of allowing panelists to review, edit, or modify their responses based on their understanding of the survey questions (Kim & Yeo, 2018; Noble & Smith, 2015). During the survey process, member checking was facilitated by providing spaces in the Round 2 questionnaire for panel members to give voluntary remarks on how they had derived statements based on the study's concepts from their responses to the Round 1 questionnaire (Peterson, 2017; Sellin et al., 2018). The confidence ratings that each panel member applied to each statement on the Round 4 questionnaire might also support the credibility of the results of the study.

Transferability

Alongside credibility, researchers must also ensure transferability in a qualitative Delphi study by determining whether it is possible to relate the findings and conclusions from the study to other cases involving a similar situation or context. As highlighted by Brady (2015) and Palinkas (2014), a thick description signifies a universal approach to ensuring the transferability of qualitative research findings with as much clarity and details whereby researchers can provide future scholars with adequate information to appraise the study's applicability to other contexts. The strategy of replicating the research in different contexts of the transformation of Nigeria's maritime industry might also add to the transferability of findings from this study.

In this Delphi study, transferability was established by substantiating that the findings might apply to other settings of the industry experts and where such experts might apply the results to enlighten and update professional practice (Brady, 2015). In

achieving this goal, the expert panel members for the study were selected from a sampling frame that might provide descriptive data and sufficient variations of opinions to gather a broad perception and understanding of phenomena (Brady, 2015; Von der Gracht, 2012).

Dependability

During the Delphi rounds, the researcher may employ a variety of tactics to ascertain the dependability of the study in the areas of data collection, quality checking of the collected data, and maintaining unambiguous communication with the panelists. According to Linstone and Turoff (2002), one of the tactics is demonstrated in the group statistical summaries of the responses by the participants. Also, Izaryk and Skarakis-Doyle (2017) affirmed that conducting a field test on the Delphi questionnaire remains an approach to achieving dependability. The measure of dependability indicated the same direction of data judgments of both the field panel and formal panel towards the elements of forward-looking strategy about corporate governance practices necessary for successfully transforming old-path dependence of the management of ICDs.

Other tactics employed to establish dependability in the study included peer examination, triangulation, code-recode, audit trails, and stepwise replication (Berger, 2015; Peterson, 2017). Peer examination involves the process a researcher engages in a dialogue as regards the study's progress and findings with unbiased colleagues (Anney, 2014; Merriam & Tisdell, 2016). In this study context, integrity and data checking were demonstrated by engaging in peer examination through steady discussions about the

research progress with the dissertation committee members and other Walden University students.

Confirmability

Similar to the measure of achieving the quality of dependability, confirmability signifies the last criterion for ensuring trustworthiness in qualitative research. Confirmability refers to the extent to which the researcher establishes that what is described in the qualitative Delphi study precisely represents the viewpoints and opinions of the panelists. The researcher may ensure confirmability in the Delphi study by his commitment to explicitness about the methods employed in the data collection, data analysis, participant selection, and the crafting of the conclusion (Miles et al., 2014). In a Delphi study, Avella (2016) and Von der Gracht (2008) stated that the researcher is the planner and facilitator, and not a participant. During the Delphi rounds of this study, data collection was allowed to come directly from the panel members that lessened the effect of researcher bias in the process (Avella, 2016; Linstone & Turoff, 2002). Personal biases were disallowed to influence the data collection or analysis process to achieve confirmability (Avella, 2016; Von der Gracht, 2008).

There were some strategies also employed to achieve the confirmability of the study. These strategies included maintaining anonymity among the panelists and limiting their interactions to allow a discreet description of their views and opinions from the analyzed data (Gray & Truesdale, 2015; Von der Gracht, 2008). Based on the analyzed data, the results of the study were reported to the panelists for their clarification through member-checks based on the aggregated responses from prior survey rounds (Gray &

Truesdale, 2015; Von der Gracht, 2008). In the process, reflexive journals were kept, while a rigorous audit trail of the Delphi rounds was maintained. In a similar approach, Liddell, Allan, and Goss (2017) verified the use of thick descriptions and audit trails by other scholars to establish confirmability in Delphi studies. Utilizing audit trails and reflexive journals avail transparency in the research process by permitting other scholars the opportunity to review the remarks and materials describing an author's methodological choices, interpretative judgments, and assumptions (Anney, 2014; Diaz, Warner, & Webb, 2018). In this study, reflexive journals or detailed notes were useful in substantiating the confirmability of the results, which might help future researchers to verify or authenticate the underlying principle for every inference or conclusion.

Ethical Procedures

Ethical considerations for qualitative research include the appropriate dealing or treatment of the study participants, securing, and handling of the collected data. The topic of restructuring old-path dependence in ICDs in the Nigerian maritime industry did not raise an ethical concern for the human participants or from the organizations they belong to. The use of SurveyMonkey for the classical Delphi surveys assured the protection of the participants' privacy. SurveyMonkey provided a single and exclusive identifier for all the panel members to enable them to submit responses that remained anonymous among them, while their information was kept confidential at all times. The essence of anonymity among panelists during the survey rounds was to facilitate their well-being in that they would be truthful when providing their responses without the fear of retribution.

The intent in this study was to collect crucial information from human participants, who were mostly experts in the maritime sector. An electronic survey was used to protect the privacy of the participants and to maintain the protection of their interests against any repercussions for taking part in or expressing any perceptions or opinions during the study. Attention was also focused on ensuring human participants' confidentiality and privacy throughout the study. The surveys were designed not to include names of the participants, and the submitted responses were known only to the researcher. The confidentiality of the responses provided might promote the well-being of participants as they might be truthful to their responses without the fear of retribution. Another essential role critical to participants' privacy included briefing them on their rights, particularly the right to withdraw from the study at any stage. According to Bennouna, Mansourian, and Stark (2017) and Ross, Iguchi, and Panicker (2018), the central principles of ethical considerations in the study were the respect for persons, beneficence, and justice, which would guide the researcher in the procedures of obtaining the informed consent, assessing the risks, and selecting the participants.

Data collection for this study did not take place before the IRB approval notification. Any contact with study participants commenced only after the Walden University IRB approved of the study's Round 1 instrument. Meeting the requirements for IRB approval was satisfied, and the procedures of conducting the Delphi study complied with Walden University's ethical standards. After receiving approval from the IRB, permission to conduct the study was sought and granted by the group owners of the NSC. A letter of cooperation was obtained from the association group owners before

selecting the expert panel for the study. Later, an informed consent form was sent to the study participants, providing background information on the voluntary nature of their participation, study purpose, procedure, risks, and benefits. Necessary contact information was also provided in the event the participants might have questions or concerns. My acquaintance with the language and local culture of panelists helped in adhering to the limited norms of privacy, confidentiality, and cultural sensitivities.

There were no ethical concerns related to recruitment materials and processes as I did not perceive ethical issues on the topic of this study. The study announcement was used as the recruitment material, and the words and terminology used were vetted to be free of harm to the participants and the University. Participants might fear that if they withdrew, they might compromise their reputation. The informed consent form contained information that the participants could withdraw from the study at any time without penalty. I did not have any connection with the NSC or any government maritime agencies connected with the administration of ICDs at any point in time. The individual details of all participants constituting the Delphi panel remained confidential. I assigned participant unique identifier in SurveyMonkey with an alphanumeric code that represents the NSC and individual expert. Survey data were kept in password-protected storage locations such as a laptop, flash drive, and Onedrive. The details of the code assignment were confidential and separated from the data archives, ensuring sufficient anonymity to the individual panelist. The transcripts and translations of data had only the codenames and not any exclusive details identifiable of the participants. I, as the researcher, the Chair of the dissertation committee, and the committee member, had access to the study

data. All data were protected and shared only with the university officials concerned with the dissertation, as might be necessary.

The aggregated data and the participant's unique data (identified by SurveyMonkey participant unique identifier) were shared at the beginning of Rounds 2, 3, and 4. Individual comments, names, and participant codes were reported to the panelists. Panelists received the statistical summary reports of the Delphi rounds via SurveyMonkey or emails to improve knowledge exchange and research transparency. Also, the individuals not selected as expert panelists and attritive participants could opt to receive summary reports between rounds (Shariff, 2015). The NSC received only the extensive findings from the study, which did not result in linking any view or remark to a particular individual. I adopted adequate measures for ensuring data security while storing and processing the data as all storage was password protected and with access control. Access to the data accounting log, data storage, and backup was limited only to me. The guiding principle at all stages of the study was the dominance of ensuring safety and privacy and reducing any potential risks to the participants. The study data would be destroyed five years after Walden University has fully approved the final dissertation document, which is a law of the University. After five years, the data would be permanently deleted, and the flash drive would be destroyed based on the data protection requirements of the Walden University.

Summary

The Delphi research design is appropriate for building consensus among a group of experts in situations where the existing scholarship on a research topic is inadequate.

This qualitative Classical Delphi study was designed to determine how a panel of 25 Nigerian maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. For this Delphi study, the selected scholarly or practitioner experts from the NSC met either of the two stated expert criteria as applicable: a) Maritime scholar, an individual who offers research services in the maritime sector with at least 5 published research papers demonstrating scholarly knowledge and experience in the Nigerian maritime governance practices. The expert must express willingness to participate and devote sufficient time commitment during the survey rounds; b) Maritime practitioner or professional, an individual who is well versed with 5 or more years of experience in the aspects of various maritime business practices, laws, and regulations guiding the industry, including the specifics and the core of problems about port governance.

Chapter 3 contains a review of the Delphi design and explanations on how I selected the study participants. These explanations were consistent with how the panel members collaborated and provided qualitative data to the researcher. The Delphi instruments possessed the features of anonymity among panelists and an efficient structure by which they communicated effectively with the researcher. In the process of the Delphi panel composition, members' participation in the survey rounds was voluntary, and without any coercion or compensation. Protection of the privacy and the confidentiality of participants' responses were ensured by assigning code names to the data. With the utmost level of priority, a need existed to keep the safety and interests of

the participants and also, adhering strictly to the Walden University IRB's instructions in line with the required ethical standards throughout the study. The data collection began after obtaining a letter of cooperation from the NSC. Because there was no professional relationship maintained with the professional association or their members, any possibility of my biases or power relationship that might influence the study was low. During the Delphi rounds, I provided adequate measures to prevent any residual researcher bias that might evolve during the data collection and analysis.

The results of this Delphi study are discussed in Chapter 4. Also, Chapter 4 contains the research settings, details of the participants and data collection, expert comments, data analysis, coding, and the evidence of the trustworthiness.

Chapter 4: Results

The purpose of this qualitative classical Delphi study was to determine how a panel of 25 Nigerian maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The initial target panel size was 30 experts. The sample size obtained for the study was 25 from Round 1 through Round 4. The primary research question and three subquestions crafted for this study were as follows:

Primary Research Question (RQ1): How does a panel of Nigerian maritime industry experts view the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Subquestion (SQ1): How does a panel of Nigerian maritime industry experts view the desirability of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Subquestion (SQ2): How does a panel of Nigerian maritime industry experts view the feasibility of corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Subquestion (SQ3): How does a panel of Nigerian maritime industry experts view the importance of desirable and feasible corporate governance practices for successfully

transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise?

Chapter 4 contains a summary of the research setting, demographic composition of the expert panel, data collection and analyses, and evidence of trustworthiness, study results, and summary. This chapter includes the presentation of the results of the four rounds of data collection and analyses. The analysis of the narrative responses to Round 1 open-ended questions answered by the expert panel formed a diverse list of nuanced forward-looking solutions to corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The focus of Round 2 was on the rating of the desirability and feasibility of forward-looking solutions items and comparing strategies against Likert-type scales to evaluate further consensus on these items moved from Round 1. The expert responses provided in this round were presented to the panelists in Round 3. The focus of Round 3 was on the ranking of the importance of forward-looking solutions items and comparing strategies against Likert-type scales to evaluate further consensus on these items moved from Round 2. The responses provided in Round 3 were presented to the panelists in Round 4, which they rated for confidence. Chapter 4 concludes with a summary of the answers to the research question and subquestions.

Research Setting

Integral to this classical Delphi study was the composition of a panel of experts who had a background in Delphi research and cognate knowledge of maritime corporate governance practices. Individuals invited to participate were maritime researchers who

had applied the Delphi design to a wide variety of industry situations and port practitioners who possessed industry business experience and knowledge of port corporate governance practices. A site contact from a relevant maritime organization assisted in inviting potential panelists through their nonbusiness e-mail addresses to participate in the study. Expert panelists remained anonymous to one another, while their personal information and responses provided were kept confidential at all times. Only experts who participated in the previous Delphi round were eligible to participate in the subsequent rounds.

Four iterative rounds of Delphi electronic surveys were conducted through SurveyMonkey in an online environment. There were no conditions monitored or observed, either personal or professional/organizational, that might have influenced the opinions and experiences of the panelists because the electronic surveys did not permit in-person or direct interactions with any panelists. Due to the absence of observation, there was no awareness of any factors or conditions that might have influenced the interpretation of the results of the study.

Demographics

There were 25 panelists recruited for this study according to the selection criteria identified in Chapter 3. All of these panelists participated in the four survey rounds. The expert panelists possessed at least one of the following characteristics, which represented their experience and expertise consistent with the eligibility criteria: (a) research services in the maritime sector with at least 5 published research papers demonstrating scholarly knowledge and experience, including the history and evolution of port development,

administration, and governance practices in the Nigerian maritime industry; (b) five or more years of professional practice and experience in the aspects of various laws and regulations guiding the maritime industry, including the specifics and the core of problems about port corporate governance practices. No other demographic information such as gender, age range, highest education level, and type of job was collected or recognized for this classical Delphi study.

Data Collection

Data collection occurred electronically from panelists upon receipt of Walden University's IRB approval for this study (approval number 01-24-20-0543561). The only personal contact information of the panelists collected was their nonbusiness email addresses for posting invitations and contacting them during the Delphi rounds. The panelists electronically indicated to the terms of informed consent before participating in this study by clicking agree or disagree. Panelists who consented to participate needed to click agree to confirm they met the survey eligibility criteria.

Participation Overview

This classical Delphi study involved four rounds of data collection, analysis, and results. This section consists of the details of the data collection and analysis. Data collection occurred between March 2, 2020, and May 9, 2020. Table 3 depicts the survey completion rate for each round of data collection for panelists who both consented to participate and verified meeting eligibility requirements.

Table 3

Survey Completion Rate for Each Delphi Round

Round	Participants reached	Surveys completed	Response rate %
1	30	25	83.3
2	25	25	100.0
3	25	25	100.0
4	25	25	100.0

Throughout the four rounds, there was no panelist attrition recorded based on the original informed consent acceptance count of 25 participants. Panelist response rates between the iterative rounds were slow, particularly between Round 2 and Round 3. An assumption that could further explain the slow response rate was the lengthiness of the Round 1 survey and the experiences resulting from the incident of the COVID-19 pandemic.

Table 4 contains the timelines for the data collection and analyses of each of the four rounds. The discussion of the study results appears in the Study Results section of this chapter.

Table 4

Data Collection and Analysis Timeline

	Survey Dates		Analysis Dates	
Round	Start	Finish	Start	Finish
1	3/2/2020	3/15/2020	3/16/2020	3/18/2020
2	3/28/2020	4/6/2020	4/8/2020	4/10/2020
3	4/21/2020	4/27/2020	4/28/2020	4/29/2020
4	5/1/2020	5/7/2020	5/8/2020	5/9//2020

Location, Frequency, and Duration of Data Collection

Data collection occurred between March 2, 2020, and May 9, 2020. The four data collection instruments used in this Delphi study were distributed through SurveyMonkey, a reputable online provider of survey tools. The exchange of all four survey invitations was distributed to the expert panelists in the partner organization located in the South-West and North-Central regions of Nigeria.

Round 1. A field test conducted initially served to confirm the content validity of the Round 1 survey. Three maritime experts who met the eligibility requirements for participating in the study provided feedback as to the content validity, the comprehensibility of the instructions, and clarity of the survey questions (see Appendix A). The field test participants deemed the Round 1 questionnaire to be clearly written with the use of understandable terminology, and relevance to the focus of this study. There were no concerns about the clarity of the instrument. Also, there were no recommended changes relating to the Delphi data collection method before sending the Round 1 questionnaire to the study panelists.

Of the six categories of recommended corporate governance practices, 429 responses emerged from 25 surveys. A varied list of 69 unique forward-looking solution items, considered relevant, emerged for inclusion from all the six categories, which were carried to the Round 2 survey. Round 1 had 25 survey completions.

Round 2. Data collection for Round 2 commenced following data analysis from Round 1 and Walden University IRB approval of the Round 2 survey instrument. Using two separate 5-point Likert-type scales, the panelists rated 69 solution items for

desirability and feasibility. Panelists had the option to provide rationale or comments related to any of the items, particularly those with ratings of 1 or 2 on either scale, where there was a level of disagreement. In Round 2, corporate governance practice solution items with the top two percentages (rating of 4 or 5) with 70% or higher on both the desirability and feasibility scales were to be moved to Round 3. Because only 15 of the 69 items on the Round 2 survey did not meet the primary measure for consensus on the desirability scale, the consensus threshold was increased to 80% with a median score of 5 (see Appendix C). The consensus threshold was also increased to 80% for items that met the primary measure for consensus on the feasibility scale with median scores of 4 and 5. Thirty-three out of 69 solution items advanced to the next Delphi round. Round 2 had 25 survey completions.

Round 3. Data collection for Round 3 commenced following data analysis from Round 2 and Walden University IRB approval of the Round 3 survey instrument. From the 33 solution items carried over from Round 2, panelists chose their top five preferred items and then ranked those solutions for importance using ranking numbers 1 to 5. Panelists explained why they ranked an item low in the Round 3 survey. Eight corporate governance practice solution items with the largest weighted average ranking scores emerged as the panelists' most preferred solutions for inclusion in Round 4. Round 3 had 25 survey completions.

Round 4. Data collection for Round 4 commenced following data analysis from Round 3 and Walden University IRB approval of the Round 4 survey instrument. The Round 4 survey involved the top eight solution items that were earlier ranked for

importance moved from Round 3. Consensus was measured based on the frequency percentages and median scores for the panelists' top two ratings of confidence (Appendix H). Out of eight solution items rated for confidence in Round 4, only five items satisfied the consensus threshold greater than or equal to 80% for the rating scores of 4 and 5. The goal was to build the level of consensus among the panelists as to the forward-looking corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. Round 4 had 25 survey completions.

Data Recording Procedures

Survey questionnaires for the four Delphi rounds were distributed to panelists through SurveyMonkey. Survey data were exported to an Excel spreadsheet (an XLS file), and two copies of the data were created in the XLS format. The first file contained the raw survey data from SurveyMonkey, and the second file contained a transposed version of the data more appropriate for data analysis. All data files were saved to a secure folder on a laptop and later copied to an external USB drive and Microsoft OneDrive for safekeeping.

Variations in Data Collection

A few differences existed between the data collection plan outlined in Chapter 3 and the actual data collection performed for this study. First, in Round 2, 54 out of 69 items would have moved to Round 3 if the items with the top two percentages met the primary measure for consensus on both the desirability and feasibility scales with 70% or higher having median scores of 4 and 5 on both scales (see Appendix C). The high

proportion of items that met the threshold for consensus indicated that the threshold was too low. The consensus threshold for items that met the primary measure on the desirability scale was increased to 80% with a median score of 5. Also, the consensus threshold was increased to 80% for items that met the primary measure on the feasibility scale, with median scores of 4 and 5 (see Appendix D). The goal was to narrow the list to reflect the items with the highest level of consensus, not to advance as many items as possible. Thirty-three out of 69 solution items advanced to Round 3.

In the third round, only three out of 33 solution items met the minimum consensus threshold of 80% with the ranking weights of 1 and 2. The consensus threshold of ranking was increased by the addition of the ranking weights of 1, 2, and 3, resulting in eight solution items advanced to Round 4.

Data Analysis

The expert panel in this classical Delphi study completed four rounds of surveys over 2 months. The iterative 4-round Delphi approach led to a large amount of data to analyze using the SurveyMonkey and Microsoft Excel tools. From the open-ended Round 1 survey, a varied list of 69 nuanced solutions satisfied the criteria for Round 2 data inclusion. Separate Microsoft Excel spreadsheets facilitated analysis to compile a varied list of panelists' responses from the Round 1 survey.

The 25 completed Round 1 surveys produced 429 responses from six categories leading to the creation of a list of 69 potential corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The final list comprised six categories: (a) governance practices to

manage the congestion of cargo traffic within the port environment, (b) governance practices to ensure compliance with maritime laws and policies, (c) governance practices for ensuring the protection of the interests of shippers, port workers, concessionaires, and contractors, (d) governance practices to address the multiplicity of corporate governance codes regulating various stakeholder organizations, (e) governance practices for ensuring the protection of port physical assets or infrastructure, (f) additional governance practices recommended. There were not any abnormal situations experienced during the Round 1 data collection.

Rounds 2, 3, and 4 data underwent analysis numerically to determine the frequencies and the median for the items measured for consensus. From Round 2 results, a high level of consensus indicated the need for a different consensus threshold varying from that recommended in the literature (e.g., Hsu & Sandford, 2007). The consensus threshold in Round 2 was increased to 80% for items that met the primary measure on the desirability scale, with a median score of 5. Also, the consensus threshold was increased to 80% for items that met the primary measure on the feasibility scale with median scores of 4 and 5. Using the primary measure for both desirability and feasibility scales resulted in 33 solution items interpreting minimal data reduction. An overview of this data is found in Appendix D. There were not any abnormal situations experienced during the Round 2 data collection.

In Round 3, the top five preferred solution items ranked for importance by each panelist were evaluated. Of the 33 items analyzed, only three emerged at a threshold equal to or greater than 80% with ranking scores of 1 and 2. Eight solution items emerged

at a raised threshold equal to or greater than 80% with ranking scores of 1, 2, and 3. These top 8 solution items with the largest weighted average ranking scores were the panelists' most preferred solutions reported at the start of Round 4 (Appendix F). There were not any abnormal situations experienced during the Round 3 data collection.

In Round 4, top 8 solution items earlier ranked for importance in Round 3 were rated for confidence. Consensus was evaluated based on the frequency percentages and median scores for the top two ratings of confidence (Appendix H). Out of eight solution items rated for confidence in Round 4, only five items satisfied the consensus threshold greater than, or equal to 80% for the rating scores of 4 and 5 representing the final consensus-building among the panelists. There were not any abnormal situations experienced during the Round 3 data collection. Table 5 presents data reduction by the number of items in each category from Round 2 to Rounds 3 and 4.

Table 5

Data Reduction by Items in Each Category from Round 2 to Round 3 and 4

Category of Solution Items	Number of Items		
	Round 2	Round 3	Round 4
Governance practices to manage the congestion of cargo traffic within the port environment	6	2	2
Governance practices to ensure compliance with maritime laws and policies	6	3	1
Governance practices for ensuring the protection of the interests of (a) shippers, (b) port workers, (c) concessionaires, and (d) contractors	7	2	1
Governance practices to address the multiplicity of corporate governance codes regulating various stakeholder organizations	5	0	0
Governance practices for ensuring the protection of port physical assets or infrastructure	4	0	0
Additional governance practices recommended	5	1	1
All items	33	8	5

Evidence of Trustworthiness

Credibility

In qualitative research, credibility refers to the extent to which the analysis of the data collected and the results of the research are believable to the reader, as well as the researcher's confidence in making decisions based on the findings and interpretations (Merriam & Tisdell, 2016). The credibility of this study was established based on the results that reflected an accurate integration between the responses provided by the expert panel and the recommendations of the research. There were no deviations or changes

from the proposed credibility plan and the final credibility approach in this study. Although some panelists provided additional information regarding corporate governance practices than others in Round 1, the responses aligned with maritime corporate governance practices distilled from the literature review.

The development of the Round 1 survey instrument, the field test conducted on the Round 1 instrument, the panelists' feedback on items ranked for importance in Round 3, the self-assessment of confidence levels of panelists' responses in Round 4, were consistent with establishing credibility for the study. In the final list of the evolving solution items, the sum of the two highest confidence ratings (4 = *Reliable* and 5 = *Certain*) was 90.4%. This result indicated that 90.4% of the panelists had confidence in the truth of the findings of the study.

Transferability

Transferability, also known as external validity, refers to the extent to which a researcher can apply the findings from his study to other similar contexts or situations (Cope, 2014; Lincoln & Guba, 1985; Trochim, Donnelly, & Arora, 2016). The transferability of the results of this study was achieved by establishing that the findings apply to other settings of the experts, and in alignment with the expertise of the panel members and the contexts where they may use the findings to inform industry practice (Brady, 2015). The opportunity for transferability in this study was established in the alignment between the eligibility criteria of the panelists and the phenomenon under study based on purposeful sampling strategy that is consistent with Delphi studies (Brady, 2015).

Through the administration of the online SurveyMonkey tool that ensured consistency of how the panelists participated in the survey rounds, a detailed outline of the study phenomenon was presented as well as the narrative of the fieldwork requirements to the panelists. This information could facilitate how readers may have a better understanding of the study and also enable them to compare their circumstances to the particular context of this study and make conjectures of transferability (Cope, 2014; Lincoln & Guba, 1985). In the literature review, past studies and articles were assessed, indicating the need for maritime corporate governance practices in which different methodologies were employed. The findings derived from that research were consistent with gauging transferability when compared to the findings of the expert panel of this study (Brady, 2015; Meskell et al., 2014). The consensus-based list of governance practices that evolved from this study can potentially be used as a starting point for future research, when revisions and updates about maritime corporate governance practices may be necessary again.

Dependability

In qualitative research, dependability is established when a researcher's findings of an investigation remain consistent with obtaining the same results when the study is replicated using the same research process, including data collection in the same or similar context (Lincoln & Guba, 1985). Dependability of a study relies on the stability of the data collected, minimizing researcher bias by demonstrating integrity, and data checking using an audit trail (Merriam & Tisdell, 2016). A researcher establishes dependability in a study through maintaining proper documentation and record-keeping

of the Delphi rounds, including information about data storage, questionnaire data, data collection and analysis, and software use (Fletcher & Marchildon, 2014; McPherson, Reese, & Wendler, 2018; Sekayi & Kennedy, 2017). In the current study, the following tasks were performed to establish dependability in the four Delphi rounds: a) storing raw survey data, b) providing thorough instructions in each survey instrument, c) explanation of data collection and analysis procedures, questionnaire data, and software use, and d) presentation of the findings of each Delphi round.

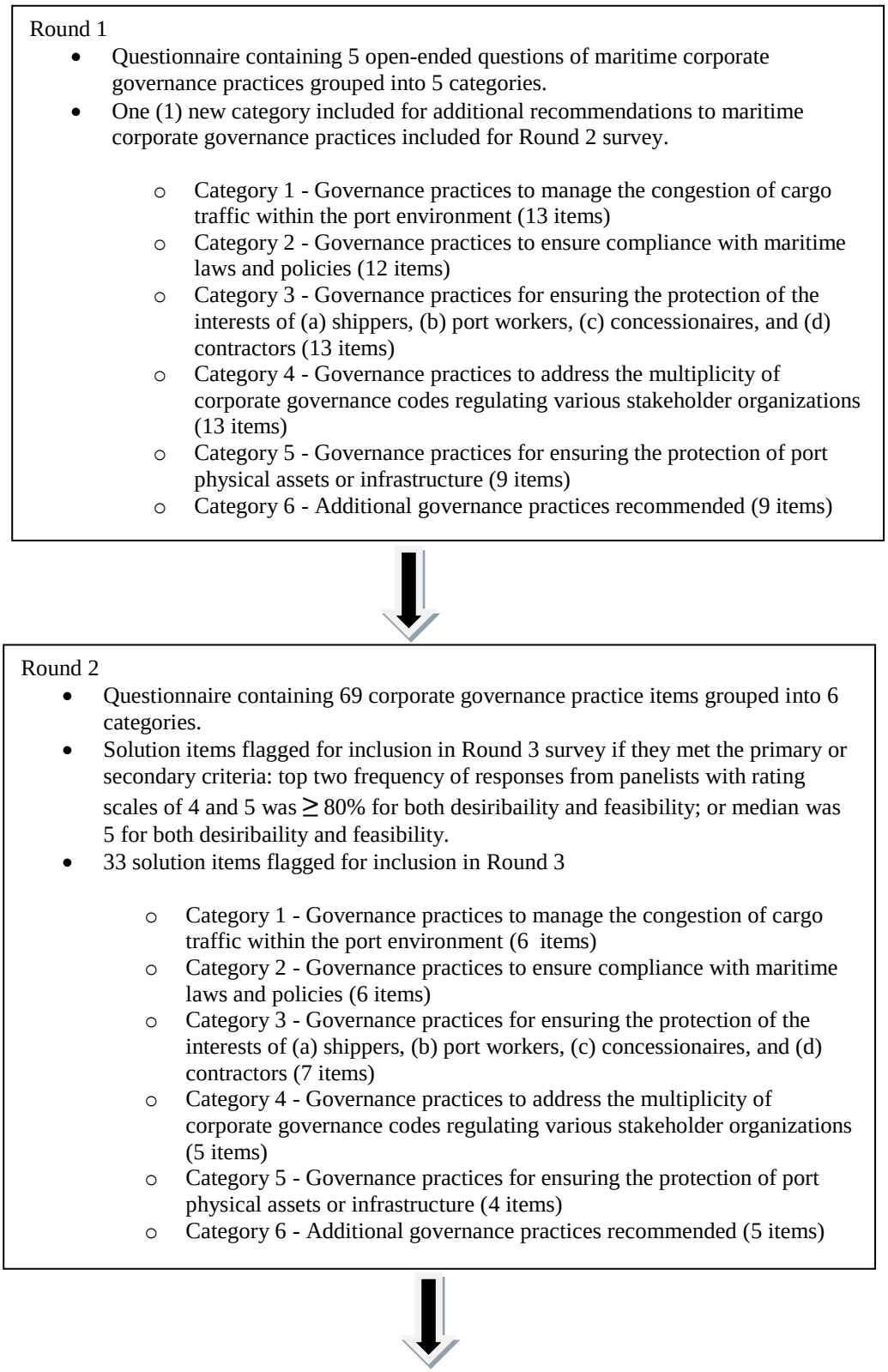
Confirmability

Confirmability refers to the neutrality and accuracy of qualitative data or panelists' viewpoints without any trace of the researcher's biases, perspectives, interests, or motivations (Lincoln & Guba, 1985). My role, as the only researcher in the study, minimized personal bias, which contributed to objectivity and neutrality during the Delphi rounds. Confirmability was evident through daily consultations with the dissertation Chair, who facilitated the development and execution of each survey round, including the processes involved in the data reduction protocols documented in the section on Data Collection and Analysis in this chapter. Also, the audit trail maintained in the process could be attributed to the conformability of the findings of this study.

Study Results

This classical Delphi study involved four rounds of iterative data collection, analyses, and results. This section contains the results of each of the four rounds, indicating the goal of building a consensus among a panel of experts as to the desirability, feasibility, and importance of corporate governance practices for successfully

transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The data reduction results of the categories of forward-looking maritime corporate governance practices items for each round are shown in Figure 3.



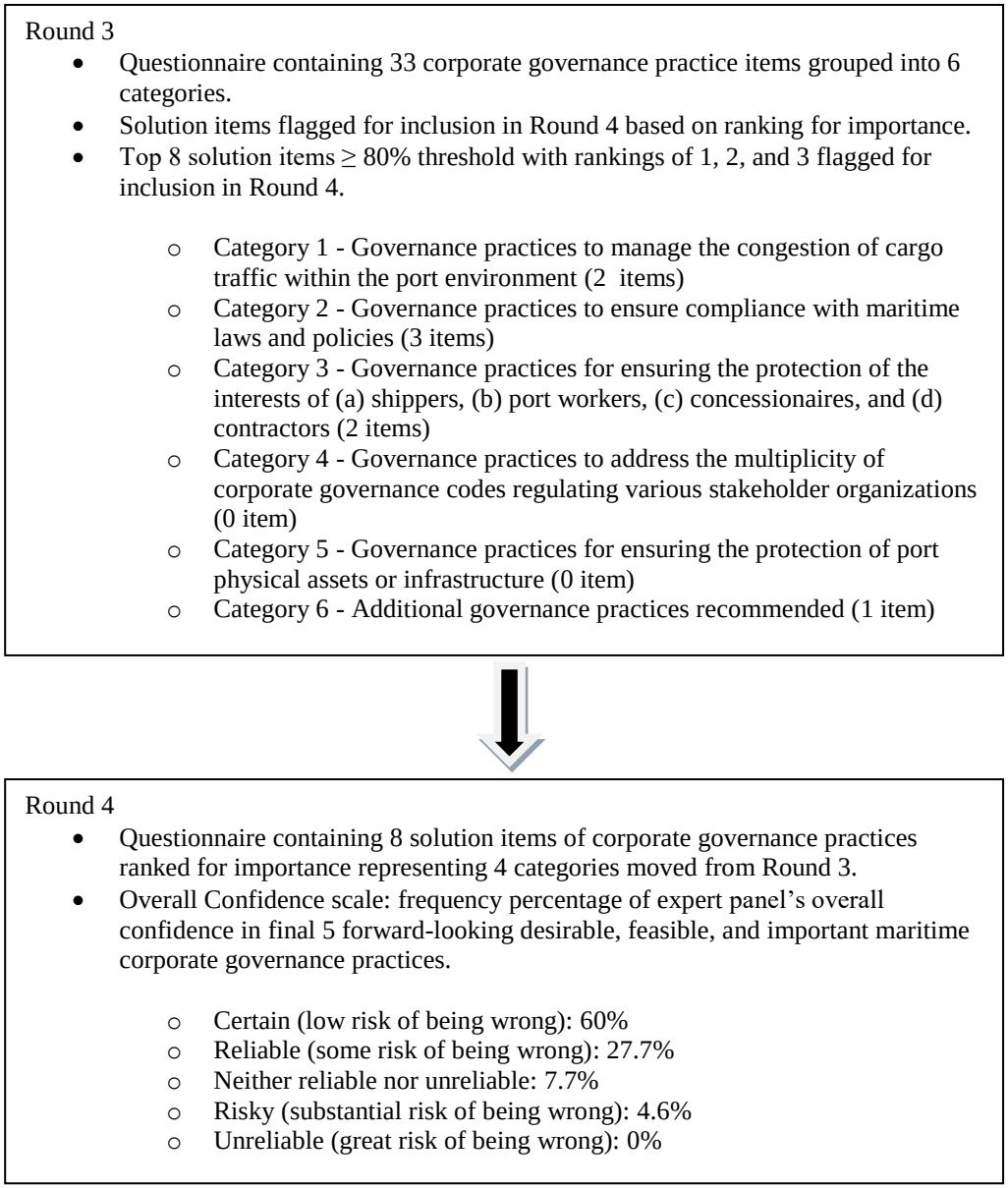


Figure 3. Data reduction results.

Round 1

In the first round, 25 panelists recommended forward-looking strategies or solutions for maritime corporate governance practices. From the open-ended responses provided by the expert panel, six categories of solutions emerged: (a) governance practices to manage the congestion of cargo traffic within the port environment, (b)

governance practices to ensure compliance with maritime laws and policies, (c) governance practices for ensuring the protection of the interests of shippers, port workers, concessionaires, and contractors, (d) governance practices to address the multiplicity of corporate governance codes regulating various stakeholder organizations, (e) governance practices for ensuring the protection of port physical assets or infrastructure, (f) additional governance practices recommended. These six categories informed the development of 69 solution items for the Round 2 survey.

Round 2

The threshold for reaching the initial consensus measurement in Round 2 was 70% frequency of an item with a median score of 4 or 5 (top two scales) on both the desirability and feasibility 5-point Likert scales. The expert panel achieved established levels for consensus on 54 of the 69 solution items. Because only 15 out of the 54 items did not meet the primary measure for consensus on the desirability scale, the consensus threshold was increased to 80% with a median score of 5. The consensus threshold was also increased to 80% for items that met the primary measure for consensus on the feasibility scale with a median score of 4 and 5. Using the primary measure for both desirability and feasibility scales resulted in 33 solution items interpreting minimal data reduction. Appendix C contains the solution items for desirability and feasibility, satisfying established levels for consensus for categories and subcategories developed from Round 1. Solution item ratings with the top two frequency percentages and medians are contained in Appendix D. The 33 items that satisfied consensus thresholds for both desirability and feasibility appear in Table 6 by category.

Table 6

Solution Items That Met Consensus for Both Desirability and Feasibility in Round 2

Category	Solution Item
Governance practices to manage the congestion of cargo traffic within the port environment	S5, S6, S8, S9, S11, S12
Governance practices to ensure compliance with maritime laws and policies	S14, S17, S19, S20, S23, S25
Governance practices for ensuring the protection of the interests of (a) shippers, (b) port workers, (c) concessionaires, and (d) contractors	S26, S27, S30, S31, S32, S37, S38
Governance practices to address the multiplicity of corporate governance codes regulating various stakeholder organizations	S40, S41, S42, S48, S50
Governance practices for ensuring the protection of port physical assets or infrastructure	S54, S57, S58, S59
Additional governance practices recommended	S63, S64, S65, S67, S69

Panelists commented on solution items that were rated low to further inform the final analysis of this study. A summary of reasons panelists gave for rating an item as low for desirability, feasibility, or both in Round 2 follows:

- The need to harmonize all seaport rates, charges, and levies was rated undesirable and unfeasible. In business, there has to be competition.
- Re-enactment of Companies and Allied Matters Act (CAMA) 2004 Bill to promote high standards of accountability and corporate governance was rated unfeasible. The Bill requires a lot of lobbying.

- Expertise and capacity are the criteria for recruiting port managers as opposed to the political appointment or interpersonal influences that were rated unfeasible. Politicians in the country are yet to understand meritocracy because the federal character will always prevail over merit.
- Provision of adequate infrastructure (plant and equipment) to optimize cargo handling was rated undesirable and unfeasible. Using KPIs like crane move per hour and berth productivity rate should be considered.
- Making more user friendly of all registration and licensing processes of shipping and cargo clearance operations were rated very undesirable and very unfeasible. Automation of documentation processes is preferred as it will discourage movement from table to table that causes delays.
- Discouragement of numerous public holidays that disrupt port operations at certain seasons of the year was rated very undesirable and very unfeasible. With automation, port operations continue with or without public holidays.
- Eradicating facilitation payments and bribes in shipping operations through automated cargo clearing operations was rated very undesirable and very unfeasible. Eradicating facilitation payments and bribes becomes possible with automation once human contact is cut off.
- Eradication of poor and obsolete port infrastructure and increasing container port capacity limits was rated very undesirable and very unfeasible. Government agencies must ensure continuous performance measurement to address service inefficiency.

The Round 2 instrument contained 69 items on forward-looking strategies in six categories. Based on the results of the Round 2 data analysis, 33 of the 69 items met the consensus threshold used in Round 2 and advanced to Round 3.

Round 3

Round 3 data analysis involved consensus measurement from 33 solution items moved from Round 2. The top five preferred items ranked for importance by each panelist were evaluated. Only three solution items emerged at the consensus threshold equal to or greater than 80% with ranking scores of 1 and 2. When the threshold was raised to equal to or greater than 80% with ranking scores of 1, 2, and 3, eight solution items emerged in the final analysis for this round. Appendix F contains the top eight solution items satisfying the consensus threshold of greater than or equal to 80% with the ranking scores of 1, 2, and 3. Table 7 presents the panelists' top eight solution items meeting consensus measurement moved to Round 4.

Table 7

Top 8 Solution Items ≥ 80% Consensus Threshold with Ranking of 1, 2, and 3 in Round 3

Category	Solution Item from Round 3 Survey	Ranking (%)
Governance practices to manage the congestion of cargo traffic within the port environment	S1, S6	85.0, 87.5
Governance practices to ensure compliance with maritime laws and policies	S8, S10, S11	100, 87.5, 100
Governance practices for ensuring the protection of the interests of (a) shippers, (b) port workers, (c) concessionaires, and (d) contractors	S15, S19	100
Governance practices to address the multiplicity of corporate governance codes regulating various stakeholder organizations	None	0
Governance practices for ensuring the protection of port physical assets or infrastructure	None	0
Additional governance practices recommended	S32	100

Round 4

Appendix H contains the Round 4 data showing frequency percentages for the confidence ratings of eight solution items provided by the panelists. The frequency percentages in the order of the confidence rating scales provided by the panelists were: *Certain (low risk of being wrong)* = 60%, *Reliable (some risk of being wrong)* = 27.7%, *Neither reliable nor unreliable* = 7.7%, *Risky (substantial risk of being wrong)* = 4.6%, and *Unreliable (great risk of being wrong)* = 0%.

The final analysis, using a consensus threshold of 80% or higher and rating scores of 4 and 5 resulted in five items satisfying consensus-building among the panelists. Table

8 presents the five solution items that emerged for panelists' confidence ratings in Round 4, ranging between 84.61% and 92.31% for the rating scores of 4 and 5.

Table 8

Final 5 Solution Items for Panelists' Confidence Ratings in Round 4

Category	Panelists' Confidence Ratings of Solution Item (Frequency %)
Governance practices to manage the congestion of cargo traffic within the port environment	S1: 88.46, S2: 92.31
Governance practices to ensure compliance with maritime laws and policies	S4: 88.46
Governance practices for ensuring the protection of the interests of (a) shippers, (b) port workers, (c) concessionaires, and (d) contractors	S7: 84.62
Governance practices to address the multiplicity of corporate governance codes regulating various stakeholder organizations	None
Governance practices for ensuring the protection of port physical assets or infrastructure	None
Additional governance practices recommended	S8: 84.61

The five solution items meeting the final measure of consensus were the panelists' similarities regarding how they viewed forward-looking strategies to transform the old-path dependence of the management of ICDs into a sustainable enterprise. The following section presents how these resultant strategies answer the three research subquestions and the primary research question.

Answering the Research Questions

The goal of the study and methodology was to answer the primary research question and three subquestions. The intent in each Delphi round was to identify consensus on the forward-looking strategies to transform the old-path dependence of the management of ICDs into a sustainable enterprise. This section covers the study results for consensus on desirable, feasible, and important corporate governance practices by the research subquestions and the overarching research question.

Primary research question and three research subquestions. The overarching research question and the three subquestions pertained to how a panel of maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. 33 solutions in six categories met the threshold for consensus on desirability and feasibility in Round 2, addressing the first and second subquestions. Eight solutions in four categories were ranked highest for importance in Round 3, answering the subquestion pertaining to importance. Of these eight maritime corporate governance practice solutions rated for confidence in Round 4, five solutions satisfied the consensus threshold of 80% or higher with rating scores of 4 and 5 in four categories. The four categories were: (a) governance practices to manage the congestion of cargo traffic within the port environment; (b) governance practices to ensure compliance with maritime laws and policies; (c) governance practices for ensuring the protection of the interests of shippers, port workers, concessionaires, and contractors; and (d) additional governance practices recommended by panelists.

Table 8 showed the five maritime corporate governance practice strategies for each of the four categories. The final five solution items of desirable, feasible, and important forward-looking maritime corporate governance practices were: (a) provision of adequate infrastructure to optimize cargo handling; (b) creation of efficient truck parks to rid port access roads of traffic gridlock; (c) establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry; (d) echelon of regulatory bodies in port privatization occupied by persons with ample experience in the maritime industry; and (e) creation of short courses to develop the capacity of port workers and administrative staff.

Summary

This chapter contains the results of the qualitative classical Delphi study consisting of iterative four rounds of data collection and analyses. The goal of the study and methodology was to explore the views of a panel of Nigerian maritime industry experts on the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise.

In Round 1, panelists provided their opinions or recommendations based on open-ended questions that resulted in 69 maritime corporate governance practice solution items. In Round 2, the expert panel rated 69 maritime corporate governance practice solution items for desirability and feasibility. Round 2 data analysis resulted in 33 solution items passing both the primary and secondary measures when the consensus threshold was increased to 80% with rating scales of 4 and 5. Eight solution items

emerged in Round 3, satisfying the consensus threshold of 80% or higher with ranking scores of 1, 2, and 3. These eight solution items were the expert panel's top-ranked choices. In Round 4, panelists rated their confidence in the eight solution items ranked for importance in Round 3. Final analysis using a consensus threshold of 80% or higher with rating scores of 4 and 5, resulted in the final five solution items of forward-looking maritime corporate governance practices that were desirable, feasible, and important in four categories.

Round 4's final five solution items of desirable, feasible, and important forward-looking maritime corporate governance practices were: (a) provision of adequate infrastructure to optimize cargo handling; (b) creation of efficient truck parks to rid port access roads of traffic gridlock; (c) establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry; (d) echelon of regulatory bodies in port privatization occupied by persons with ample experience in the maritime industry; and (e) creation of short courses to develop the capacity of port workers and administrative staff.

The other two forward-looking maritime corporate governance practice solutions had a high confidence level rated by the panelists in Round 4. These solution items were also desirable, feasible, and important. The two solution items were: identifying best practices to improve the quality of regulatory decisions (76.0% confidence rating); and adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors (76.9% confidence rating). Chapter 5 includes interpretations of findings of the study and how they relate to the literature, limitations of

the study, recommendations for further research, implications of the study, and conclusions.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this qualitative classical Delphi study was to determine how a panel of 25 Nigerian maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. Nonprobability, purposive sampling was used to constitute the expert panel, comprised maritime practitioners involving scholars and professionals for this study. Through four survey rounds, the experts shared their views based upon a predetermined list of categories and recommendations as to the corporate governance practices required for maritime professionals to transform old-path dependence in the management of ICDs in the nation's port industry. This study was conducted to contribute new knowledge to the maritime industry regarding a consensus-based list of desirable, feasible, and important forward-looking corporate governance practices. A review of existing literature supported the position that there is currently a lack of consensus regarding effective corporate governance practices.

The results of this study indicated a consensus-based list of recommended corporate governance practice items grouped into four categories. The four categories comprised five solution items that ranked the highest of the panel's preferred corporate governance practice items for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. The five solution items were: (a) provision of adequate infrastructure to optimize cargo handling; (b) creation of efficient truck parks to rid port access roads of traffic gridlock; (c) establish a legal framework and

capacity that empowers regulators to enforce laws and policies for the maritime industry; (d) echelon of regulatory bodies in port privatization occupied by persons with ample experience in the maritime industry; and (e) creation of short courses to develop the capacity of port workers and administrative staff. The results of the study showed that 88% of the panelists rated their overall confidence level as certain or reliable in the five corporate governance practice solution items. Chapter 5 includes the study findings and comparisons to the peer-reviewed literature discussed in Chapter 2, an interpretation of the findings, limitations of the study, recommendations for future research, implications for positive social change, and conclusions.

Interpretation of Findings

In this section, I focus on interpreting the results of the study, which are those top five forward-looking corporate governance practice solution items deemed desirable, feasible, and important, to answer the research question. The panelists rated their confidence highest for these solutions. The findings of the study showed that the expert panel reached a minimum overall confidence rating of 80% certain or reliable in five consensus-based corporate governance practice items. Agreement among 22 out of 25 maritime experts (88%) on the desirability, feasibility, and importance of maritime corporate governance practices ingrained in CGIs showed support for extant literature regarding the existence of old-path dependence in the management of ICDs. The five maritime corporate governance strategies that the experts rated their overall confidence level as certain or reliable were: (a) provision of adequate infrastructure to optimize cargo handling; (b) creation of efficient truck parks to rid port access roads of traffic gridlock;

(c) establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry; (d) echelon of regulatory bodies in port privatization occupied by persons with ample experience in the maritime industry; and (e) creation of short courses to develop the capacity of port workers and administrative staff. The five solution items were ranked the highest of the expert panel's preferred corporate governance practices to transform the old-path dependence of the management of ICDs from four categories. These five items are consistent with those solutions distilled from the published literature. The remainder of this section consists of the discussion of the final study results containing each of the five corporate governance practice solutions in alignment with the extant peer-reviewed literature.

Provision of Adequate Infrastructure to Optimize Cargo Handling

The recommendations from the expert panel aligned with the peer-reviewed literature for this corporate governance practices category specific to managing congestion of cargo traffic within the port environment. The expert panel reached consensus on: "Provision of adequate infrastructure (plant and equipment) to optimize cargo handling." Port congestion in the nation's seaports is an indication of suboptimal efficiency in the cargo clearance system that has served as obstacles to port logistics and supply chain networks because of inadequate facilities (Chikere et al., 2014; Kenyon et al., 2018; Michael, 2019; Nze & Onyemechi, 2018; Okeke & Kalu, 2019; Olusegun, 2020; Onwuegbuchunam, 2020; Somuyiwa, & Ogundele, 2015). The incessant congestion in the ports resulting from inadequate cargo handling infrastructure and equipment leads to the persistent diversion of vessels scheduled for the Nigerian ports to

other ports of the neighboring countries (Chikere et al., 2014; Michael, 2019; Okeke & Kalu, 2019; Olusegun, 2020).

Providing adequate infrastructure to optimize cargo handling is desirable because it may assist the operational efficiency of the Nigeria ports, promote competition with neighboring ports, and reduce the loss of revenue to the government (Michael, 2019; Nze & Onyemechi, 2018; Okeke & Kalu, 2019; Olusegun, 2020). The literature indicates that the provision of modern port infrastructure through the government's regulatory framework for port reform is critical to fast bureaucratic process for cargo service delivery, which could enhance cargo turnaround time, and reduce port congestion that underscores the loss of revenue (Akinyemi, 2016; Chikere et al., 2014; Eleagu & Akonye, 2018; Onwuegbuchunam, 2020; Somuyiwa & Ogundele, 2015). Achieving this recommended governance practice may be problematic as one panelist indicated that port actors lack the "purposeful political will" for change in the maritime sector. The need exists for port stakeholders, including government agencies, to shun behaviors that prioritize their power over group goals and embrace initiatives for transformation (Fraser & Notteboom, 2015; Nguyen & Notteboom, 2016; Somuyiwa & Ogundele, 2015). Consensus-based initiative for providing modern maritime infrastructure may be necessary to promote inter-port competitions with the neighboring countries by reducing cargo turnaround time and eliminate port congestion (BSR, 2014; BSR, 2016; Michael, 2019; Olusegun, 2020; Taylor & Benderson, 2017).

Creation of Efficient Truck Parks to Rid Port Access Roads of Traffic Gridlock

The findings of the current study converge with the body of literature for this corporate governance practice category specific to the creation of efficient truck parks to rid port access roads of traffic gridlock that may lead to decongesting the seaports. Port access roads serve as the link for the onward shipment and outright export of cargo (including containers) between the main seaports and the hinterland (Hall & O'Brien, 2018; Nze et al., 2016). The nation's seaports have become congested, resulting from overdependence on road traffic mode for cargo movements, and they also lack integrated road networks to provide unhindered access to the hinterland (Chinedum, 2018; Michael, 2019).

The expert panel's highest consensus on creating efficient truck parks to rid port access roads of congestion is indicative of the urgent need to boost port performance and productivity that may improve cargo throughput, turnaround time, and berth occupancy rate (Michael, 2019; Nze et al., 2020). The literature indicates that efficient truck parks are integral transport facilities that contribute to managing efficient cargo flows between ports and inland destinations (Anthony & Benson, 2019; Nze et al., 2020; Okechukwu, 2015). Researchers have attributed the lack of the provision of adequate truck parks that may ease port congestion to poor institutional approaches to implementing transport policies in Nigeria (Babatunde, 2020; Nze et al., 2016; Okechukwu, 2015). However, upon implementation of relevant transport policies in the port sector, such as integrated intermodal transport systems, including truck parks, there is a higher chance of

eliminating severe congestion in the seaports (Akinyemi, 2016; Babatunde, 2020; Okechukwu, 2015).

Legal Framework and Capacity for Empowering Regulators to Enforce Laws and Policies

Current study findings converge with the literature on the expert panel recommendation for this corporate governance practices category specific to establishing a legal framework and capacity that empower port regulators to enforce laws and policies in the maritime industry. From the inception of port reform in Nigeria, the public-private partnership (PPP) governance model was the legal framework for implementing the laws and policies regarding the privatization of seaports to private investors (Akinyemi, 2016; Opawole & Jagboro, 2016). The PPP-Landlord framework has notably remained efficient and productive in delivering port services in the country of which the ICD project is an integral part (Salisu & Raji, 2017). Although the initiative of transferring public infrastructure assets including seaports and ICDs to the private sector has yielded a positive result, there are still issues of accountability and transparency among key actors in the privatization process (BSR, 2014; BSR, 2016; Dominic et al., 2015; Fakoya & Lawal, 2020; Nguyen & Notteboom, 2017; Ofuani et al., 2018; Okoroafor & Bernard, 2019). According to Akinyemi (2016) and Hansen (2018), the most significant problem that stunts the maritime industry growth is corrupt and scandalous corporate practices among key port actors because of their lack of adequate compliance-oriented measures to enforce the existing regulatory frameworks.

One of the expert panelists stressed that maritime regulatory bodies such as the NPA and NSC should be backed by adequate legislative laws. In the absence of collective action that engenders fairness and transparency, enforcing the implementation of existing maritime laws and policies among key port stakeholders and practitioners becomes difficult for port performance and efficiency (Abayomi, 2016; Anele, 2018; Benson & David, 2018; Dike & Giniwa, 2019; Igbokwe, 2015; Nwankwo & Kifordu, 2019; Nwokedi et al., 2018). The Coastal and Inland Shipping (Cabotage) Act is a typical regulatory and legal framework designed to discourage resource mismanagement among private port operators (concessionaires) in the privatization of the ICD projects (Njar & Okon, 2019; Nwekeaku & Atteh, 2016; Nwokedi et al., 2018). Compliance with the regulatory provisions of this Act may strengthen the institutional environment and the culture and ethics of conducting business in the sector if there is trust, fairness, and transparency demonstrated by the executives of maritime firms operating in port terminals (Abayomi, 2016; Anele, 2018; Benson & David, 2018; Buhari et al., 2017; Chircop et al., 2016; Dike & Giniwa, 2019; Igbokwe, 2015).

Appointment of Technocrats to the Echelon of Regulatory Bodies in Port Privatization

The recommendations from the expert panel converged with the peer-reviewed literature for this corporate governance practice category specific to appointing personnel with ample experience to the echelon of regulatory bodies in port privatization. The nation’s port privatization program requires a seamless governance approach in which leaders should appoint decision-makers who are technocrats (experts and professionals)

to regulate port administration and management with unambiguous policies (Buhari et al., 2017; Igbokwe, 2015). Despite the formulation of existing maritime policies such as the Cabotage Act, there is still evidence of the lack of technical and professional expertise, and political will by the leaders of maritime regulatory agencies to enforce implementation (Buhari et al., 2017; Nsan-Awaji, 2019). There are pervasive mediocrity and ineptitude promoted by the leaders at the echelon of regulating maritime laws and policies in the industry (Buhari et al., 2017; Igbokwe, 2015; Ugoani, 2015). This problem has led to the foreign domination of the nation's maritime trade attributed to nonfunctional or inconsistent shipping policy because these regulators lack the expertise to operate with clear-cut maritime conventions and regulations in conformity with international standards (Buhari et al., 2017; Igbokwe, 2015; Nsan-Awaji, 2019; Ugoani, 2015).

The consensus of appointing personnel with ample experience to the echelon of regulatory bodies in port privatization extends knowledge in port privatization policies literature. One of the expert panelists stressed that the placement of appropriate personnel in various regulatory functions would help in delivering effective shipping policies in the industry. Another indicated that maritime leaders functioning in regulatory capacities should demilitarize port administration and management by engaging technocrats, which could assist in addressing policy inconsistencies. Collective action with other key stakeholders may help facilitate the tenets of CGIs, such as MACN, to tackle the problem of appointing nontechnocratic leaders to the port regulatory agencies (Afolabi, 2015; BSR, 2016; NAN, 2016; Van Schoor & Luetge, 2017). Researchers have found that the

initiatives of MACN may assist key government leaders and maritime agencies to collaborate as to why it is important to change their rent-seeking behaviors in engaging nontechnocrats and make the emergence of a new path possible for efficient port privatization policy regulations (BSR, 2016; Buhari et al., 2017; Igbokwe, 2015; Ugoani, 2015; Van Schoor & Luetge, 2017).

Creation of Short Courses to Develop the Capacity of Port Workers and Administrative Staff

The last solution recommended for this corporate governance practice category is the creation of short courses to develop the capacity of port workers and administrative staff. The expert panelists rated their confidence for this corporate governance practice solution as certain and reliable. The current study findings converge with the literature. The corporate governance practice solution of developing the capacity of port workers is consistent with the focus of maritime leaders to align the agenda of port reform with the needs of key stakeholder organizations including shippers, port workers, concessionaires, and contractors (Akinyemi, 2016; Dooms et al., 2013; Fraser & Notteboom, 2015; Gerald, Ndikom, Tochi, Henry, & Nwokedi, 2019). The overall organizational effectiveness of maritime companies and agencies rests on the productivity and efficient performance of the workforce based on the abilities and level of the knowledge and skills possessed by the workforce (Gerald et al., 2019; Joseph & Chukwuedozie, 2019). The need exists for maritime leaders to organize seminars, workshops or training to sensitize and update port workers on intricate shipping operations and service delivery (Eleagu & Akonye, 2018; Gerald et al., 2019; Joseph & Chukwuedozie, 2019; Nsan-Awaji, 2019).

The consensus of developing the capacity of port workers through workshops and training extends knowledge in workforce capacity development literature. Two of the expert panelists stressed the need by maritime leaders to take a cue from the management of the Singaporean Port, where the authority has used modern technology for cargo clearances entrenched by personnel training and workshops. The current study's findings specific to workforce capacity development through workshops and training also confirm the information in the literature indicating the need for workforce motivation to achieve the set objective (Eleagu & Akonye, 2018; Nze et al., 2020; Uche, George, & Abiola, 2017). Researchers stressed the importance of workforce motivation as an integral part of human capacity development for port workers toward achieving a balance between employee satisfaction and workplace productivity (Nze et al., 2020; Uche et al., 2017). In the absence of workforce capacity development, poor employee motivation among port workers may lead to their tendency to engage in unethical behaviors such as dissension, financial crime, withdrawal of efforts, and other forms of counterproductivity (Roseline & Konya, 2019; Uche et al., 2017).

Limitations of the Study

This study had several limitations. One limitation was the unverified self-reported proficiency of the expert panelists, including the biases they might have had during the process of data collection. Although the panelists self-validated their ability to meet the expert eligibility criteria, the honesty of their responses during the survey rounds could not be confirmed. Also, the panelists' shared opinions were restricted to some extent because their experiences were limited only to the patterns of the old-path dependence of

the management of the port industry. If the panelists failed to take the survey seriously, the accuracy and consistency of their responses might have been affected (Meijering et al., 2013; Skulmoski et al., 2007). Predictions could not represent the assurances of any specific outcome, and the transferability of the findings were dependent upon readers' interpretation of whether the study's findings could apply to other contexts, situations, times, and populations (Heitner et al., 2013; Skulmoski et al., 2007).

Consistent with Delphi studies, the second limitation to the study was the dimension of anonymity among panelists that resulted in the absence of face-to-face communication characterized by the lack of potential debate or brainstorming during the survey rounds. There was no opportunity for expert interactions because panelists had to channel their responses through SurveyMonkey, which is an electronic online survey tool. The absence of debate might have concealed reasons for divergent expert responses, as the panelists could not share their opinions and clarifications for ratings and the quality of those clarifications (Heitner et al., 2013; Skulmoski et al., 2007).

The original consensus threshold, which was set at 70% based on the published Delphi literature, was another limitation in the study (Meijering et al., 2013; Skulmoski et al., 2007; Vernon, 2009). The high level of consensus for the eight corporate governance practice items ranked for importance in Round 3 led to increasing the consensus threshold to 80% or higher. Also, in Round 4, the consensus threshold was increased to a minimum of 80% for the final five items rated for confidence.

Another significant limitation that might have occurred when conducting this study was researcher bias based on lone organizing and rating of responses by the

panelists. Detailed audit trails were kept to overcome such researcher bias. The audit trails promoted dependability, or the consistency and repeatability of the findings regarding (a) how responses from the open-ended Round 1 questionnaire were analyzed and developed for solutions that comprised the Likert-items for the Round 2 and Round 3 surveys, (b) controlled feedback from panelists, and (c) data reduction analysis.

The last limitation was the delayed response rate that resulted in the attrition of nine panelists during Round 1 because of the timing of the study that coincided with the global COVID-19 pandemic. Collecting data throughout the four survey rounds might have affected the expert panelists' commitment to providing a timely response as they provided excuses to withdraw from the study because of their distress situations linked to the pandemic. The snowball sampling approach was used through a referral from the partner organization to acquire a supplemental of nine potential participants to make up the required sample size of 25.

Recommendations

Recommendations from the current study for future research are based on the findings of the current study, its strengths and weaknesses, and the current body of knowledge on the topic, as reflected in Chapter 2. A few recommendations for future research pertain to the conceptual framework, methodology, and a limitation of the current study.

Recommendations for Future Research

Recommendations stemming from the conceptual framework. The two major concepts that framed the current study are old-path dependence and corporate governance

practices. The concept of old-path dependence explained how key maritime actors remain resistant to management changes believing that a deviation from their old path and the current course of management action will compromise their political and economic interests (Dooms et al., 2013; Fraser & Notteboom, 2015). The path dependence theory was used to explain how institutional values, standards, and rules that shape the path of organizations, often create resistance to changes that would depart from historical paths (Arthur, 1989; David, 1985; Trouve et al., 2010). The concept of corporate governance practices serves as the government-sponsored interventions embedded in CGIs to overcome the old-path dependence of maritime stakeholders hindering industry growth and the nation's economy (Van Schoor & Luetge, 2017). To achieve change in this direction, maritime actors need to embrace CGIs as a new paradigm shift and commitment to break from old institutional arrangements to overcome path-dependent behaviors attributable to resource mismanagement. Case studies are research designs that are appropriate for examining bounded phenomena in natural settings within the context that they occur (Lewis, 2015; Patton, 2015; Yazan, 2015). Thus, a recommendation for future research may apply to conduct case studies within maritime organizations to examine the bounded phenomenon of old-path dependence from the perspective of the port actors who engaged in rent-seeking behaviors and to gain first-hand perspectives of the corporate governance practices necessary to curb resource mismanagement.

Recommendations stemming from the methodology. The current study focused on the opinions and judgments of an expert panel that met specific criteria but might also have possessed different backgrounds and professional experience. Corporate governance

practices are adopted across numerous fields of the maritime sector, and professionals apply governance practices in a way that is appropriate to their fields. Consistent with the maritime industry, an opportunity for further research might be relevant to conduct this type of study to explore the efficacy of corporate governance practices in related fields such as Ocean Governance (collective action to control and manage the ocean resources), and Blue Economy (sustainable technologies and infrastructure to protect the marine environment). Each field would likely result in a list of industry corporate governance practices. There would possibly be similarities among them, but there would also be distinct variations that are specific to how corporate governance practices are used in each field. Comparing those similarities would yield a universal list of corporate governance practices that are also relevant to the maritime industry.

A follow-up Delphi study similar to the current study could be an option for future research as well. The resulting solution list from the study could be used to inform panelists as to the recommended solutions forming the starting point for the Round 1 survey in a future Delphi study. The criteria for panel selection could also be adjusted as the expert panel could consist of other practitioners with expert knowledge in controlling and managing marine resources or technologies in the maritime industry. Researchers can conduct that study to compare findings for both studies in evaluating transformative corporate governance practices for industry growth.

A qualitative case study is another option for further research. Researchers can apply a case study approach to a population consisting of maritime practitioners in the port industry. Further research could include gathering descriptions of perceived

effectiveness of corporate governance practices for transforming the old-path dependence in the management of ICDs, and to determine how the descriptions may or may not align with the findings of the current study.

A recommendation stemming from a limitation. A limitation was the delayed response rate that resulted in the attrition of nine panelists during Round 1 because of the timing of the study that coincided with the global COVID-19 pandemic. Collecting data throughout the four survey rounds might have affected the expert panelists' commitment to providing timely responses and useful comments, as they provided excuses to withdraw from the study because of their distress situations linked to the pandemic. One recommendation is to conduct a follow-up study to advance the research in the decongestion of seaport terminals towards optimizing container handling infrastructure for accelerating the performance of ICDs across the country. Employing a focus-group case study approach among a homogeneous group of maritime stakeholders might be appropriate to explore how the existing access road and rail networks can be expanded and improved to decongest containerized cargo traffic in the nation's seaports. The focus group methodology assumes that stakeholder opinions are not always readily available and are open to influence by others in an interactive setting (Macnaghten, 2017).

Recommendations Stemming from the Findings

The discussion in this section is for those corporate governance practice solutions evolving from the findings of the current study, particularly areas where a lack of consensus exists in Round 2. Suggestions are included as to what types of research might

be of value to determine how those corporate governance practice solutions can become both desirable and feasible for industry implementations.

Adoption of a unified governance code. The expert panel deemed this governance solution not desirable and not feasible. The lack of consensus on the adoption of a unified governance code supported the identified gap from the literature review, which also demonstrated a lack of agreement on the adoption of a unified governance code. Research experts and the panel of experts from the current study did not agree on the adoption of a unified governance code specific to the port industry that may facilitate the enforcement of standards for financial performance disclosure by maritime leaders. Research is still needed. A qualitative case study or phenomenological approach could serve to validate the findings of the current study and explore the effect of corporate governance code frames over two separate sampling frames. A quantitative experimental study might be conducted to examine the outcomes of two samples of governance codes to compare the results of those adopted codes and the effect of unifying them to facilitate the enforcement of standards for financial performance disclosure by maritime leaders. An experimental research study can be used to examine the outcomes of two samples that are subjected to two different treatments (Brook & Arnold, 2018). Thus, a recommendation for future research is to conduct an experimental study to examine the outcomes of two different samples with two different governance codes specific to the enforcement of standards for financial performance disclosure by maritime leaders.

Discouragement of numerous public holidays disrupting port operations. The expert panel deemed this governance solution not desirable and not feasible. The existing

lack of regulatory mechanisms to improve ports' operational capacity may be the issue for which this solution was rated undesirable and unfeasible. One panelist commented that the effect of public holidays, causing cargo congestion, may become less significant if port operations are automated. The body of literature contained substantial indications of the numerous public holidays disrupting port operations leading to congestion (Chinedum, 2018; Gidado, 2015). A case study approach may be of value to explore the effects of numerous public holidays that disrupt port operations at certain seasons of the year. Researchers can conduct a case study for the intensive exploration of this recommended governance solution from various stakeholders and datasets.

Collective action initiatives for strict penalties on maritime laws violation. The expert panel deemed this governance solution not desirable and not feasible. The evidence of outdated enforcement laws for sanctions, including weak enforcement practices to investigate complaints on bribe demands and payments facilitation in shipping operations (Alkali & Imam, 2016), may be the issue for which this solution was rated undesirable and unfeasible. The body of literature contained substantial indications of this governance solution of collective action initiatives for strict penalties such as jail term sentence to deter future offenders violating maritime laws (Alkali & Imam, 2016; BSR, 2014; Hansen, 2018). Feasibility of this recommended governance solution, however, is an issue as one panelist commented that political interference by maritime leaders over the investigations of complaints on bribe demands and payments facilitation remains a challenge. Researchers can conduct an exploratory case study or a cross-

sectional descriptive quantitative study to investigate how maritime stakeholders can use collective action initiatives for criminalizing future violations of maritime laws.

Implications

Positive Social Change

The findings from the expert panelists' views on the desirability, feasibility, and importance of forward-looking corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise, may contribute to positive social change in a variety of ways. The recommended corporate governance practices identified in this study may affect government policies and strategies on the port reform program towards promoting economic growth in Nigeria. Failure to utilize sector-specific CGIs like the MACN could harm promoting social change if path-dependent behaviors that are consistent with widespread revenue leakages, induced by corruption among port stakeholders are not curbed (Alkali & Imam, 2016; Fraser & Notteboom, 2016). The potential for improved collaboration between the government, maritime industry leaders, port practitioners, and other key stakeholders could have implications for positive social change. Through collective action fostered by informed decision-making, private investors and shippers would be encouraged to conduct their businesses to revamp the ICD project from its present state of abandonment resulting from the compromise of anti-corruption policies. Salvaging the ICD project could attract a host of economic benefits to the society, such as job creation, export promotion, diversification of the economy, and increased foreign

exchange earnings (Benson & David, 2018; Elisha, 2019; Onwuegbuchunam et al., 2017).

Another implication of this study is that its outcomes may assist the government and maritime agencies in achieving effective governance systems and processes for overall port performance through coordinated governance initiatives. This strategy could have positive effects on the resolution of corporate governance issues that relate to shareholder influence, the composition of boards of directors, chief executives, and senior managers of maritime firms, and corporate social responsibility (Laxe et al., 2016). Also, maritime leaders could use the tenets of CGIs to compare or assess ports' economic performance through value-added and employment metrics (Nguyen & Notteboom, 2017). These tenets could be useful in tackling key social challenges such as threats to the safety and well-being of the onboard crew of vessels arising from the facilitation payments and bribes by various public officials (Benderson, 2016; Fraser & Notteboom, 2015; Hansen, 2018). Overcoming these social challenges could promote prompt cargo service delivery and strengthen employee satisfaction and retention rates for organizational and port performance.

Methodological and Theoretical Implications

Although the tenets of CGIs portend a new paradigm shift and commitment to break from old institutional arrangements of maritime actors to overcome path-dependent behaviors, it has become evident that the desired results for change are underway (BSR, 2014; BSR, 2016; Taylor & Benderson, 2017; Van Leeuwen, 2015). Public and private sector organizations such as academia, governments, and society are no exceptions as to

investigating how rent-seeking behaviors consistent with collusive corporate corruption practices might be reduced in the nation's maritime industry (Donwa, et al., 2015; Eleagu & Akonye, 2018; Eski & Buijt, 2016; Somuyiwa & Ogundele, 2015; Suarez-Aleman et al., 2016; Van Schoor & Luetge, 2017). Overcoming collusive corporate corruption practices by maritime leaders is critical to revamping the ICD facilities and boosting the revenue generation for the government (Abdul et al., 2017; Ebosele, 2015; Hansen, 2018; Igbokwe, 2016).

The current study was conducted to develop a consensus-based list of desirable, feasible, and important forward-looking corporate governance practices that may yield the desired results for the industry. The resulting list of recommended governance practices from this study can be utilized by port practitioners to create a robust environment through a collective action that will accelerate industry growth and boost the nation's economy. The Delphi design of this study helped to narrow the gap in the literature by providing maritime scholars and practitioners with a consensus-based list of corporate governance practices grouped into six broader categories. The methodology could also be adopted for future industry updates to the research, or to other areas of study where the goal is to work toward a consensus.

The findings of the current study reinforce that there has been a lack of consensus evident in the literature regarding the efficacy of maritime corporate governance practices embedded in CGIs to address a problem effectively. The study's findings supported the conceptual framework for evaluating the research phenomenon and recommending a list of desirable, feasible, and important forward-looking corporate governance practices.

Path dependence theory can be applied to understanding the convergence of various evolving corporate governance practices, as well as to how maritime organizations, perceived as management systems, should respond to rapid industry changes and address the resulting governance gaps. The conceptual framework, consistent with concepts related to path dependence and organizational change, was an applicable approach to this study. Path dependence was applied to institutional arrangements ingrained in paradigm shifts for new paths, and organizational change applied to individual development and organizational performance. The implications for the recommended corporate governance practices tie into path dependence and organizational change theories. Another implication of the findings from this study is that the knowledge, experience, and expertise of a practitioner are critical to advancing the literature because the expert panelists were able to recommend new corporate governance practices that satisfied the established levels of consensus.

Recommendations for Practice

There was evidence of a lack of consensus in the Nigerian maritime industry regarding the efficacy of maritime corporate governance practices ingrained in CGIs (Afolabi, 2015; BSR, 2016; NAN, 2016; Van Schoor & Luetge, 2017). Also, there is a gap in the literature regarding what kind of forward-looking corporate governance practices should be included on the recommended list (Akinyemi, 2016; Fraser & Notteboom, 2016; Van Schoor & Luetge, 2017). Scholars and practitioners discussed future trends in the industry, but there are no current studies that take account of future trends when defining additional corporate governance practices (Akinyemi, 2016; Fraser

& Notteboom, 2016; Van Schoor & Luetge, 2017). Some of these gaps in the literature were closed in this study as a list of recommended forward-looking corporate governance practices developed for maritime practitioners and professionals. The results of this study could be used as a resource for collaborative decision-making and strategy development between maritime organizations and academia as well.

An important area of recommendation for practice pertains to maritime leaders utilizing the list of five desirable, feasible, and important forward-looking corporate governance practice solutions that evolved from the findings of this current study. Those solutions were derived from the rich, diverse, and practical knowledge of the expert panel of this study, who were immersed in the phenomenon (Avella, 2016; Brady, 2015). The expert panelists deemed the governance solutions desirable, feasible, and important, and 88% of the experts were certain or reliable in the efficacy of the solutions to restructure the old-path dependence in the management of ICDs into a sustainable enterprise. A need for recommendation exists that maritime leaders follow this order of implementing these solutions if implementing all at once is not possible.

1. Maritime industry leaders should provide a legal framework and capacity for empowering regulators to enforce laws and policies in the industry.
2. Maritime industry leaders should appoint technocrats to the echelon of regulatory bodies in the port privatization program.
3. Maritime industry leaders should provide adequate infrastructure to optimize cargo handling for port decongestion.

4. Maritime industry leaders should create efficient truck parks to rid port access roads of traffic gridlock.
5. Maritime industry leaders should create short courses to develop the capacity of port workers and administrative staff.

Conclusions

The social problem addressed in Chapter 1 was the introduction of CGIs has not yielded the desired results for change in the Nigerian maritime industry (BSR, 2016; Hansen, 2018). The specific management problem was the failure of Nigerian maritime practitioners to break away from old-path dependence for the administration and operation of ICDs, which impedes industry growth and development (BSR, 2016; Van Schoor & Luetge, 2017). The goal of this qualitative classical Delphi study was to determine how a panel of Nigerian maritime industry experts views the desirability, feasibility, and importance of corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise. 88% of the expert panel members indicated their overall confidence rating was certain or reliable, reflecting a consensus on the desirability, feasibility, and importance of five forward-looking corporate governance practices for successfully transforming the old-path dependence of the management of ICDs into a sustainable enterprise.

Answers to this study's research questions led to some conclusions as outlined in the interpretations section of this chapter. Maritime practitioners generally lack the consensus on the efficacy of maritime corporate governance practices ingrained in CGIs to transform the old-path dependence of the management of ICDs into a sustainable

enterprise. Implementing one or more of the five corporate governance practice solutions identified by the expert panel may greatly revamp the ICD project from its present state of abandonment, and create a robust environment through a collective action that will accelerate industry growth and boost the nation's economy.

The results of this study are essential to the fields of leadership and enterprise applications in the direction of building on the body of knowledge for both disciplines and effecting positive social change for maritime practitioners, professionals, and society. Leaders can benefit from this study by applying the new knowledge from this study towards creating paradigm shifts from their old behavioral paths and make the emergence of a new path possible for accelerating industry growth.

References

Aaltonen, K., Ahola, T., & Artto, K. (2017). Something old, something new: Path dependence and path creation during the early stage of a project. *International Journal of Project Management, 35*(5), 749-762. doi:10.1016/j.ijproman.2017.03.004

Abata, M. A., & Migiro, S. O. (2016). Corporate governance and management of earnings: Empirical evidence from selected Nigerian-listed companies. *Journal of Economics and Behavioral Studies, 8,* 54-74. doi:10.21511/imfi.13(2-1).2016.07

Abatecola, G. (2014). Untangling self-reinforcing processes in managerial decision making: Co-evolving heuristics? *Management Decision, 52*(5), 934-949. doi:10.1108/MD-10-2013-0543

Abayomi, A. A. (2016). The anatomy of government neglect in the Nigerian maritime industry. *Africa Policy Journal*, *12*, 45-60. Retrieved from https://apj.hkspublications.org/

Abbes, S. (2015). Seaport competitiveness: A comparative empirical analysis between North and West African countries using principal component analysis. *International Journal of Transport Economics*, *42*(3), 289-314. Retrieved from http://www.ijte.org/

Abdoulkarim, H. T., Fatouma, S. H., & Munyao, E. M. (2019). Dry Ports in China and West Africa: A comparative study. *American Journal of Industrial and Business Management, 9*(03), 448-467. doi:10.4236/ajibm.2019.93030

Abdul, N. S. F., Abdul, S., & Rasdi, R. (2017). Decision strategies for boosting the

maritime economy in Malaysia due to the opening of the Northern Sea route. *Journal of Maritime Research*, *13*(3). Retrieved from https://www.jmr.unican.es

Aburto, J. A., Gaymer, C. F., & Cundill, G. (2017). Towards local governance of marine resources and ecosystems on Easter Island. *Aquatic Conservation: Marine and Freshwater Ecosystems*, *27*(2), 353-371. doi:10.1002/aqc.2665

Adesina, O. S. (2016). Nigeria and the burden of corruption. *Canadian Social Science*, *12*(12), 12-20. doi:10.3968/9039

Adonye, I. K., Deniel, B., & Dogood, A. I. (2019). The role of private off dock terminals on port efficiency: A study of Sifax Off Dock Nig. Ltd. *International Journal of Engineering and Management Research (IJEMR)*, *9*(5), 93-103. doi:10.31033/ijemr.9.5.14

Afolabi, T. O. (2015, July). *Building economic capacity through maritime infrastructure development*. Paper presented at the NIMAREX Annual Exhibition and Conference, Lagos, Nigeria. Retrieved from http://sifaxgroup.com

Ago, T. E., Yang, H., & Enam, T. D. (2016, March). A review of port governance in Ghana. In *Measuring Technology and Mechatronics Automation (ICMTMA), 2016 Eighth International Conference on* (pp. 26-31). IEEE.

Aina, K., & Adejugbe, B. (2015). A review of corporate governance codes and best practices in Nigeria. *Journal of Law, Policy, and Globalization*, *38*, 78-86. Retrieved from http://heinonline.org

Ajibo, C. C., & Ajibo, K. I. (2019). Mandatory versus discretionary rule dichotomy in the

harmonization of corporate governance codes: Lessons for Nigeria. *Journal of African Law*, *63*(3), 385-411. Retrieved from https://www.idosr.org/

Akinyemi, Y. C. (2016). Port reform in Nigeria: Efficiency gains and challenges. *GeoJournal*, *81*(5), 681-697. doi:10.1007/s10708-015-9657-z

Akuki, A. (2016, March 9). Maritime industry capable of sustaining Nigeria's economy. *Independent Newspapers*. Retrieved from https://independent.ng

Albert, A. T., & Okoli, F. C. (2016). EFCC and the politics of combating corruption in Nigeria (2003-2012). *Journal of Financial Crime*, *23*(4), 725-747. doi:10.1108/JFC-04-2015-0024

Alekhuogie, N. (2016, May 13). Nigeria: Enhancing inland waterways for more efficient transportation. *This Day*. Retrieved from www.thisdaylive.com

Alkali, M. Y., & Imam, M. I. (2016). Accountability and environmental sustainability: Nigerian maritime experience. *Asian Journal of Economics and Empirical Research*, *3*(1), 1-5. doi:10.20448/journal.501/2016.3.1/501.1.1.5

Amodu, N. (2018). Investing in free zones in Nigeria: An examination of its governance and operational framework. *The Gravitas Review of Business and Property Law*, *9*(1), 31-43. Retrieved from https://eprints.soas.ac.uk/

Andreou, P. C., Louca, C., & Panayides, P. M. (2014). Corporate governance, financial management decisions, and firm performance: Evidence from the maritime industry. *Transportation Research Part E: Logistics and Transportation Review*, *63*, 59-78. doi:10.1016/j.tre.2014.01.005

Anele, K. K. (2018). A study of the cabotage policy in Nigeria from the prisms of ship

acquisition and shipbuilding. *WMU Journal of Maritime Affairs*, *17*(1), 91-117. doi:10.1007/s1343

Anney, V. N. (2014). Ensuring the quality of the findings of the qualitative research: Looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies, 5*(2), 272-281. Retrieved from http://jeteraps.scholarlinkresearch.com/

Anthony, A. A., & Benson, I. A. (2019). Freight safety in freight forwarding business in Nigeria: The challenges and preventive measure. *Current Journal of Applied Science and Technology*, *38*(5), 1-10. doi:10.9734/CJAST/2019/v38i530379

Anumihe, I. (2016a, September 16). Maritime concession: Reasons behind revenue leakages in Nigerian ports. *The Sun News*. Retrieved from http://sunnewsonline.com

Anumihe, I. (2016b, September 16). Recession: Maritime can reflate Nigeria's economy. *The Sun News*. Retrieved from http://sunnewsonline.com

Arof, A. M. (2015). The application of a combined Delphi-AHP method in maritime transport research: A review. *Asian Social Science, 11*(23), 73-82. doi:10.5539/ass.v11n23p73

Arthur, W. B. (1989). Competing technologies, increasing returns, and lock-in by historical events. *The Economic Journal, 99*(394), 116-131. doi:10.2307/2234208

Augustin, D. S., & Akossiwa, D. L. (2018). SWOT Analysis for developing dry ports in Togo. *American Journal of Industrial and Business Management*, *8*(6), 1407-1417. doi:10.4236/ajibm.2018.86094

Avella, J. R. (2016). Delphi panels: Research design, procedures, advantages, and challenges. *International Journal of Doctoral Studies*, *11*, 305-321. doi:10.28945/3561

Babatunde, I. A. (2020). The policy institutional approach to transport failure in Nigeria. *Open Access Library Journal, 7*(1), 1-18. doi:10.4236/oalib.1105996

Babatunde, S. O., & Perera, S. (2017). Cross-sectional comparison of public-private partnerships in transport infrastructure development in Nigeria. *Engineering, Construction and Architectural Management*, *24*(6), 875-900. doi: 10.1108/ECAM-11-2015-0186

Badejo, B. A., & Solaja, O. M. (2017). The Nigerian seaports and development (1900-2015): Historical perspectives and dynamics. Retrieved from https://isdsnet.com/ijds

Balla, V. N., China, F. A., Fouda, R. A. N., & Bissemb, C. D. (2016). Assessment of ports competitiveness in West and Central African sub-regions using Priest Analytic Hierarchy process: The defies & incompetence of the Port of Douala (Cameroon). *Open Journal of Applied Sciences*, *6*(02), 112-122. doi:10.4236/ojapps.2016.62012

Bardecki, M. J. (1984). Participants' response to the Delphi method: An attitudinal perspective. *Technological Forecasting and Social Change, 25*(3), 281-292. doi:10.1016/0040-1625(84)90006-4

Barnes-Dabban, H., van Koppen, C. K., & van Tatenhove, J. P. (2018). Regional convergence in environmental policy arrangements: A transformation towards

regional environmental governance for West and Central African ports? *Ocean & Coastal Management, 163,* 151-161. doi:10.1016/j.ocecoaman.2018.06.013

Barnes-Dabban, H., van Koppen, K., & Mol, A. (2017). Environmental reform of West and Central Africa ports: The influence of colonial legacies. *Maritime Policy &Management, 44*(5), 565-583. doi:10.1080/03088839.2017.1299236

Benderson, M. (2016). The Maritime Anti-Corruption Network: Tackling corruption through collective action. *Journal of Sustainable Mobility, 3*(2), 94-100. doi:10.9774/GLEAF.2350.2016.de.00006

Bennouna, C., Mansourian, H., & Stark, L. (2017). Ethical considerations for children's participation in data collection activities during humanitarian emergencies: A Delphi review. *Conflict and Health, 11*(1), 5-15. doi:10.1186/s13031-017-0108-y

Benson, I. A., & David, O. O. (2018). An empirical investigation of the impact of effective shipping policy instrument on the development of the Nigeria maritime industry. *African Journal of Economics and Sustainable Development, 1*(1), 79-83.Retrieved from https://abjournals.org/

Berger, R. (2015). Now I see it, now I don't: Researcher's position and reflexivity in qualitative research. *Qualitative Research, 15*(2), 219-234. doi:10.1177/1468794112468475

Berthod, O., Grothe-Hammer, M., & Sydow, J. (2017). Network ethnography: A mixed-method approach for the study of practices in inter-organizational settings. *Organizational Research Methods, 20*(2), 299-323. Retrieved from https://s3.amazonaws.com

Bhattacharya, J. (2017). The sea of changes: Shifting trajectories across the Bay of Bengal. *Asian Politics & Policy, 9*(2), 245-267. doi:10.1111/aspp.12321

Birks, M., & Mills, J. (2015). *Grounded theory: A practical guide*. Thousand Oaks, CA: Sage Publications.

Bolman, L. G., & Deal, T. E. (2013). *Reframing organizations: Artistry, choice, and leadership* (5th ed.). San Francisco, CA: Jossey-Bass.

Brady, S. R. (2015). Utilizing and adapting the Delphi method for use in qualitative research. *International Journal of Qualitative Methods, 14*(5), 1-6. doi:10.1177/1609406915621381

Brook, R. J., & Arnold, G. C. (2018). *Applied regression analysis and experimental design*. Routledge: CRC Press.

Brooks, M. R., & Cullinane, K. (2007). *Devolution, port governance, and port performance*. (1st ed.). Amsterdam, Netherlands: Elsevier.

Brooks, M. R., Cullinane, K. P., & Pallis, A. A. (2017). Revisiting port governance and port reform: A multi-country examination. *Research in Transportation Business & Management*, (22), 1-10. doi:10.1016/j.rtbm.2017.02.005

BSR. (2014). Corruption risk assessment in the Nigerian port sector: MACN executive summary. Retrieved from https://www.bsr.org

BSR. (2016). MACN impact report 2016. Retrieved from https://www.bsr.org

Buhari, S. O., Okeke, O. K., & Samuel, M. W. (2017). Critical assessment of the maritime industry in Nigeria: Challenges and prospects of policy issues. *African Journal for the Psychological Studies of Social Issues, 20*(3), 114-131. Retrieved

from http://ajpssi.org

Caldeirinha, V., Felício, J. A., & da Cunha, S. F. (2017). Government policies and Portuguese port governance in the period from 2005 to 2015. *Research in Transportation Business & Management, 22*, 11-20. doi:10.1016/j.rtbm.2016.11.004

Cecere, G., Corrocher, N., Gossart, C., & Ozman, M. (2014). Lock-in and path dependence: An evolutionary approach to eco-innovation. *Journal of Evolutionary Economics, 24*(5), 1037-1065. doi:10.1007/s00191-014-0381-5

Chikere, C. A., Ibe, C. C., Stephens, M. S., Nze, O. N., & Ukpere, W. I. (2014). Motivating factors for cargo diversion from Nigerian ports to neighboring ports. *Journal of Economics, 5*(1), 77-86. doi:10.1080/09765239.2014.11884986

Chinedum, O. (2018). Port congestion determinants and impacts on logistics and supply chain network of five African ports. *Journal of Sustainable Development of Transport and Logistics, 3*(1 (4)), 70-82. doi:10.14254/jsdtl.2018.3-1.7

Chircop, A., Dzidzornu, D., & Oguamanam, C. (2016). Ocean law reform: A multi-level comparative law analysis of Nigerian maritime zone legislation. *Marine Policy, 67*, 60-75. doi:10.1016/j.marpol.2016.01.012

Coenen, L., Moodysson, J., & Martin, H. (2015). Path renewal in old industrial regions: Possibilities and limitations for regional innovation policy. *Regional Studies, 49*(5), 850-865. doi:10.1080/00343404.2014.979321

Cope, D. (2014). Methods and meanings: Credibility and trustworthiness of qualitative research. *Oncology Nursing Forum, 41*(1), 89-91. doi:10.1188/14.ONF.89-91

Da Cruz, M. R. P., Ferreira, J. J., & Azevedo, S. G. (2013). Key factors of seaport competitiveness based on the stakeholder perspective: An Analytic Hierarchy Process (AHP) model. *Maritime Economics & Logistics*, *15*(4), 416-443. doi: 10.1057/mel.2013.14

Dalkey, N. C., & Helmer, O. (1963). An experimental application of the Delphi method to the use of experts. *Management Science, 9*(3), 458 - 468. Retrieved from https://www.rand.org

David, P. A. (1985). Clio and the economics of QWERTY. *The American Economic Review, 75*(2), 332-337. Retrieved from http://www.jstor.org

Davidson, P. (2013). The Delphi technique in doctoral research: Considerations and rationale. *Review of Higher Education and Self-Learning, 6*(22), 53-65. Retrieved from https://research.phoenix.edu/publication/delphi-technique-doctoral-research considerations-and-rationale

Davies, E., Martin, J., & Foxcroft, D. (2016). Development of an adolescent alcohol misuse intervention based on the prototype willingness model: A Delphi study. *Health Education*, *116*(3), 275-291. doi:10.1108/HE-01-2015-0006

Day, J., & Bobeva, M. (2005). A generic toolkit for the successful management of the Delphi studies. *Electronic Journal of Business Research Methods, 3*(2), 103-116. doi:10.1.1.126.426

De Langen, P. W. (2006). Stakeholders, conflicting interests, and governance in port clusters. *Research in Transportation Economics, 17*, 457-477. doi:10.1016/S0739-8859(06)17020-1

De Langen, P. W., & Van der Lugt, L. M. (2017). Institutional reforms of port authorities in the Netherlands: The establishment of port development companies. *Research in Transportation Business & Management, 22,* 108-113. doi:10.1016/j.rtbm.2016.12.007

De Loe, R. C., Melnychuk, N., Murray, D., & Plummer, R. (2016). Advancing the state of policy Delphi practice: A systematic review evaluating methodological evolution, innovation, and opportunities. *Technological Forecasting and Social Change, 104,* 78-88. doi:10.1016/j.techfore.2015.12.009

De Martino, P. (2016). Land in Limbo: Understanding planning agencies and spatial development at the interface of the Port and City of Naples. *International Planning History Society Proceedings*, *17*(3), 203-216. doi:10.7480/iphs.2016.3.1262

Diamond, I. R., Grant, R. C., Feldman, B. M., Pencharz, P. B., Ling, S. C., Moore, A. M., & Wales, P. W. (2014). Defining consensus: A systematic review recommends methodologic criteria for reporting of Delphi studies. *Journal of Clinical Epidemiology*, *67*(4), 401-409. doi:10.1016/j.jclinepi.2013.12.002

Diaz, J. M., Warner, L. A., & Webb, S. T. (2018). Outcome framework for school garden program development and evaluation: A Delphi approach. *Journal of Agricultural Education*, *59*(2). 143-165. doi:10.5032/jae.2018.02143

Dike, S., & Giniwa, P. G. (2019). An appraisal of the Nigerian legislation and institutions governing maritime environment. *African Journal of International Energy and Environmental Law, 3*(3), 173-188. doi:10.2139/ssrn.3514479

Dominic, M. U., Ezeabasili, A. C. C., Okoro, B. U., Dim, N. U., & Chikezie, G. C. (2015). A review of public-private partnership on some development projects in Nigeria. *History, 4*(3). Retrieved from www.ijaiem.org

Donwa, P. A., Mgbame, C. O., & Julius, O. M. (2015). Corruption in the oil and gas industry: Implication for economic growth. *European Scientific Journal, ESJ*, *11*(22). Retrieved from http://eujournal.org

Dooms, M., Verbeke, A., & Haezendonck, E. (2013). Stakeholder management and path dependence in large-scale transport infrastructure development: The port of Antwerp case (1960–2010). *Journal of Transport Geography, 27*, 14-25. doi:10.1016/j.jtrangeo.2012.06.002

Dungore, P., & Joshi, V. (2014). Funding transport infrastructure at a dry port–with special reference to Nagpur: A stocktake on MIHAN and CONCOR. *Asian Journal of Management Science and Applications*, *1*(2), 189-215. doi:10.1504/AJMSA.2014.063389

Ebosele, M. (2015, July 29). Revenue from the maritime sector critical to economic development. *The Guardian*. Retrieved from https://guardian.ng

Eleagu, G. I., & Akonye, E. J. (2018). Seaports administration in Nigeria: A Study of Apapa Port Complex. *European Scientific Journal, ESJ, 14*(17). doi:10.19044/esj.2018.v14n17p281

Elisha, O. D. (2019). The Nigeria blue economy: Prospects for economic growth and challenges. *International Journal of Scientific Research in Education, 12*(5), 680-699. Retrieved from http://www.ijsre.com

Elo, S., Kaariainen, M., Kanste, O., Polkki, T., Utriainen, K., & Kyngas, H. (2014). Qualitative content analysis: A focus on trustworthiness. *Sage Open.* 1-10. doi:10.1177/2158244014522633

Eme, O. I., Chukwurah, D. C., & Iheanacho, E. N. (2015). Addressing revenue leakages in Nigeria. *Arabian Journal of Business and Management Review (Oman Chapter), 5*(4), 1-19. Retrieved from https://eiti.org

Emerson, R. W. (2015). Convenience sampling, random sampling, and snowball sampling: How does sampling affect the validity of research? *Journal of Visual Impairment & Blindness, 109*(2), 164-168. Retrieved from http://www.afb.org

Eniola, J. O., Njoku, I., Oluwatosin, A. F., & Okoko, E. (2014). Performance evaluation of Nigerian ports: Pre and post concession eras. *Civil and Environmental Research, 6*(2). 1- 13. Retrieved from www.iiste.org

Eski, Y., & Buijt, R. (2016). Dockers in drugs: Policing the illegal drug trade and port employee corruption in the port of Rotterdam. *Policing: A Journal of Policy and Practice, 11*(4), 371-386. doi:10.1093/police/paw044

Faajir, A., & Zidan, Z. H. (2016). An analysis of the issues and challenges of transportation in Nigeria and Egypt. *The Business & Management Review*, *7*(2), 18-29. Retrieved from http://www.abrmr.com

Fakoya, M. B., & Lawal, A. B. (2020). Effect of environmental accounting on the quality of accounting disclosures of shipping firms in Nigeria. *The Journal of Accounting and Management, 10*(1). 15-26. Retrieved from http://journals.univ-danubius.ro/

Fazi, S., & Roodbergen, K. J. (2018). Effects of demurrage and detention regimes on dry-

port-based inland container transport. *Transportation Research Part C: Emerging Technologies, 89*, 1-18. doi:10.1016/j.trc.2018.01.012

FDT. (2009). The dry port - concept, and perspectives. Aalborg: StratMoS WP C. Retrieved from http://archive.northsearegion.eu

Ferrari, C., Parola, F., & Tei, A. (2015). Governance models and port concessions in Europe: Commonalities, critical issues, and policy perspectives. *Transport Policy, 41*, 60-67. doi:10.1016/j.tranpol.2015.03.012

Finke, S., & Kotzab, H. (2017). An inland-depots-for-empty-containers-model for the hinterland. *Maritime Business Review*, *2*(2), 126-141. doi:10.1108/MABR-10-2016-0030

Fletcher, A. J., & Marchildon, G. P. (2014). Using the Delphi method for qualitative, participatory action research in health leadership. *International Journal of Qualitative Methods, 13*(1), 1–18. doi:10.1177/160940691401300101

Fraser, D., & Notteboom, T. (2015). Institutional development paths in seaports: The Southern African case. *European Journal of Transport and Infrastructure Research*, *15*(4), 506-535. Retrieved from https://www.tudelft.nl

Fraser, D., & Notteboom, T. (2016). Port development in Sub-Saharan Africa: Competitive forces, port reform, and investment challenges. In *Dynamic Shipping and Port Development in the Globalized Economy* (pp. 53-78). Palgrave Macmillan, London. doi:10.1057/9781137514233_3

Funke, J., & Kopfer, H. (2016). A model for a multi-size inland container transportation problem. *Transportation Research Part E: Logistics and Transportation*

Review, *89*, 70-85. doi:10.1016/j.tre.2016.02.010

Gamassa, P. K. P. O., & Chen, Y. (2017, June). Port governance in Ivory Coast. In *Service Systems and Service Management (ICSSSM), 2017 International Conference on* (pp. 1-5). IEEE.

Gausdal, A. H., Czachorowski, K. V., & Solesvik, M. Z. (2018). Applying blockchain technology: Evidence from Norwegian companies. *Sustainability*, *10*(6), 1-16. doi:10.3390/su10061985

Gerald, J. T., Ndikom, O., Tochi, N., Henry, O., & Nwokedi, T. (2019). Challenges of local human capacity development in Nigeria's maritime industry. *International Journal of Scientific & Engineering Research, 10*(3), 931-1004. Retrieved from https://www.ijser.org/

Giannakopoulou, E. N., Thalassinos, E. I., & Stamatopoulos, T. V. (2016). Corporate governance in shipping: An overview. *Maritime Policy & Management*, *43*(1), 19-38. doi:10.1080/03088839.2015.1009185

Gidado, U. (2015). Consequences of port congestion on the logistics and supply chain in African ports. *Developing Country Studies*, *5*(6), 160-167. Retrieved from http://www.ciltinternational.org

Gill, A. M., & Williams, P. W. (2014). Mindful deviation in creating a governance path towards sustainability in resort destinations. *Tourism Geographies, 16*(4), 546-562. doi:10.1080/14616688.2014.925964

Gray, J. A., & Truesdale, J. (2015). A Delphi study on staff bereavement training in the intellectual and developmental disabilities field. *Intellectual and Developmental*

Disabilities, *53*(6), 394-405. doi:10.1352/1934-9556-53.6.394

Grey, E. (2016, September 11). Nigeria ramps up port anti-corruption. *Ship Technology*. Retrieved from https://www.ship-technology.com

Ha, M. H., Yang, Z., Notteboom, T., Ng, A. K., & Heo, M. W. (2017). Revisiting port performance measurement: A hybrid multi-stakeholder framework for the modeling of port performance indicators. *Transportation Research Part E: Logistics and Transportation Review, 103*, 1-16. doi:10.1016/j.tre.2017.04.008

Habibi, A., Sarafrazi, A., & Izadyar, S. (2014). Delphi technique theoretical framework in qualitative research. *The International Journal of Engineering and Science, 3*(4), 8-13. Retrieved from https://pdfs.semanticscholar.org

Hall, P., & O'Brien, T. (2018). Trucking regulation as a critical chain asset in port complexes. *Research in Transportation Business & Management, 26*, 122-127. doi:10.1016/j.rtbm.2018.04.002

Hansen, H. K. (2018). Policing corruption post-and pre-crime: Collective action and private authority in the maritime industry. *Indiana Journal of Global Legal Studies*, *25*(1), 131-156. doi:10.2979/indjglolegstu.25.1.0131

Haralambides, H. (2017). Globalization, public sector reform, and the role of ports in international supply chains. *Maritime Economics & Logistics, 19*(1), 1-51. doi:10.1057/s4127

Havenga, J., Simpson, Z., & Goedhals-Gerber, L. (2017). International trade logistics costs in South Africa: Informing the port reform agenda. *Research in Transportation Business & Management, 22*, 263-275.

doi:10.1016/j.rtbm.2016.08.006

Heiko, A. (2012). Consensus measurement in Delphi studies: Review and implications for future quality assurance. *Technological Forecasting and Social Change, 79*(8), 1525-1536. doi:10.1016/j.techfore.2012.04.013

Heitner, K. L., Kahn, A. E., & Sherman, K. C. (2013). Building consensus on defining the success of diversity work in organizations. *Consulting Psychology Journal: Practice and Research, 65*(1), 58. doi:10.1037/a0032593

Holmen, A. K. T., & Fosse, J. K. (2017). Regional agency and constitution of new paths: A study of agency in the early formation of new paths on the west coast of Norway. *European Planning Studies*, *25*(3), 498-515. doi:10.1080/09654313.2016.1276159

Hough, D. (2017). International approaches to tackling corruption: What works and what doesn't? *Frontiers of Law in China*, *12*(3), 339-354. doi:10.3868/s050-006-017-0019-5

Hsu, C., & Sandford, B. (2007). The Delphi technique: Making sense of consensus. *Practical Assessment, Research & Evaluation, 12*(10), 1-8. Retrieved from http://pareonline.net

Huge, J., Van Puyvelde, K., Munga, C., Dahdouh-Guebas, F., & Koedam, N. (2018). Exploring coastal development scenarios for Zanzibar: A local microcosm-inspired Delphi survey. *Ocean & Coastal Management*, *158*, 83-92. doi:10.1016/j.ocecoaman.2018.03.005

Huo, W., Zhang, W., & Chen, P. S. L. (2018). Recent development of Chinese port

cooperation strategies. *Research in Transportation Business & Management, 26*, 67-75. doi:10.1016/j.rtbm.2018.01.002

Igbokwe, M. (2015, June 11). The challenges of implementing the cabotage act. *Gavel International*. Retrieved from http://gavelinternational.org

Igbokwe, M. (2016, August 23). Revenue from the maritime sector can surpass earnings from crude oil. *This Day*. Retrieved from http://www.thisdaylive.com

Ilnytskyy, D., Zinchenko, S., Savych, O., & Yanchetskyy, O. (2018). Analysis of seaports development strategies: Science, technology, education, and marketing. *Technology audit and production reserves*, (3 (4)), 10-24. doi:10.15587/2312-8372.2018.133938

Infrastructure Concession Regulatory Commission. (2013). PPP Project report, Published on Friday 17 May 2013. Retrieved from www.f.pppn.org

International Chamber of Shipping. (2016, January 31). Key facts: Shipping and World Trade. Retrieved from http://www.ics-shipping.org/shippingfacts/shipping-facts

Izaryk, K., & Skarakis-Doyle, E. (2017). Using the Delphi technique to explore complex concepts in speech-language pathology: An illustrative example from children's social communication. *American Journal of Speech-Language Pathology, 26*(4), 1225-1235. doi:10.1044/2017_AJSLP-16-0046.

Jeevan, J., Chen, S. L., & Cahoon, S. (2018). Determining the influential factors of dry port operations: Worldwide experiences and empirical evidence from Malaysia. *Maritime Economics & Logistics, 20*(3), 476-494. doi:10.1057/s41278-017-0063-y

Jeevan, J., Chen, S. L., & Lee, E. S. (2015). The challenges of Malaysian dry ports development. *The Asian Journal of Shipping and Logistics*, *31*(1), 109-134. doi:10.1016/j.ajsl.2015.03.005

Joseph, A. E., & Chukwuedozie, U. P. (2019). Ports authority and implementation of the national policy in the international trade practices: Issues and prospect in the 21st Century. *International Journal of Science and Engineering Invention*, *5*(4), 76-84. doi:10.23958/ijsei/vol05-i04/154

Julius, L. C., & Odiegwu, C. L. (2019). Effect of liner shipping on container terminal performance of Apapa and Onne ports in Nigeria. *International Journal of Science and Research, 8*(10), 1336-1353. Retrieved from https://www.ijsr.net/

Kangereha, D. (2018, February 2). Stakeholders meet in Nigeria over the Kaduna inland dry port efficiency. *Construction Review*. Retrieved from https://constructionreviewonline.com

Kanter, R. M., Stein, B. A., & Jick, T. D. (1992). *The challenge of organizational change*. New York, NY: Free Press.

Kenyon, G. N., Goldsmith, M., Neureuther, B. D., & Zhou, D. (2018). Improving the return on investment in ports: Opportunities in data management. *Maritime Economics & Logistics*, *20*(4), 514-530. doi:10.1057/s41278-017-0078-4

Khiem, B. (2017). Port authority models and application possible in Vietnam. *Journal of Economics, Business, and Management, 5*(3), 154-159. doi:10.18178/joebm.2017.5.3.504

Kim, C. H., & Yeo, K. (2018). Beyond consensus: A review of Delphi research published

in Malaysian social science journals. *International Journal of Business & Society, 19*. 312-323. Retrieved from http://www.ijbs.unimas.my http://www.ijbs.unimas.my

Kral, P., & Kralova, V. (2016). Approaches to changing organizational structure: The effect of drivers and communication. *Journal of Business Research, 69,* 5169-5174. doi:10.1016/j.jbusres.2016.04.099

Krogh, S. (2018). Anticipation or organizational change. *Journal of Organizational Change Management, 31,* 1271-1282.doi:10.1108/JOCM-03-2017-0085

Lavissiere, A. (2018). Vessel port dues: An influence from path dependency rather than geography of ports. *The Asian Journal of Shipping and Logistics, 34*(2), 61-70. doi:10.1016/j.ajsl.2018.06.003

Laxe, F. G., Sanchez, R. J., & Garcia-Alonso, L. (2016). The adaptation process in port governance: The case of the Latin countries in South America and Europe. *Journal of Shipping and Trade*, *1*(1), 14. doi:10.1186/s41072-016-0018-y

Lekakou, M. B., & Remoundos, G. (2015). Restructuring coastal shipping: A participatory experiment. *WMU Journal of Maritime Affairs, 14*(1), 109-122. doi:10.1007/s1343

Lewis, S. (2015). Qualitative inquiry and research design: Choosing among five approaches. *Health Promotion Practice, 16*(4), 473-475. doi:10.1177/1524839915580941

Liang, Y., & Ma, W. (2017). How does path dependence facilitate reform? The case of the mega-ministry reform in Shunde District, Guangdong Province, China. *Asian*

Politics & Policy, *9*(2), 186-201. doi:doi.org/10.1111/aspp.12316

Liddell, A. E., Allan, S., & Goss, K. (2017). Therapist competencies necessary for the delivery of compassion-focused therapy: A Delphi study. *Psychology and Psychotherapy: Theory, Research, and Practice*, *90*(2), 156-176. doi:10.1111/papt.12105

Lincoln, S. Y., & Guba, E. G. (1985). *Naturalistic inquiry*. Thousand Oaks, CA: Sage Publications.

Linstone, H. A., & Turoff, M. (2002). *The Delphi method: Techniques and applications*. Addison-Wesley Publishing Company Inc, Reading, M.A. Retrieved from http://www.is.njit.edu

Lloyd, C., Onyeabor, E., Nwafor, N., Alozie, O. J., Nwafor, M., Mahakweabba, U., & Adibe, E. (2019). Maritime transportation and the Nigerian economy: Matters arising. *Commonwealth Law Bulletin*, *45*(3), 390-410. doi:10.1080/03050718.2019.1708426

Lund-Thomsen, P., Poulsen, R. T., & Ackrill, R. (2016). Corporate social responsibility in the international shipping industry: State-of-the-art, current challenges, and future directions. *The Journal of Sustainable Mobility*, *3*(2), 3-13. doi:10.9774/GLEAF.2350.2016.de.00002

Macnaghten, P. (2017). Focus groups as anticipatory methodology: A contribution from science and technology studies towards socially resilient governance. In *A New Era in Focus Group Research* (pp. 343-363). Palgrave Macmillan, London.

Magaji, H. (2016, April 6). Nigeria is losing billions of dollars to maritime sector

mismanagement. *Financial Watch*. Retrieved from https://www.financialwatchngr.com

Marshall, C., & Rossman, G. (2016).*Designing qualitative research* (6h ed.). Thousand Oaks: Sage.

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach* (3rd ed.). Thousand Oaks, CA: Sage Publications.

McBride, M. (2015). *A modified Delphi approach to posttraumatic stress disorder and leadership theory*. (Doctoral Dissertation). Available from ProQuest Dissertations and Theses database. (UMI No. 3692072).

McPherson, S., Reese, C., & Wendler, M. C. (2018). Methodology update: Delphi studies. *Nursing research*, *67*(5), 404-410. doi:10.1097/NNR.0000000000000297

Medda, F., & Caschili, S. (2015). The port attractiveness index: Application on African ports. *Region et Developpement*, *41*, 47-82. Retrieved from http://discovery.ucl.ac.uk

Meijering, J., Kampen, J., & Tobi, H. (2013). Quantifying the development of agreement among experts in Delphi studies. *Technological Forecasting and Social Change, 80*(8), 1607-1614. doi:10.1016/j.techfore.2013.01.003

Merriam, S., & Tisdell, E. (2016). *Qualitative research: A guide to design and implementation.* 4th ed. San Francisco, CA: John Wiley & Sons, Inc.

Meskell, P., Murphy, K., Shaw, D. G., & Casey, D. (2014). Insights into the use and complexities of the Policy Delphi technique. *Nurse Researcher, 21*(3). 32-39. doi:10.7748/nr2014.01.21.3.32e342

Meyiwa, A., & Chasomeris, M. (2016). Restructuring port governance in South Africa. *Journal of Economic and Financial Sciences, 9*(3), 854-873. Retrieved from http://journals.co.za

Michael, O. O. (2019). Assessing the contribution of containerization to the development of western ports, Lagos Nigeria. *Journal of International Logistics and Trade*, *17*(1), 12-20. doi:10.24006/jilt.2019.17.1.002

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Newbury Park, CA: Sage.

Miles, M. B., Huberman, A. M., & Saldana, J. (2014). *Qualitative data analysis: A methods sourcebook* (3rd ed.). Thousand Oaks, CA: Sage.

Monios, J. (2017). Port governance in the UK: Planning without policy. *Research in Transportation Business & Management*, *22*, 78-88. doi:10.1016/j.rtbm.2016.10.006

Monios, J., Bergqvist, R., & Woxenius, J. (2018). Port-centric cities: The role of freight distribution in defining the port-city relationship. *Journal of Transport Geography*, *66*, 53-64. doi:10.1016/j.jtrangeo.2017.11.012

Monios, J., & Wilmsmeier, G. (2016). Between path dependency and contingency: New challenges for the geography of port system evolution. *Journal of Transport Geography*. *51*, 247-251. doi:10.1016/j.jtrangeo.2016.01.008

Monyocho, E. O., & Theuri, F. S. (2017). Effects of competitive strategies on sustainable competitive advantage of container freight stations in Kenya: Case of focus container freight station in Mombasa. *Imperial Journal of Interdisciplinary*

Research, *3*(4). Retrieved from http://imperialjournals.com

National Institutes of Health (NIH). Office of Extramural Research. (2008). *Protecting human research participants* (Online training course). Retrieved from http://phrp.nihtraining.com

Ndikom, O. B., Buhari, S. O., & Okezie, G. M. (2019). Concessioning and container traffic operations in Nigerian ports. *African Journal for the Psychological Studies of Social Issues*, *22*(1), 33-47. Retrieved from https://www.semanticscholar.org/

Neequaye, E. N., Huang, D., Amowine, N., & Fynn, S. (2018). Empirical analysis of the economic benefits of free ports and their challenges to Ghana: A cross-sectional survey of Tema Harbour. *Open Journal of Social Sciences*, *6*(04), 180. doi:10.4236/jss.2018.64016

Neuer Colburn, A. A., Grothaus, T., Hays, D. G., & Milliken, T. (2016). A Delphi study and initial validation of counselor supervision competencies. *Counselor Education and Supervision*, *55*(1), 2-15. doi:10.1002/ceas.12029

News Agency of Nigeria. (2016, February 1). Eradicate corruption at the ports. *The Guardian*. Retrieved from https://guardian.ng

Nguyen, L. C., & Notteboom, T. (2016). Dry ports as extensions of maritime deep-sea ports: A case study of Vietnam. *Journal of International Logistics and Trade*, *14*(1), 65-88. Retrieved from https://biblio.ugent.be

Nguyen, L. C., & Notteboom, T. (2017). Public-private partnership model selection for dry port development: An application to Vietnam. *World Review of Intermodal Transportation Research*, *6*(3), 229-250. Retrieved from https://biblio.ugent.be

Nilsen, P. (2015). Making sense of implementation theories, models and frameworks. *Implementation Science: IS, 10*, 53. doi:10.1186/s13012-015-0242-0

Njar, G. N., & Okon, I. E. (2019). The impacts of cabotage law implementation on Nigeria's indigenous shipping industry: A study of the Onne Sea Port, Rivers State, Nigeria. *International Journal of Development and Sustainability, 8*(7), 388-403. Retrieved from https://isdsnet.com/

Njuangang, S., Liyanage, C., & Akintoye, A. (2017). Application of the Delphi technique in healthcare maintenance. *International Journal of Health Care Quality Assurance*, *30*(8), 737-754. doi:10.1108/IJHCQA-02-2017-0042

Noble, H., & Smith, J. (2015). Issues of validity and reliability in qualitative research. *Evidence Based Nursing*, *18*(2), 34-35. doi:10.1136/eb-2015-102054

Notteboom, T., De Langen, P., & Jacobs, W. (2013). Institutional plasticity and path dependence in seaports: Interactions between institutions, port governance reforms, and port authority routines. *Journal of Transport Geography*, *27*, 26-35. doi:10.1016/j.jtrangeo.2012.05.002

Notteboom, T., & Yang, Z. (2017). Port governance in China since 2004: Institutional layering and the growing impact of broader policies. *Research in Transportation Business & Management*, *22*, 184-200. doi:10.1016/j.rtbm.2016.09.002

Nsan-Awaji, E. S. (2019). The Challenges and prospect of maritime industry in Nigeria. *Danubius Working Papers*, *1*(1). 42-57. Retrieved from http://journals.univ-danubius.ro/

Nwankwo, W., & Kifordu, A. (2019). Strengthening private sector participation in public

infrastructure projects through concession policies and legislations in Nigeria: A Review. *Journal of Advanced Research in Dynamical and Control Systems*, 11(8) 1360-1370. Retrieved from https://d1wqtxts1xzle7.cloudfront.net/

Nwanosike, F. O., Tipi, N. S., & Warnock-Smith, D. (2016). Productivity change in Nigerian seaports after reform: A Malmquist productivity index decomposition approach. *Maritime Policy & Management, 43*(7), 798-811. doi:10.1080/03088839.2016.1183827

Nwekeaku, C., & Atteh, J. (2016). Cabotage Act and the challenges of Nigerian shipping lines in Sub-Sahara Africa. *Advances in Social Sciences Research Journal, 3*(5). doi:10.14738/assrj.34.1988

Nwokedi, T. C., Addah, G. L., Nnadozie, N. E., Friday, U., & Joseph, A. (2018). Comparative study on implementation outcomes of UNCTAD 40-40-20 and cabotage maritime policies in Nigeria. *International Journal of Science and Business, 2*(4), 653-662. Retrieved from https://ijsab.com/

Nze, I. C., Ogwude, I. C., Nnadi, K. U., & Ibe, C. C. (2016). Cost optimization models of port operations in Nigeria: A scenario for emerging river ports. *Journal of Maritime Research, 13*(3). Retrieved from https://www.jmr.unican.es

Nze, I. C., & Onyemechi, C. (2018). Port congestion determinants and impacts on logistics and supply chain network of five African ports. *Journal of Sustainable Development of Transport and Logistics, 3*(1), 70-82. doi:10.14254/jsdtl.2018.3-1.7.

Nze, O. N., Ejem, A. E., & Nze, I. C. (2020). Benchmarking technical efficiency of

Nigerian seaports. *Journal of Sustainable Development of Transport and Logistics, 5*(1), 77-95. doi:10.14254/jsdtl.2020.5-1.8.

Oblak, R., Hess, S., & Jugovic, A. (2016). Inland container terminals in the function of the Northern Adriatic ports enhanced operation. *Pomorskizbornik, 51*(1), 85-102. Retrieved from https://hrcak.srce.hr

Odeleye, J. A. (2015). The need for multimodal transport development in Nigeria. *Journal of Geography and Regional Planning*, *8*(9), 239-243. doi:10.5897/JGRP2015.0508

Ofuani, A. B., Sulaimon, A. H. A., & Adebisi, S. A. (2018). Corporate governance practices: A comparative study of selected public corporations in Nigeria. *Academic Journal of Economic Studies*, *4*(1), 192-202. Retrieved from http://www.ajes.ro/

Ogbeifun, E., Mbohwa, C., & Pretorius, J. H. C. (2017). Achieving consensus devoid of complicity: Adopting the Delphi technique. *International Journal of Productivity and Performance Management*, *66*(6), 766-779. doi:10.1108/IJPPM-08-20150112

Ojadi, F. I., & Walters, J. (2015). Critical factors that impact on the efficiency of the Lagos seaports. *Journal of Transport and Supply Chain Management*, *9*(1), 1-13. doi:10.4102/jtscm.v9i1.180

Ojogbo, S. E., & Nwano, T. C. (2019). Corporate governance code and corporate governance implications for business: A critique of Nigeria's 2016 and 2018 codes. *Law in Africa*, *22*(1), 77-96. Retrieved from https://www.nomos-elibrary.de/

Okechukwu, A. J. (2015). Project management in the shipping industry. *Project Management, 5*(3). 1-9. Retrieved from http://citeseerx.ist.psu.edu

Okeke, A. F., & Kalu, A. O. U. (2019). Port concession and the quality of service delivery in Nigerian Ports Authority. *International Journal of Research in Business, Economics and Management, 3*(2), 1-27. Retrieved from http://www.ijrbem.com/

Okike, E., Adegbite, E., Nakpodia, F., & Adegbite, S. (2015). A review of internal and external influences on corporate governance and financial accountability in Nigeria. *International Journal of Business Governance and Ethics*, *10*(2), 165-185. doi:10.1504/IJBGE.2015.070933

Okon, A. (2018a, January 4). Dry ports cannot work without rail connection – experts. *Punch*. Retrieved from https://punchng

Okon, A. (2018b, February 1). Dry ports doomed to failure, say stakeholders. *Punch*. Retrieved from https://punchng

Okon, A. (2018c, April 19). Government collaboration, engagement improving western ports – stakeholders. *Punch*. Retrieved from https://punchng

Okon, I. E., & Smart, E. A. (2018). The challenges of Calabar sea port operations, Calabar, South-South Nigeria. *International Journal of Advanced Research and Publications, 2*(8), 40-49. Retrieved from http://www.ijarp.org/

Okoroafor, G. I., & Bernard, I. C. (2019). Treasury single account policy. *African Journal of Social and Behavioral Sciences*, *9*(1). 189-206. Retrieved from https://www.journals.aphriapub.com/

Olukoju, A. (2020). African seaports and development in historical perspective. *International Journal of Maritime History, 32*(1), 185-200. doi:10.1177/0843871419886806

Olusegun, O. A. (2020). New seaport development-prospects and challenges: Perspectives from Apapa and Calabar Seaports, Nigeria. *Logistics*, *4*(2), 8-12. doi:10.3390/logistics4020008

Omoke, V., Adigun, A. O., Awam, I., Ahuama, J. I., & Gidado, S. U. (2015a). Socio-economic and political implications of the on-going port reform process in Nigeria. *International Journal of Innovative Research and Development, 4*(3). 110-113. Retrieved from www.ijird.com

Omoke, V., Diugwu, I. A., Nwaogbe, O. R., Ibe, C. C., & Ekpe, D. A. (2015b). Infrastructure financing and management: The impact of concession on the operations and performance of Nigerian seaports. *Journal of Behavioral Economics, Finance, Entrepreneurship, Accounting and Transport, 3*(2), 65-70. doi:10.12691/jbe-3-2-1

Omoke, V., & Onwuegbuchunam, D. E. (2018). Determinants of inter-port competition: A case of coastal ports in West Africa. *Journal of Shipping and Ocean Engineering, 8*, 43-53. doi:10.17265/2159-5879/2018.02.001

Onufrey, K., & Bergek, A. (2015). Self-reinforcing mechanisms in a multi-technology industry: Understanding sustained technological variety in a context of path dependency. *Industry and Innovation, 22*(6), 523-551. doi:10.1080/13662716.2015.1100532

Onwuegbuchunam, D. E. (2018). Assessing port governance, devolution and terminal performance in Nigeria. *Logistics*, *2*(1), 6. doi:10.3390/logistics2010006

Onwuegbuchunam, D. E. (2020). Port deregulation and productivity in Nigeria: Some implications for economic regulators. *Journal of Sustainable Development of Transport and Logistics, 5*(1), 133-140. doi:10.14254/jsdtl.2020.5-1.13.

Onwuegbuchunam, D. E., Igboanusi, C., & Ogwude, I. C. (2017). The performance of marine insurance firms in Nigeria: An Augmented SWOT Analysis. *International Journal of Transportation Engineering and Technology*, *3*(4), 83-90. doi:10.11648/j.ijtet.20170304.16

Opawole, A., & Jagboro, G. O. (2016). Benchmarking parties' obligations in the execution of concession-based PPP projects in Nigeria. *Journal of Place Management and Development*, *9*(1), 27-46. doi:10.1108/JPMD-08-2015-0029

Organization for Economic Cooperation and Development. (2014). *OECD Foreign Bribery Report-An Analysis of the Crime of Bribery of Foreign Public Officials*. OECD Publishing.

Organization for Economic Cooperation and Development. (2017, May 21). The OECD Development Centre releases toolkit to tackle corruption in the extractive value chain at the 2016 OECD Integrity Forum. Retrieved from http://www.oecd.org

Ormston, R., Spencer, L., Barnard, M., & Snape, D. (2014). The foundations of qualitative research. *Qualitative research practice: A guide for social science students and researchers*, *2,* 52-55. Retrieved from https://city.rl.talis.com

Osemeke, L., & Adegbite, E. (2016). Regulatory multiplicity and conflict: Towards a

combined code on corporate governance in Nigeria. *Journal of Business Ethics, 133*(3), 431-451. doi:10.1007/s10551-014-2405-3

Osemwengie, O. E., Awele, U. C., & Akpotor, V. A. (2019). Corporate governance mechanisms and the performance of Nigerian quoted companies. *Journal of Accounting, Business and Social Sciences, 2*(1), 151-175. Retrieved from http://jabss.org/

Owusu Kwateng, K., Donkoh, A., & Muntaka, A. S. (2017). Evaluation of dry port implementation in Ghana. *Maritime Business Review*, *2*(3), 261-278. doi:10.1108/MABR-01-2017-0005

Palinkas, L. A. (2014). Qualitative and mixed methods in mental health services and implementation research. *Journal of Clinical Child & Adolescent Psychology*, *43*(6), 851-861. doi:10.1080/15374416.2014.910791

Panayides, P. M., Parola, F., & Lam, J. S. L. (2015). The effect of institutional factors on public-private partnership success in ports. *Transportation Research Part A: Policy and Practice, 71,* 110-127. doi:10.1016/j.tra.2014.11.006

Park, S., & Kim, E. (2015). Revisiting knowledge sharing from the organizational change perspective. *European Journal of Training and Development, 39,* 769-797. doi:10.1108/EJTD-06-2015-0042

Parola, F., Satta, G., & Panayides, P. M. (2015). Corporate strategies and profitability of maritime logistics firms. *Maritime Economics & Logistics*, *17*(1), 52-78. doi:10.1057/mel.2014.18

Patton, M. Q. (2015). *Qualitative research and evaluation methods* (4th ed.). Thousand

Oaks, CA: Sage Publications.

Peinert, E. (2018). Periodizing, paths and probabilities: Why critical junctures and path dependence produce causal confusion. *Review of International Political Economy*, *25*(1), 122-143. doi:10.1080/09692290.2017.1387586

Peterson, E. A. (2017). *Building consensus among general counsel to address managerial legal strategy perspectives* (Doctoral dissertation). Retrieved from ProQuest Dissertation database (Order No. 10637084)

Pomeroy, R., Parks, J., Mrakovcich, K. L., & LaMonica, C. (2016). Drivers and impacts of fisheries scarcity, competition, and conflict on maritime security. *Marine Policy*, *67*, 94-104. doi:10.1016/j.marpol.2016.01.005

Prak, M., & Wivatvanit, S. (2018). The development of neonatal nursing standards of practice for Cambodia: A Delphi study. *Journal of Health Research*, *32*(1), 12-23. doi:10.1108/JHR-11-2017-002

Quazi, R., Vemuri, V., & Soliman, M. (2014). Impact of corruption on foreign direct investment in Africa. *International Business Research*, *7*(4), 1. doi:10.5539/ibr.v7n4p1

Rahman, M., & Saifullah, A. Z. A. (2016). The effectiveness of container inspection systems (CIS) on ports management in Bangladesh. *International Journal of Engineering and Management Research (IJEMR)*, *6*(5), 267-272. Retrieved from http://www.ijemr.net

Reiman, M. P., Thorborg, K., Covington, K., Cook, C. E., & Holmich, P. (2017). Important clinical descriptors to include in the examination and assessment of

patients with femoroacetabular impingement syndrome: An international and multi-disciplinary Delphi survey. *Knee Surgery, Sports Traumatology, Arthroscopy*, *25*(6), 1975-1986. doi:10.1007/s00167-017-4484-z

Reveley, J. W. C. (2008). Path dependence: Institutional change in New Zealand's port labor markets, 1950-1989. *The Journal of Transport History, 29*(2), 193-212. doi:10.7227/TJTH.29.2.3

Rodrigue, J. P., Cooper, J., & Merk, O. (2014). The competitiveness of ports in emerging markets: The case of Durban, South Africa. *Country-Specific Policy Analysis*. Retrieved from https://trid.trb.org

Roseline, M. B., & Konya, K. T. (2019). Employee dedication and performance of transport operators in the marine sector in Port Harcourt, Nigeria. *International Journal of Advanced Academic Research, 5*(5), 18-33. Retrieved from https://www.ijaar.org/

Ross, M. W., Iguchi, M. Y., & Panicker, S. (2018). Ethical aspects of data sharing and research participant protections. *American Psychologist, 73*(2), 138-145. doi:10.1037/amp0000240

Ruttan, V. W. (1959). Usher and Schumpeter on invention, innovation, and technological change. *The Quarterly Journal of Economics*, 596-606. doi:10.2307/1884305

Salisu, U. O., & Raji, B. A. (2017). Analysis of seaport productivity in pre and post concession periods in Nigeria: A study of Apapa port. *Transport & Logistics, 17*(42). 62-71. Retrieved from http://ulpad.fberg.tuke.sk

Sanchez, R., & Pinto, F. (2015). The great challenge for ports: The time has come to

consider a new port governance. Retrieved from http://www.cepal.org

Seabra, F., Flores, G. P., & Gomes, K. C. (2016). Effects of corruption and logistics performance inefficiencies on container throughput: The Latin America Case. *Transnational Corporations (TNCs), 1*, 44. Retrieved from http://waset.org

Sekayi, D., & Kennedy, A. (2017). Qualitative Delphi method: A four-round process with a worked example. *The Qualitative Report, 22*(10), 2755-2763. Retrieved from http://nsuworks.nova.edu

Sellin, L., Kumlin, T., Wallsten, T., & WiklundGustin, L. (2018). Caring for the suicidal person: A Delphi study of what characterizes a recovery-oriented caring approach. *International Journal of Mental Health Nursing*, *27*(6), 1756-1766. doi:10.1111/inm.12481

Sequeira, S., & Djankov, S. (2014). Corruption and firm behavior: Evidence from African ports. *Journal of International Economics, 94*(2), 277-294. doi:10.1016/j.jinteco.2014.08.010

Shariff, N. (2015). Utilizing the Delphi survey approach: A review. *J Nurs Care*, *4*(3), 1-6.doi:10.4172/2167-1168.1000246

Shinohara, M., & Saika, T. (2018). Port governance and cooperation: The case of Japan. *Research in Transportation Business & Management*. doi:10.1016/j.rtbm.2018.02.009

Ships & Ports. (2016, January 25). MACN enlightens maritime practitioners on anti-corruption in port operations. *Shipping Position Online*. Retrieved from http://shippingposition.com.ng

Ships & Ports. (2017, January 23). Operation of inland container depots. *Shipping Position Online*. Retrieved from http://shippingposition.com.ng

Skellern, K., Markey, R., & Thornthwaite, L. (2017). Identifying attributes of sustainable transitions for traditional regional manufacturing industry sectors: A conceptual framework. *Journal of Cleaner Production*, *140*, 1782-1793. doi:10.1016/j.jclepro.2016.07.183

Skinner, R., Nelson, R. R., Chin, W. W., & Land, L. (2015). The Delphi method research strategy in studies of information systems. *Communications of the Association for Information Systems*, *37*(1), 31-63. Retrieved http://aisel.aisnet.org

Skulmoski, G., Hartman, F. T., & Krahn, J. (2007). The Delphi method for graduate research. *Journal of Information Technology Education, 6*, 1–21. Retrieved from http://www.jite.org

Somuyiwa, A., & Ogundele, A. V. (2015). Correlate of port productivity components in Tin Can Island Port, Apapa, Lagos. *European Journal of Business and Social Sciences*, *4*(01), 227-240. Retrieved from http://www.ejbss.com

Sorensen, A. (2015). Taking path dependence seriously: An historical institutionalist research agenda in planning history. *Planning Perspectives*, *30*(1), 17-38. doi:10.1080/02665433.2013.874299

Suarez-Aleman, A., Sarriera, J. M., Serebrisky, T., & Trujillo, L. (2016). When it comes to container port efficiency, are all developing regions equal? *Transportation Research Part A: Policy and Practice*, *86*, 56-77. Retrieved from https://www.iadb.org

Sydow, J., & Schreyogg, G. (2015). Organizational path dependence. *International Encyclopedia of Social and Behavioral Sciences, 2*, 385-389. doi:10.1016/B978-0-08-097086-8.73103-5

Taylor, A., & Benderson, M. (2017). The maritime anti-corruption network: A model for public-private cooperation against graft. Retrieved from https://www.law.columbia.edu

Tongzon, J. L., Ng, A. K., & Shou, E. C. (2015). Institutions, transport infrastructure governance, and planning: Lessons from the corporatization of port authorities in East Asia. *Environment and Planning C: Government and Policy*, *33*(6), 1467-1483. doi:10.1177/0263774X15614175

Trevelyan, E. G., & Robinson, N. (2015). Delphi methodology in health research: How to do it? *European Journal of Integrative Medicine*, *7*(4), 423-428. doi:10.1016/j.eujim.2015.07.002

Trochim, W. M., Donnelly, J. P., & Arora, K. (2016). *Research methods: The essential knowledge base*. Boston, MA: Cengage Learning.

Trouve, H., Couturier, Y., Etheridge, F., Saint-Jean, O., & Somme, D. (2010). The path dependency theory: Analytical framework to study institutional integration. The case of France. *International Journal of Integrated Care*, *10*(2), 1-9. doi:10.5334/ijic.544

Trujillo, L., Gonzalez, M. M., & Jimenez, J. L. (2013). An overview on the reform process of African ports. *Utilities Policy*, *25*, 12-22. doi:10.1016/j.jup.2013.01.002

Uche, I. I., George, O., & Abiola, W. (2017). Counterproductive work behaviors: A socio-demographic characteristic-based study among employees in the Nigerian maritime sector. *Acta Universitatis Sapientiae, Economics and Business*, *5*(1), 117-138. doi:10.1515/auseb-2017-0006

Ugani, J. N. (2018). Good corporate governance and organizational performance in Nigeria. *Amity Business Journal*, *7*(1), 1-10. Retrieved from https://amity.edu/

Ugoani, J. (2015). Pyramidal public corruption: Public policy and bad governance - Nigerian perspective. *American Journal of Economics, Finance and Management*, *1*(5), 404-413. Retrieved from http://www.aiscience.org

Ullah, A. (2014). Public-private partnership policy in industrialization of Odisha. *International Journal of Social Science & Interdisciplinary*, *3*(10), 131-143. Retrieved from indianresearchjournals.com

UNCTAD. (2015). *Review of maritime transport 2015*. Retrieved from https://unctad.org/

Vanelslander, T., Chomat, G., Roumboutsos, A., & Bonnet, G. (2014). Cross-sectoral comparison of concessions in transport: Urban, road and port pre-fuzzy assessment. *Built Environment Project and Asset Management*, *4*(1), 22-39. doi:10.1108/BEPAM-05-2012-0029

Van Leeuwen, J. (2015). The regionalization of maritime governance: Towards a polycentric governance system for sustainable shipping in the European Union. *Ocean & Coastal Management*, *117*, 23-31. doi:10.1016/j.ocecoaman.2015.05.013

Van Leeuwen, J., Raakjaer, J., Van Hoof, L., Van Tatenhove, J., Long, R., & Ounanian,

K. (2014). Implementing the marine strategy framework directive: A policy perspective on regulatory, institutional and stakeholder impediments to effective implementation. *Marine Policy, 50,* 325-330. doi:10.1016/j.marpol.2014.03.004

Van Schoor, B., & Luetge, C. (2017). Conditions of collective commitment in sector-specific coordinated governance initiatives. *Crime, Law and Social Change*, 1-22.doi:10.1007/s10611-017-9714-2

Vernon, W. (2009). The Delphi technique: A review. *International Journal of Therapy and Rehabilitation*, *16*(2), 69–76. doi:10.12968/ijtr.2009.16.2.38892

Veronique, B. N., & Huang, Y. (2019). An evaluation of West and Central African ports to serve as a hub on the Gulf of Guinea container ports range. *Open Journal of Applied Sciences*, *9*(4), 285-305. doi:10.4236/ojapps.2019.94024

Villa, J. C. (2017). Port reform in Mexico: 1993–2015. *Research in Transportation Business & Management*, *22*, 232-238. doi:10.1016/j.rtbm.2016.11.003

Von der Gracht, H. (2008). *The Delphi technique for futures research: Scenarios for 2025*. Germany, Gabler-Verlag.

Von der Gracht, H. A. (2012). Consensus measurement in Delphi studies: Review and implications for future quality assurance. *Technological Forecasting and Social Change*, *79*(8), 1525-1536. doi:10.1016/j.techfore.2012.04.013

Wang, Y., Han, J. H., & Beynon-Davies, P. (2018). Understanding blockchain technology for future supply chains: A systematic literature review and research agenda. *Supply Chain Management: An International Journal*. 1-43. Retrieved from http://orca.cf.ac.uk

Wanke, P., Nwaogbe, O. R., & Chen, Z. (2017). Efficiency in Nigerian ports: Handling imprecise data with a two-stage fuzzy approach. *Maritime Policy & Management*, 1-17. doi:10.1080/03088839.2017.1410588

Werikhe, G. W., & Zhihong, J. (2015). A comparative study of dry ports in East Africa and China. *Innovation*, *5*(2). Retrieved from http://citeseerx.ist.psu.edu

Williamson, O. E. (1991). Strategizing, economizing, and economic organization. *Strategic Management Journal, 12*(S2), 75-94. doi:10.1002/smj.4250121007

Wilmsmeier, G., & Monios, J. (2016). Institutional structure and agency in the governance of spatial diversification of port system evolution in Latin America. *Journal of Transport Geography, 51*, 294-307. doi:10.1016/j.jtrangeo.2015.02.004

Wilmsmeier, G., Monios, J., & Perez-Salas, G. (2014). Port system evolution–the case of Latin America and the Caribbean. *Journal of Transport Geography*, *39*, 208-221. doi:10.1016/j.jtrangeo.2014.07.007

Wilmsmeier, G., & Sanchez, R. J. (2017). Evolution of national port governance and interport competition in Chile. *Research in Transportation Business & Management, 22*, 171-183. doi:10.1016/j.rtbm.2017.01.001

Wiradanti, B., Pettit, S., Potter, A., & Abouarghoub, W. (2018). Ports, peripherality and concentration–deconcentration factors: A review. *Maritime Business Review*. *3*(4), 2-25. doi:10.1108/MABR-09-2018-0040

Yazan, B. (2015). Three approaches to case study methods in education: Yin, Merriam,

and Stake. *The Qualitative Report*, *20*(2), 134-152. Retrieved from http://nsuworks.nova.edu

Yin, R. K. (2014). *Case study research: Design and methods* (5th ed.). Thousand Oaks, CA: Sage.

Zhang, Q., Geerlings, H., El Makhloufi, A., & Chen, S. (2018). Who governs and what is governed in port governance: A review study. *Transport Policy*, *64*, 51-60. doi:10.1016/j.tranpol.2018.01.019

Appendix A: Round 1 Survey Instrument

For questions 1 – 6, please provide a minimum of 2 – 4 suggestions in response to each question. Also, please list your suggestions in bullet point format and provide a brief description for each suggestion.

1) What are the recommended governance practices to manage the congestion of cargo traffic within the port environment?
2) What are the recommendations for governance practices to ensure compliance with maritime laws and policies?
3) What are the recommendations for governance practices expected of maritime leaders for ensuring the protection of the interests of each of the following (a) shippers, (b) port workers, (c) concessionaires, and (d) contractors?
4) What are the recommendations for governance practices to address the multiplicity of corporate governance codes regulating various stakeholder organizations in the port industry?
5) What are the recommendations for governance practices for ensuring the protection of port physical assets or infrastructure?
6) What additional governance practices not covered by the above questions should be addressed?

Appendix B: Round 2 Survey Instrument

The following include the major categories and items as well as suggestion of additions/modifications by panel members.
Please, rate the desirability and feasibility for each item using the scales provided. Desirability is the effectiveness or benefit of the solution. Feasibility is the practicality in the implementation of the solution.
Feel free to include a rationale for selections (particularly with low ratings of 1 or 2) and provide comments if you would like.

Category A: Governance practices to manage the congestion of cargo traffic within the port environment

Please rate the following Category A items using the two scales. The scales for each item range from 1 to 5, with:

Desirability	**Feasibility**
1 = Very Undesirable;	1 = Very Unfeasible
2 = Undesirable;	2 = Unfeasible
3 = Neither Desirable or Undesirable;	3 = Neither Feasible nor Unfeasible
4 = Desirable;	4 = Feasible
5 = Very Desirable;	5 = Very Feasible

- Desirability is the effectiveness or benefit of the solution.
- Feasibility is the practicality in the implementation of the solution.

1. **Clearly defined roles and responsibilities among multiple security agencies to avoid bureaucratic delays of cargo clearance at seaports.**

Desirability					**Feasibility**				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

2. **Functional and safe road networks to enable smooth flow of cargo traffic and prevent truck accidents around the port environment.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

3. **Removal of administrative bottlenecks and bureaucracies that make cargo documentation and clearing processes difficult by port authorities.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

4. **Development of electronic call up system/technology for access management of carrier trucks.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

5. **Provision of adequate infrastructure (plant and equipment) to optimize cargo handling.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

6. **All registration and licensing processes of shipping and cargo clearance operations must be made more user friendly.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

7. **Discouragement of numerous public holidays that disrupt port operations at certain seasons of the year.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

8. **Eradicating facilitation payments and bribes in shipping operations through automated cargo clearing operations.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

9. **Eradication of poor and obsolete port infrastructure and increasing container port capacity limits.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

10. **Building of private bonded warehouses.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

11. **Rehabilitating and extending existing rail infrastructure to the port for cargo evacuations.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

12. **Creation of efficient truck parks to rid port access roads of traffic gridlock.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

13. **Increasing equipment productivity and cargo clearing time.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

Category B: Governance practices to ensure compliance with maritime laws and policies

Please rate the following Category B items using the two scales. The scales for each item range from 1 to 5, with:

Desirability	**Feasibility**
1 = Very Undesirable;	1 = Very Unfeasible
2 = Undesirable;	2 = Unfeasible
3 = Neither Desirable or Undesirable;	3 = Neither Feasible nor Unfeasible
4 = Desirable;	4 = Feasible
5 = Very Desirable;	5 = Very Feasible

- Desirability is the effectiveness or benefit of the solution.
- Feasibility is the practicality in the implementation of the solution.

14. **Removal of obsolete laws and standards and creation of newer ones including synergy between maritime laws and current realities.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

15. **Establishing a stakeholder forum for discussions and consultations and raising awareness about issues on laws and regulations in the maritime sector.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

16. **Engage stakeholders to regularly amend and formulate laws/policies to keep up with new technology and global business practices.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

17. **Removal of ambiguities associated with maritime policies and procedures that make it difficult for stakeholders to report and seek solutions to alleged noncompliance.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

18. **Collective action initiatives for strict penalties such as jail term sentence to deter future offenders violating maritime laws.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

19. **Harmonizing different local laws and policies and realigning them with global conventions as regards uniformity in legal standards and definitions.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

20. **Establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

21. **Establishment of platforms to educate stakeholders on policy changes aimed at enhancing productivity and compliance.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

22. **Adoption of international maritime codes that are devoid of local political intrigues and sociocultural considerations many of which are not compatible with effective maritime operation.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

23. **Identifying best practices to improve the quality of regulatory decisions.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

24. **Upgrading existing maritime legislations, making them well-matched with the overall port activities and performance.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

25. **Enforcement agencies should develop measures to check corruption among their operatives, such as levelling of sanctions against violators.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

Category C: Governance practices expected of maritime leaders for ensuring the protection of the interests of each of the following (a) shippers, (b) port workers, (c) concessionaires, and (d) contractors

Please rate the following Category C items using the two scales. The scales for each item range from 1 to 5, with:

Desirability	**Feasibility**
1 = Very Undesirable;	1 = Very Unfeasible
2 = Undesirable;	2 = Unfeasible
3 = Neither Desirable or Undesirable;	3 = Neither Feasible nor Unfeasible
4 = Desirable;	4 = Feasible
5 = Very Desirable;	5 = Very Feasible

- Desirability is the effectiveness or benefit of the solution.
- Feasibility is the practicality in the implementation of the solution.

26. **Unification of code of governance for administering stakeholders' rights and interests across the maritime industry.**

Desirability					**Feasibility**				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

27. **Ensuring there is a legal framework guaranteeing fair competition to actualize economic expectation of stakeholders.**

Desirability					**Feasibility**				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

28. **Victimization of the maritime unions and their leaders must be discouraged by law.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

29. **Ensuring there is a legal framework guaranteeing fair competition to actualize economic expectation of stakeholders.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

30. **Adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

31. **Strengthening mechanisms to enhance accountability, transparency, and fairness in port procurement systems.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

32. **Engaging with stakeholders in the drafting of policies to govern the maritime industry and port management.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

33. **Insulating the activities of maritime unions and associations from political and governmental influences.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

34. **Enhancing capacity including adequate representation of various stakeholders' forums to optimize economic gain ethically.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

35. **Protecting and ensuring port operators welfare and security is guaranteed.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

36. **Establishment of a special arbitration body to resolve conflicts relating to international maritime laws to aid small players who cannot afford expensive law suits.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

37. **Develop a robust dispute and conflict resolution mechanism that is fair, transparent and credible among all stakeholders.**

Desirability					**Feasibility**				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

38. **The echelon of regulatory bodies in port privatization should be occupied by persons with ample experience in the maritime industry.**

Desirability					**Feasibility**				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

Category D: Governance practices expected to address the multiplicity of corporate governance codes regulating various stakeholder organizations in the port industry

Please rate the following Category D items using the two scales. The scales for each item range from 1 to 5, with:

Desirability	**Feasibility**
1 = Very Undesirable;	1 = Very Unfeasible
2 = Undesirable;	2 = Unfeasible
3 = Neither Desirable or Undesirable;	3 = Neither Feasible nor Unfeasible
4 = Desirable;	4 = Feasible
5 = Very Desirable;	5 = Very Feasible

- Desirability is the effectiveness or benefit of the solution.
- Feasibility is the practicality in the implementation of the solution.

39. **Adoption of a harmonized code of corporate governance practice that will develop the standard of business operation for enhanced foreign direct investment in the port sector.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

40. **Removal of ambiguity and unnecessary duplication of governance codes.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

41. **Removal of unnecessary duplication of port regulatory bodies.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

42. **Defining clear hierarchy among port regulatory bodies for operators to know which to follow when governance codes differ or conflict.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

43. **Adoption of a unified governance code specific to the port industry that will facilitate the enforcement of standards for financial performance disclosure by maritime leaders.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

44. **Engage all relevant stakeholders to harmonize interests and positions to draw out a common code/policy document that addresses all interest groups.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

45. **Creation of a unified central body in which all regulatory bodies in the maritime industry are subsumed, thereby engendering synergy of policy and operation.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

46. **Simplification of the corporate governance architecture for the maritime industry by the government.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

47. **Proper delineation of roles and responsibilities of port organizations to avoid overlap in statutory responsibilities.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5

☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

48. **Develop effective stakeholder engagement and feedback on addressing corporate governance issues.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

49. **Re-enactment of Companies and Allied Matters Act (CAMA) 2004 Bill to promote high standards of accountability and corporate governance for high quality financial reporting and effective monitoring of maritime organizations.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

50. **Applying penalties and developing strong mechanisms to checkmate excesses such as financial mismanagement of the executive boards of maritime agencies.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

51. **Formulation of a steering committee for the development of a unified code for corporate governance practices to facilitate trust, transparency, and**

fairness in financial performance of executive boards of maritime organizations.

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

52. **Formulation of a steering committee for the development of a unified code for corporate governance practices to facilitate trust, transparency, and fairness in financial performance of executive boards of maritime organizations.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

Category E: Governance practices for ensuring the protection of port physical assets or infrastructure

Please rate the following Category E items using the two scales. The scales for each item range from 1 to 5, with:

Desirability	**Feasibility**
1 = Very Undesirable;	1 = Very Unfeasible
2 = Undesirable;	2 = Unfeasible
3 = Neither Desirable or Undesirable;	3 = Neither Feasible nor Unfeasible
4 = Desirable;	4 = Feasible
5 = Very Desirable;	5 = Very Feasible

- Desirability is the effectiveness or benefit of the solution.
- Feasibility is the practicality in the implementation of the solution.

53. **Minimization of government interference and bureaucracies in the management of physical infrastructure by concessionaires or private owners of port facilities.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

54. **Expand and develop existing port security capacity by investing in manpower training, equipment and technology.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

55. **Giving more prerogative on maintenance of port assets to concessionaires as opposed to their control by government agencies that are hardly affected by the neglect of port facilities.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

56. **Formulation and enforcement of regulatory framework for standards for port assets management by government in line with global best practices.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

57. **Synergy with other security and local law enforcement agencies to formulate, design and implement strategies in line with ISPS codes.**

Desirability **Feasibility**

1 2 3 4 5 **1 2 3 4 5**
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

58. **Investment in technology-based security solutions to secure and monitor assets and port infrastructure.**

Desirability **Feasibility**
1 2 3 4 5 **1 2 3 4 5**
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

59. **Removal of all bureaucracies surrounding expenditure on port facility rehabilitation and upgrade.**

Desirability **Feasibility**
1 2 3 4 5 **1 2 3 4 5**
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

60. **Expertise and capacity should be the criteria for recruiting port managers as opposed to political appointment or interpersonal influences.**

Desirability **Feasibility**
1 2 3 4 5 **1 2 3 4 5**
☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

Category F: Additional governance practices that should be addressed

Please rate the following Category F items using the two scales. The scales for each item range from 1 to 5, with:

Desirability
1 = Very Undesirable;
2 = Undesirable;
3 = Neither Desirable or Undesirable;
4 = Desirable;
5 = Very Desirable;

Feasibility
1 = Very Unfeasible
2 = Unfeasible
3 = Neither Feasible nor Unfeasible
4 = Feasible
5 = Very Feasible

- Desirability is the effectiveness or benefit of the solution.
- Feasibility is the practicality in the implementation of the solution.

61. **Development of comprehensive port management curriculum for universities to enhance the quality of port management professionals.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

62. **Instituting regular port facility check by relevant authorities and ensuring prompt action are taken regarding findings.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

63. **Invest in smart solutions which will help increase efficiency, optimize port operation and reduce the cost of logistics thereby increasing port productivity.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

64. **Supply port security with state-of-the-art equipment capable handling modern threats including terrorism.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

65. **There is the need to harmonize all seaport rates, charges and levies.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

66. **Ensuring that qualified indigenes of neighboring port communities are adequately employed.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

67. **Creation of short courses to develop the capacity of port workers and administrative staff.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

68. **Initiate corporate social responsibility for host port communities.**

Desirability					Feasibility				
1	2	3	4	5	1	2	3	4	5
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

69. **Create and manage effective feedback mechanisms to improve overall port operations.**

Desirability					Feasibility				
1	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Use this space if you wish to provide rationale for choosing a rating of 1 or 2, or to provide general comment

This is the end of the Round 2 survey. I thank you for allowing my study to benefit from your valuable feedback. The next Round 3 will begin in an estimated 1 week, which you will be notified by e-mail.

Appendix C: Round 2 Survey Data of Frequencies and Medians of Solution Items for Desirability and Feasibility

Round 2 Frequencies and Medians of Solution Items of Categories and Subcategories Developed from Round 1

	Maritime Corporate Governance Solution Item	Desirability Frequency % (Likert-type scale)					Median	Feasibility Frequency % (Likert-type scale)					Median
		1	2	3	4	5	M	1	2	3	4	5	M
1	Clearly defined roles and responsibilities among multiple security agencies to avoid bureaucratic delays of cargo clearance at seaports.	0	0	4.0	32.0	64.0	5	0	0	4.0	4.0	56.0	5
2	Functional and safe road networks to enable smooth flow of cargo traffic and prevent truck accidents around the port environment.	0	0	8.0	24.0	68.0	5	0	4.0	8.0	20.0	68.0	5
3	Removal of administrative bottlenecks and bureaucracies that make cargo documentation and clearing processes difficult by port authorities.	0	4.0	4.0	16.0	76.0	5	4.0	0	4.0	44.0	48.0	4
4	Development of electronic call up system/technology for access management of carrier trucks.	4.0	0	0	24.0	72.0	5	4.0	4.0	0	32.0	60.0	5
5	Provision of adequate infrastructure (plant and equipment) to optimize cargo handling.	0	4.0	4.0	12.0	80.0	5	0	4.0	4.0	20.0	72.0	5
6	All registration and licensing processes of shipping and cargo clearance operations must be made more user friendly.	4.0	0	0	16.0	80.0	5	4.0	0	0	20.0	76.0	5
7	Discouragement of numerous public holidays that disrupt port operations at certain seasons of the year.	0	12.0	4.0	48.0	36.0	4	4.0	16.0	4.0	40.0	36.0	4
8	Eradicating facilitation payments and bribes in shipping operations through automated cargo clearing operations.	4.0	0	0	16.0	80.0	5	4.0	0	4.0	32.0	60.0	5
9	Eradication of poor and obsolete port infrastructure and increasing container port capacity limits.	4.0	0	0	8.0	88.0	5	4.0	0	0	20.0	76.0	5
10	Building of private bonded warehouses.	4.0	0	12.0	32.0	52.0	5	4.0	0	12.0	40.0	44.0	4
11	Rehabilitating and extending existing rail infrastructure to the port for cargo evacuations.	4.0	0	4.0	8.0	84.0	5	4.0	0	8.0	28.0	60.0	5
12	Creation of efficient truck parks to rid port access roads of traffic gridlock.	4.0	0	0	16.0	80.0	5	4.0	0	0	24.0	72.0	5
13	Increasing equipment productivity and cargo clearing time.	4.0	4.0	8.0	12.0	72.0	5	4.0	0	12.0	16.0	68.0	5
14	Removal of obsolete laws and standards and creation of newer ones including synergy between maritime laws and current realities.	0	0	0	20.0	80.0	5	0	0	4.0	32.0	64.0	5
15	Establishing a stakeholder forum for discussions and consultations and raising awareness about issues on laws and regulations in the maritime sector.	0	4.0	0	28.0	68.0	5	0	0	0	28.0	72.0	5
16	Engage stakeholders to regularly amend and formulate laws/policies to keep up with new technology and global business practices.	0	0	0	24.0	76.0	5	0	0	0	24.0	76.0	5
17	Removal of ambiguities associated with maritime policies and procedures that make it difficult for stakeholders to report and seek solutions to alleged non-compliance.	0	0	0	16.0	84.0	5	0	0	0	28.0	72.0	5
18	Collective action initiatives for strict penalties such as jail term sentence to deter future offenders violating maritime laws.	0	0	4.2	37.5	58.3	5	0	0	16.0	32.0	52.0	5

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19	Harmonizing different local laws and policies and realigning them with global conventions as regards uniformity in legal standards and definitions.	0	0	4.0	12.0	84.0	5	0	4.0	8.0	20.0	68.0	5
20	Establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry.	0	0	0	12.0	88.0	5	0	0	4.0	32.0	64.0	5
21	Establishment of platforms to educate stakeholders on policy changes aimed at enhancing productivity and compliance.	0	0	4.0	20.0	76.0	5	0	0	4.0	24.0	72.0	5
22	Adoption of international maritime codes that are devoid of local political intrigues and sociocultural considerations many of which are not compatible with effective maritime operation.	0	0	4.0	32.0	64.0	5	0	4.0	12.0	36.0	48.0	4
23	Identifying best practices to improve the quality of regulatory decisions.	0	0	0	16.0	84.0	5	0	0	0	24.0	76.0	5
24	Upgrading existing maritime legislations, making them well-matched with the overall port activities and performance.	0	0	0	24.0	76.0	5	0	0	4.0	36.0	60.0	5
25	Enforcement agencies should develop measures to check corruption among their operatives, such as leveling of sanctions against violators.	0	0	0	16.0	84.0	5	0	4.0	0	28.0	68.0	5
26	Unification of code of governance for administering stakeholders' rights and interests across the maritime industry.	0	0	4.0	16.0	80.0	5	0	0	8.0	28.0	64.0	5
27	Ensuring there is a legal framework guaranteeing fair competition to actualize economic expectation of stakeholders.	0	0	4.0	16.0	80.0	5	0	0	4.0	24.0	72.0	5
28	Victimization of the maritime unions and their leaders must be discouraged by law.	4.0	0	4.0	20.0	72.0	5	4.0	0	8.0	40.0	48.0	4
29	Ensuring there is a legal framework guaranteeing fair competition to actualize economic expectation of stakeholders.	0	0	4.0	20.0	76.0	5	0	0	8.0	24.0	68.0	5
30	Adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors.	0	0	4.0	16.0	80.0	5	0	4.0	0	28.0	68.0	5
31	Strengthening mechanisms to enhance accountability, transparency, and fairness in port procurement systems.	0	0	8.0	12.0	80.0	5	0	0	12.0	24.0	64.0	5
32	Engaging with stakeholders in the drafting of policies to govern the maritime industry and port management.	0	0	4.0	8.0	88.0	5	0	0	4.0	20.0	76.0	5
33	Insulating the activities of maritime unions and associations from political and governmental influences.	0	0	4.0	40.0	56.0	5	0	4.0	20.0	40.0	36.0	4
34	Enhancing capacity including adequate representation of various stakeholders' forums to optimize economic gain ethically.	0	0	4.0	32.0	64.0	5	0	0	4.0	32.0	64.0	5
35	Protecting and ensuring port operators welfare and security is guaranteed.	0	0	0	24.0	76.0	5	0	0	12.0	32.0	56.0	5
36	Establishment of a special arbitration body to resolve conflicts relating to international maritime laws to aid small players who cannot afford expensive law suits.	0	4.0	4.0	20.0	72.0	5	4.0	0	4.0	32.0	60.0	5
37	Develop a robust dispute and conflict resolution mechanism that is fair, transparent and credible among all stakeholders.	0	0	4.0	16.0	80.0	5	0	0	8.0	32.0	60.0	5

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38	The echelon of regulatory bodies in port privatization should be occupied by persons with ample experience in the maritime industry.	0	0	0	16.0	84.0	5	0	8.0	0	16.0	76.0	5
39	Adoption of a harmonized code of corporate governance practice that will develop the standard of business operation for enhanced foreign direct investment in the port sector.	0	0	0	24.0	76.0	5	0	0	4.0	36.0	60.0	5
40	Removal of ambiguity and unnecessary duplication of governance codes.	0	0	4.0	12.0	84.0	5	0	4.0	4.0	16.0	76.0	5
41	Removal of unnecessary duplication of port regulatory bodies.	0	4.0	0	12.0	84.0	5	0	0	4.0	24.0	72.0	5
42	Defining clear hierarchy among port regulatory bodies for operators to know which to follow when governance codes differ or conflict.	0	0	8.0	12.0	80.0	5	0	0	12.0	20.0	68.0	5
43	Adoption of a unified governance code specific to the port industry that will facilitate the enforcement of standards for financial performance disclosure by maritime leaders.	0	0	4.0	28.0	68.0	5	4.0	0	8.0	32.0	56.0	5
44	Engage all relevant stakeholders to harmonize interests and positions to draw out a common code/policy document that addresses all interest groups.	0	0	0	32.0	68.0	5	0	0	0	36.0	64.0	5
45	Creation of a unified central body in which all regulatory bodies in the maritime industry are subsumed, thereby engendering synergy of policy and operation.	0	0	8.0	16.0	76.0	5	0	4.0	12.0	28.0	56.0	5
46	Simplification of the corporate governance architecture for the maritime industry by the government.	0	0	8.3	12.5	79.2	5	0	0	12.5	20.8	66.7	5
47	Proper delineation of roles and responsibilities of port organizations to avoid overlap in statutory responsibilities.	0	0	4.0	24.0	72.0	5	0	0	8.0	32.0	60.0	5
48	Develop effective stakeholder engagement and feedback on addressing corporate governance issues.	0	0	0	20.0	80.0	5	0	0	0	32.0	68.0	5
49	Re-enactment of Companies and Allied Matters Act (CAMA) 2004 Bill to promote high standards of accountability and corporate governance for high quality financial reporting and effective monitoring of maritime organizations.	0	0	12.0	32.0	56.0	5	0	4.0	12.0	40.0	44.0	4
50	Applying penalties and developing strong mechanisms to checkmate excesses such as financial mismanagement of the executive boards of maritime agencies.	0	0	0	16.0	84.0	5	0	0	0	44.0	56.0	5
51	Formulation of a steering committee for the development of a unified code for corporate governance practices to facilitate trust, transparency, and fairness in financial performance of executive boards of maritime organizations.	0	4.0	12.0	24.0	60.0	5	0	4.0	12.0	28.0	56.0	5
52	Promotion of privatization or concession contracts to private investors to discourage the underutilization or abandonment of port infrastructure.	4.2	0	4.2	12.5	79.2	5	4.2	0	4.2	16.8	75.0	5
53	Minimization of government interference and bureaucracies in the management of physical infrastructure by concessionaires or private owners of port facilities.	0	0	8.0	24.0	68.0	5	0	8.0	8.0	28.0	56.0	5

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54	Expand and develop existing port security capacity by investing in manpower training, equipment and technology.	0	0	0	12.0	88.0	5	0	0	0	24.0	76.0	5
55	Giving more prerogative on maintenance of port assets to concessionaires as opposed to their control by government agencies that are hardly affected by the neglect of port facilities.	0	0	8.0	20.0	72.0	5	0	4.0	16.0	20.0	60.0	5
56	Formulation and enforcement of regulatory framework for standards for port assets management by government in line with global best practices.	0	0	4.2	16.7	79.2	5	0	0	8.0	20.0	72.0	5
57	Synergy with other security and local law enforcement agencies to formulate, design and implement strategies in line with ISPS codes.	0	0	0	8.0	92.0	5	0	0	0	16.0	84.0	5
58	Investment in technology-based security solutions to secure and monitor assets and port infrastructure.	0	0	0	20.0	80.0	5	0	4.0	0	28.0	68.0	5
59	Removal of all bureaucracies surrounding expenditure on port facility rehabilitation and upgrade.	0	0	4.0	16.0	80.0	5	0	8.0	4.0	32.0	56.0	5
60	Expertise and capacity should be the criteria for recruiting port managers as opposed to political appointment or interpersonal influences.	0	0	0	24.0	76.0	5	0	12.0	0	44.0	44.0	4
61	Development of comprehensive port management curriculum for universities to enhance the quality of port management professionals.	0	4.0	0	24.0	72.0	5	0	0	4.0	36.0	60.0	5
62	Instituting regular port facility check by relevant authorities and ensuring prompt action are taken regarding findings.	0	0	0	24.0	76.0	5	0	0	4.0	24.0	72.0	5
63	Invest in smart solutions which will help increase efficiency, optimize port operation and reduce the cost of logistics thereby increasing port productivity.	0	0	0	16.0	84.0	5	0	4.0	4.0	24.0	68.0	5
64	Supply port security with state-of-the-art equipment capable handling modern threats including terrorism.	0	0	0	16.0	84.0	5	0	0	0	36.0	64.0	5
65	There is the need to harmonize all seaport rates, charges and levies.	0	4.0	0	12.0	84.0	5	0	4.0	4.0	28.0	64.0	5
66	Ensuring that qualified indigenes of neighboring port communities are adequately employed.	0	0	12.0	24.0	64.0	5	0	4.0	16.0	16.0	64.0	5
67	Creation of short courses to develop the capacity of port workers and administrative staff.	0	0	0	20.0	80.0	5	0	0	0	24.0	76.0	5
68	Initiate corporate social responsibility for host port communities.	0	0	0	24.0	76.0	5	0	0	4.0	24.0	72.0	5
69	Create and manage effective feedback mechanisms to improve overall port operations.	0	0	0	16.0	84.0	5	0	0	0	24.0	76.0	5

Appendix D: Round 2 Solution Items with Top Two Frequency Percentages and Medians

Round 2 Solution Item Ratings with Top Two Frequency Percentages and Medians

Item No	Rated Maritime Corporate Governance Solution Item	Desirability		Feasibility	
		Frequency %	Median	Frequency %	Median
5	Provision of adequate infrastructure (plant and equipment) to optimize cargo handling.	80.0	5	(20.0+72.0)	5
6	All registration and licensing processes of shipping and cargo clearance operations must be made more user friendly.	80.0	5	(20.0+76.0)	5
8	Eradicating facilitation payments and bribes in shipping operations through automated cargo clearing operations.	80.0	5	(32.0+60.0)	5
9	Eradication of poor and obsolete port infrastructure and increasing container port capacity limits.	88.0	5	(20.0+76.0)	5
11	Rehabilitating and extending existing rail infrastructure to the port for cargo evacuations.	84.0	5	(28.0+60.0)	5
12	Creation of efficient truck parks to rid port access roads of traffic gridlock.	80.0	5	(24.0+72.0)	5
14	Removal of obsolete laws and standards and creation of newer ones including synergy between maritime laws and current realities.	80.0	5	(32.0+64.0)	5
17	Removal of ambiguities associated with maritime policies and procedures that make it difficult for stakeholders to report and seek solutions to alleged non-compliance.	84.0	5	(28.0+72.0)	5
19	Harmonizing different local laws and policies and realigning them with global conventions as regards uniformity in legal standards and definitions.	84.0	5	(20.0+68.0)	5
20	Establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry.	88.0	5	(32.0+64.0)	5
23	Identifying best practices to improve the quality of regulatory decisions.	84.0	5	(24.0+76.0)	5
25	Enforcement agencies should develop measures to check corruption among their operatives, such as leveling of sanctions against violators.	84.0	5	(28.0+68.0)	5

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26	Unification of code of governance for administering stakeholders' rights and interests across the maritime industry.	80.0	5	(28.0+64.0)	5
27	Ensuring there is a legal framework guaranteeing fair competition to actualize economic expectation of stakeholders.	80.0	5	(24.0+72.0)	5
30	Adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors.	80.0	5	(28.0+68.0)	5
31	Strengthening mechanisms to enhance accountability, transparency, and fairness in port procurement systems.	80.0	5	(24.0+64.0)	5
32	Engaging with stakeholders in the drafting of policies to govern the maritime industry and port management.	88.0	5	(20.0+76.0)	5
37	Develop a robust dispute and conflict resolution mechanism that is fair, transparent and credible among all stakeholders.	80.0	5	(32.0+60.0)	5
38	The echelon of regulatory bodies in port privatization should be occupied by persons with ample experience in the maritime industry.	84.0	5	(16.0+76.0)	5
40	Removal of ambiguity and unnecessary duplication of governance codes.	84.0	5	(16.0+76.0)	5
41	Removal of unnecessary duplication of port regulatory bodies.	84.0	5	(24.0+72.0)	5
42	Defining clear hierarchy among port regulatory bodies for operators to know which to follow when governance codes differ or conflict.	80.0	5	(20.0+68.0)	5
48	Develop effective stakeholder engagement and feedback on addressing corporate governance issues.	80.0	5	(32.0+68.0)	5
50	Applying penalties and developing strong mechanisms to checkmate excesses such as financial mismanagement of the executive boards of maritime agencies.	84.0	5	(44.0+56.0)	5

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54	Expand and develop existing port security capacity by investing in manpower training, equipment and technology.	88.0	5	(24.0+76.0)	5
57	Synergy with other security and local law enforcement agencies to formulate, design and implement strategies in line with ISPS codes.	92.0	5	84.0	5
58	Investment in technology-based security solutions to secure and monitor assets and port infrastructure.	80.0	5	(28.0+68.0)	5
59	Removal of all bureaucracies surrounding expenditure on port facility rehabilitation and upgrade.	80.0	5	(32.0+56.0)	5
63	Invest in smart solutions which will help increase efficiency, optimize port operation and reduce the cost of logistics thereby increasing port productivity.	84.0	5	(24.0+68.0)	5
64	Supply port security with state-of-the-art equipment capable handling modern threats including terrorism.	84.0	5	(36.0+64.0)	5
65	There is the need to harmonize all seaport rates, charges and levies.	84.0	5	(28.0+64.0)	5
67	Creation of short courses to develop the capacity of port workers and administrative staff.	80.0	5	(24.0+76.0)	5
69	Create and manage effective feedback mechanisms to improve overall port operations.	84.0	5	(24.0+76.0)	5

Appendix E: Round 3 Survey Instrument

Welcome to the Round 3 Research Survey for maritime corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise.

You are presented with the Round 3 survey containing the 33 solutions from Round 2 that met the threshold for panel agreement in both desirability and feasibility.

Please choose and then rank your preferred solutions for maritime corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise.

Round 3 has two (2) solution questions. The first solution question has checkboxes to choose up to five (5) preferred solutions. In the second solution question, please rank your chosen five (5) preferred solutions by clicking on one of the preferred checkboxes from 1 to 5.

Use the number 1 for highest ranking to the number 5 for lowest ranking. The survey will take about 20 minutes to complete.

Please click the SUBMIT button after you have finished the Round 3 survey. Thank you for your time and for allowing my study to benefit from your valuable feedback.

Please, confirm your email address to be used to invite you to participate in the Round 4 survey.

Note: All email addresses will be kept confidential and will only be seen by me. No personal identifiable information will be shared with anyone. SurveyMonkey's privacy policy also ensures information will be kept confidential and private.

1) From the 33 solutions below, please click on the checkbox to choose only five (5) preferred solutions for maritime corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise.

S1 ☐ Provision of adequate infrastructure (plant and equipment) to optimize cargo handling.

S2 ☐ All registration and licensing processes of shipping and cargo clearance operations must be made more user friendly.

S3 ☐ Eradicating facilitation payments and bribes in shipping operations through automated cargo clearing operations.

S4 ☐ Eradication of poor and obsolete port infrastructure and increasing container port capacity limits.

S5 ☐ Rehabilitating and extending existing rail infrastructure to the port for cargo evacuations.

S6 ☐ Creation of efficient truck parks to rid port access roads of traffic gridlock.

S7 ☐ Removal of obsolete laws and standards and creation of newer ones including synergy between maritime laws and current realities.

S8 ☐ Removal of ambiguities associated with maritime policies and procedures that make it difficult for stakeholders to report and seek solutions to alleged noncompliance.

S9 ☐ Harmonizing different local laws and policies and realigning them with global conventions as regards uniformity in legal standards and definitions.

S10 ☐ Establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry.

S11 ☐ Identifying best practices to improve the quality of regulatory decisions.

S12 ☐ Enforcement agencies should develop measures to check corruption among their operatives, such as leveling of sanctions against violators.

S13 ☐ Unification of code of governance for administering stakeholders' rights and interests across the maritime industry.

S14 ☐ Ensuring there is a legal framework guaranteeing fair competition to actualize economic expectation of stakeholders.

S15 ☐ Adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors.

S16 ☐ Strengthening mechanisms to enhance accountability, transparency, and fairness in port procurement systems.

S17 ☐ Engaging with stakeholders in the drafting of policies to govern the maritime industry and port management.

S18 ☐ Develop a robust dispute and conflict resolution mechanism that is fair, transparent and credible among all stakeholders.

S19 ☐ The echelon of regulatory bodies in port privatization should be occupied by persons with ample experience in the maritime industry.

S20 ☐ Removal of ambiguity and unnecessary duplication of governance codes.

S21 ☐ Removal of unnecessary duplication of port regulatory bodies.

S22 ☐ Defining clear hierarchy among port regulatory bodies for operators to know which to follow when governance codes differ or conflict.

S23 ☐ Develop effective stakeholder engagement and feedback on addressing corporate governance issues.

S24 ☐ Applying penalties and developing strong mechanisms to checkmate excesses such as financial mismanagement of the executive boards of maritime agencies.

S25 ☐ Expand and develop existing port security capacity by investing in manpower training, equipment and technology.

S26 ☐ Synergy with other security and local law enforcement agencies to formulate, design and implement strategies in line with ISPS codes.

S27 ☐ Investment in technology-based security solutions to secure and monitor assets and port infrastructure.

S28 ☐ Removal of all bureaucracies surrounding expenditure on port facility rehabilitation and upgrade.

S29 ☐ Invest in smart solutions which will help increase efficiency, optimize port operation and reduce the cost of logistics thereby increasing port productivity.

S30 ☐ Supply port security with state-of-the-art equipment capable handling modern threats including terrorism.

S31 ☐ There is the need to harmonize all seaport rates, charges and levies.

S32 ☐ Creation of short courses to develop the capacity of port workers and administrative staff.

S33 ☐ Create and manage effective feedback mechanisms to improve overall

port operations.

2) The five (5) preferred solutions you selected are carried forward for your ranking. Please rank the solutions using the numbers 1 to 5 for highest preference to lowest preference. To rank the solutions, click on any of the checkboxes under numbers 1 to 5 besides your selected preferred solution.

	1	**2**	**3**	**4**	**5**
Preferred solution by participant	☐	☐	☐	☐	☐
	1	**2**	**3**	**4**	**5**
Preferred solution by participant	☐	☐	☐	☐	☐
	1	**2**	**3**	**4**	**5**
Preferred solution by participant	☐	☐	☐	☐	☐
	1	2	3	4	5
Preferred solution by participant	☐	☐	☐	☐	☐
	1	2	3	4	5
Preferred solution by participant	☐	☐	☐	☐	☐

Please use this space to provide optional comment on your ranking.

Appendix F: Round 3 Survey Data – Panelists Top 8 Solution Items of Ranking for Importance

Solution Item Number	Sub-total of Ranking for Importance by Panelists for each Solution Item					Total Ranking for Importance of each Solution Item by Panelists	Order of Ranking for Importance (%)					Top 3 Solution Items ≥ 80% Threshold with Ranking of 1 and 2	Top 8 Solution Items ≥ 80% Threshold with Ranking of 1, 2, and 3
	1	**2**	**3**	**4**	**5**		**1**	**2**	**3**	**4**	**5**		
S1	14	3	0	2	1	20	70	15	0	10	5	**85.0**	**85.0**
S2	0	1	3	0	2	6	0	16.7	50	0	33.3	16.7	66.7
S3	1	2	4	2	1	10	10	20	40	20	10	30.0	70.0
S4	0	1	0	0	1	2	0	50	0	0	50	50.0	50.0
S5	1	3	0	6	1	11	9.1	27.3	0	54.5	9.1	36.4	36.4
S6	2	2	3	0	1	8	25	25	37.5	0	12.5	50	**87.5**
S7	0	0	0	1	1	2	0	0	0	50	50	0	0
S8	0	1	0	0	0	1	0	100	0	0	0	**100**	**100**
S9	0	0	1	1	0	2	0	0	50	50	0	0	50
S10	2	1	4	0	1	8	25	12.5	50	0	12.5	37.5	**87.5**
S11	1	1	2	0	0	4	25	25	50	0	0	50	**100**
S12	1	0	2	0	1	4	25	0	50	0	25	25	75
S13	0	0	0	0	0	0	0	0	0	0	0	0	0
S14	0	0	0	1	1	2	0	0	0	50	50	0	0
S15	0	1	1	0	0	2	0	50	50	0	0	50	**100**
S16	0	0	0	0	1	1	0	0	0	0	100	0	0
S17	0	0	0	2	0	2	0	0	0	100	0	0	0
S18	0	0	0	1	1	2	0	0	0	50	50	0	0
S19	1	1	1	0	0	3	33.3	33.3	33.3	0	0	66.7	**100**
S20	0	0	0	0	0	0	0	0	0	0	0	0	0
S21	0	0	0	1	0	1	0	0	0	100	0	0	0
S22	0	2	0	1	0	3	0	66.7	0	33.3	0	66.7	66.7
S23	0	0	0	1	2	3	0	0	0	33.3	66.7	0	0
S24	0	3	0	0	1	4	0	75	0	0	25	75	75

S25	0	0	0	1	1	2	0	0	0	50	50	0	0
S26	0	1	0	0	2	3	0	33.3	0	0	66.7	33.3	33.3
S27	0	1	0	0	2	3	0	33.3	0	0	66.7	33.3	33.3
S28	0	0	0	1	0	1	0	0	0	100	0	0	0
S29	2	0	4	2	3	11	18.2	0	36.4	18.2	27.3	18.2	54.5
S30	0	0	0	0	0	0	0	0	0	0	0	0	0
S31	0	0	0	0	1	1	0	0	0	0	100	0	0
S32	0	1	0	0	0	1	0	100	0	0	0	**100**	**100**
S33	0	0	0	2	0	2	0	0	0	100	0	0	0
	25	**25**	**25**	**25**	**25**	**125**							

Appendix G: Round 4 Survey Instrument

Welcome to Round 4, the final round of maritime corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise.

You are presented with the Round 4 survey containing the top **8** ranked solutions from the Round 3 survey based upon the voting preferences of the research panel.

Please rate your confidence in the final list of solutions for maritime corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise. Please, use the numbers 1 to 5 for the lowest confidence rating to the highest confidence rating.

Confidence is the extent of certainty that you have in the cumulative panel prediction being correct about these solutions.

Use the numbers 1- 5 for the confidence rating. The confidence rating scale is:

1 = Unreliable (great risk of being wrong)

2 = Risky (substantial risk of being wrong)

3 = Neither reliable nor unreliable.

4 = Reliable (some risk of being wrong)

5 = Certain (low risk of being wrong).

The survey will take about 10 minutes to complete. Please click **DONE** after you have finished the Round 4 survey. Thank you for your time and for allowing my study to benefit from your valuable expert opinion.

Please, confirm your email address so that I can share the final study result with you:

Note: All email addresses will be kept confidential and will only be seen by me. No personal identifiable information will be shared with anyone. SurveyMonkey's privacy policy also ensures information will be kept confidential and private.

The **8** top-ranked solutions from the Round 3 survey, based upon the voting preferences of the research panel, are listed below in order of preference. Please rate your overall confidence in this group of solutions for maritime corporate governance practices for successfully transforming the old-path dependence of the management of Inland Container Depots into a sustainable enterprise:

1) Provision of adequate infrastructure (plant and equipment) to optimize cargo handling.

.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

2) Creation of efficient truck parks to rid port access roads of traffic gridlock.

.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

3) Removal of ambiguities associated with maritime policies and procedures that make it difficult for stakeholders to report and seek solutions to alleged noncompliance.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

4) Establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry.

.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

5) Identifying best practices to improve the quality of regulatory decisions.

.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

6) Adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

7) The echelon of regulatory bodies in port privatization should be occupied by persons with ample experience in the maritime industry.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

8) Creation of short courses to develop the capacity of port workers and administrative staff.

Confidence Rating	**1**	**2**	**3**	**4**	**5**
	☐	☐	☐	☐	☐

The 33 solution statements ranked from the highest to the lowest, from the Round 3 survey based upon the voting preferences of the research panel are listed below to remind the panelists of the full list of solutions where the 8 top-ranked solutions were generated:

- Provision of adequate infrastructure (plant and equipment) to optimize cargo handling.
- All registration and licensing processes of shipping and cargo clearance operations must be made more user friendly.
- Eradicating facilitation payments and bribes in shipping operations through automated cargo clearing operations.
- Eradication of poor and obsolete port infrastructure and increasing container port capacity limits.
- Rehabilitating and extending existing rail infrastructure to the port for cargo evacuations.
- Creation of efficient truck parks to rid port access roads of traffic gridlock.
- Removal of obsolete laws and standards and creation of newer ones including synergy between maritime laws and current realities.

- Removal of ambiguities associated with maritime policies and procedures that make it difficult for stakeholders to report and seek solutions to alleged noncompliance.

- Harmonizing different local laws and policies and realigning them with global conventions as regards uniformity in legal standards and definitions.

- Establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry.

- Identifying best practices to improve the quality of regulatory decisions.

- Enforcement agencies should develop measures to check corruption among their operatives, such as leveling of sanctions against violators.

- Unification of code of governance for administering stakeholders' rights and interests across the maritime industry.

- Ensuring there is a legal framework guaranteeing fair competition to actualize economic expectation of stakeholders.

- Adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors.

- Strengthening mechanisms to enhance accountability, transparency, and fairness in port procurement systems.

- Engaging with stakeholders in the drafting of policies to govern the maritime industry and port management.

- Develop a robust dispute and conflict resolution mechanism that is fair, transparent and credible among all stakeholders.

- The echelon of regulatory bodies in port privatization should be occupied by persons with ample experience in the maritime industry.

- Removal of ambiguity and unnecessary duplication of governance codes.

- Removal of unnecessary duplication of port regulatory bodies.

- Defining clear hierarchy among port regulatory bodies for operators to know which to follow when governance codes differ or conflict.

- Develop effective stakeholder engagement and feedback on addressing corporate governance issues.
- Applying penalties and developing strong mechanisms to checkmate excesses such as financial mismanagement of the executive boards of maritime agencies.
- Expand and develop existing port security capacity by investing in manpower training, equipment and technology.
- Synergy with other security and local law enforcement agencies to formulate, design and implement strategies in line with ISPS codes.
- Investment in technology-based security solutions to secure and monitor assets and port infrastructure.
- Removal of all bureaucracies surrounding expenditure on port facility rehabilitation and upgrade.
- Invest in smart solutions which will help increase efficiency, optimize port operation and reduce the cost of logistics thereby increasing port productivity.
- Supply port security with state-of-the-art equipment capable handling modern threats including terrorism.
- There is the need to harmonize all seaport rates, charges and levies.
- Creation of short courses to develop the capacity of port workers and administrative staff.
- Create and manage effective feedback mechanisms to improve overall port operations.

Please use this space to provide any optional comments on your confidence rating.

Appendix H: Round 4 Panelists' Confidence Ratings

Solution Items		Panelists' Confidence Ratings (Frequency %)					Frequency Percentage (%) for the Rating Scores of 4 and 5.
		1	2	3	4	5	
S1	Provision of adequate infrastructure (plant and equipment) to optimize cargo handling.	0	7.69	3.85	7.69	80.77	**88.46**
S2	Creation of efficient truck parks to rid port access roads of traffic gridlock.	0	0	7.69	38.46	53.85	**92.31**
S3	Removal of ambiguities associated with maritime policies and procedures that make it difficult for stakeholders to report and seek solutions to alleged noncompliance.	3.85	0	26.92	42.31	26.92	**69.23**
S4	Establish a legal framework and capacity that empowers regulators to enforce laws and policies for the maritime industry.	0	7.69	3.85	30.77	57.69	**88.46**
S5	Identifying best practices to improve the quality of regulatory decisions.	8.0	4.0	12.0	44.0	32.0	**76.0**
S6	Adherence to contractual terms of concession agreements with key stakeholders such as private investors and contractors.	3.85	7.69	11.54	30.77	46.15	**76.92**
S7	The echelon of regulatory bodies in port privatization should be occupied by persons with ample experience in the maritime industry.	0	7.69	7.69	23.08	61.54	**84.62**
S8	Creation of short courses to develop the capacity of port workers and administrative staff.	0	0	15.38	38.46	46.15	**84.61**