



THE ROLE AND THE PROCESS OF A MARITIME HUB IN INTERNATIONAL TRADE:

AN EXAMPLE IN DJIBOUTI

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Abstract:

International trade is the exchange of goods and services between countries, in addition, The hub perception is referred to by different definitions based on its functioning, including logistics center, logistics zone, freight terminal, distribution process, and warehouse. However, Geographical location plays a role that encourages a country's economic improvements. This study investigated, the role and the process of maritime hubs (i.e. export and import) in international trade, as an example of Djibouti, which was explained through in-depth interviews. how Djibouti is considered a maritime hub in terms of exportation and exportation, logistics operations, and its implication to international trade in literature as well as its location in the Horn of Africa, the study aims to reveal the point of view of the companies that provide goods and services. study, as a research method, the study is examined in in-depth interviews with 15 companies within the integrated international logistics (i.e. goods and services) and transportation sectors. According to the findings, half of the companies emphasize enhanced resource flows, particularly technology, and infrastructure, as well as employment growth, however, agreed on the potential of Djibouti regional maritime hub in the Horn of Africa.

Keywords:

International trade, maritime hubs, process, Djibouti

1. Introduction

International trade develops interdependence among countries, which encourages collaboration and diplomatic relationships. It allows countries to become specialists in implementing goods and services that can be exchanged efficiently and successfully with other countries, resulting in mutual benefits and prosperity (Jones et al 2007). Today, 90% of global trade travels via sea routes, with Djibouti strategically positioned along one of the world's most vital shipping corridors, linking the Indian Ocean and the Suez Canal. Additionally, the nation serves as a crucial gateway to the landlocked countries of East Africa (1). Companies located in maritime hub countries have access to valuable transportation networks and international trade routes, which facilitates the movement of goods and lowers logistics expenses. Therefore, Companies located in maritime hub countries have access to valuable transportation networks and international trade routes, which facilitates the movement of goods and lowers logistics expenses (Notteboom & Rodrigue, 2019). The country can become Africa's commercial massive, much like Rotterdam is Europe's major port. Djibouti's key port expedites import and export operations for many countries (ADI,2023)

2. Literature Review

International trade has long been recognized as an essential component of economic growth and development, particularly in countries with the maritime center line. The available research highlights the major impact that international trade has on the functioning and development of maritime hubs on a global level. The literature review

guides the research phase, aiming to gather insights into the hub's significance in international trade. This involves conducting in-depth interviews with companies engaged in export and import activities, encompassing port operators and multimodal freight forwarding firms.

2.1. International Trade and Maritime Hubs

According to (Mannur 1995) international trade refers to the exchange of goods and services between people from different countries, (Balikis. B 2022) It bridges international gaps by facilitating the transfer of goods and services." international trade" refers to the trade of supplies and services between countries through both import and export routes (Zahoor et al. (2012). Recent empirical research has shown an important finding: location emerges as an essential factor for understanding the distributional implications of international trade (Stephen J. Redding 2021), Djibouti's strategic location has enabled port authorities to transform the port into a regional hub servicing the Red Sea and Indian Ocean, bridging Europe, Africa, and Asia, the adoption of containerization has been another pivotal factor contributing to the port's success (Jessica E. Borowicz, 2017). International trade relies heavily on maritime hubs, which connect independent trades and enable the transfer of goods and services. Baldwin and Evenett (2009), as well as Helpman et al. (2008), underline the importance of maritime hubs in supporting trade between states by acting as critical hubs in the global trade network. International trade frequently drives the construction and modernization of port facilities and logistics infrastructure. Brooks and Cullinane (2007) and Notteboom and Rodrigue (2005) found a connected relationship between international trade growth and infrastructure development in maritime hubs, with investments in port capacity and performance strengthening trade competitive advantages and demand to international shipping lines. International trade creates job opportunities and promotes economic growth in marine hub locations. Empirical studies by Hummels et al. (2001) and Rauch (1999) show how higher trade volumes through maritime hubs produce jobs in port-related companies, transportation, logistical operations, and related industries, generating overall economic growth and development. Maritime hubs play important functions in promoting regional integration and connectivity by improving trade links between nearby countries and increasing trade and investment. Ng and Olivier (2017) and Arvis et al. (2012) found that maritime hubs have an important role in strengthening trade links, minimizing transportation costs, and shifting regional competitiveness through better connectivity and trade facilitation.

A maritime organization hub is a facility that is located near the sea and provides logistical services to the maritime sector. However, as Notteboom and Rodrigue (2005) point out, the notion and role of the hinterland, as well as its geographical and functional boundaries, have been extended to encompass whole logistical networks. In addition, Rodrigue and Notteboom (2010) this study expand the concept by concentrating on a specific aspect of the regionalization approach: the developing significance of intermediate hubs. It is believed that, in addition to hinterland-based regionalization, foreland-based regionalization exists, with intermediate hubs capturing a marine hinterland. The intensity and feasibility of foreland-based regional development processes are determined by a variety of topographical, technological, and market-related elements, which this article identifies and evaluates. By doing so, it determines if foreland-based localization is just a transitional phase in port development or if it embodies growing functional aspects of modern freight distribution. Nam & Song (2011) The paper aims to critically examine and synthesize existing hub literature for marine transport and logistics. This article suggests that hub ports, especially container ports, should be evaluated not just for their container throughput in Twenty-Foot Equivalent Units (TEU), but also for their linkages with shipping lines in the region. The study aims to apply network-based analysis to a marine logistics center. The hub idea is commonly referred to by many categories based on its functioning, such as logistics center, logistics zone, freight terminal, distribution center, and warehouse. Reve (2008) This research applies the global knowledge hub approach to the Norwegian maritime sector. Norway has a diverse maritime and offshore industry, with global players operating in shipping, technology, the shipbuilding sector, energy, and deep-water operations. Norway has an extensive understanding of marine resources, including fisheries, shipping, and offshore oil and gas, particularly in deep and cold regions. Norway integrates expertise and technology to serve the marine, maritime, and energy industries. Edirisinghe & Gunaruwan (2013) found in their study that Sri Lanka's strategic location near the East-West main sea route in the Indian Ocean, with over 16 ports that can be economically provided by sea, may not be enough to propel the country to become a maritime hub. Other drivers should be highlighted, especially those linked to port performance and capacity. Sri Lanka should prioritize upgrading port operations to complement its infrastructure development efforts. Improving port operational efficiency can increase

on-arrival landing opening, terminal movements per hour, and ship berthing/unberthing speed, which have already been aided by capacity expansion expenditure.

2.2. The Role and the Process of a Maritime Hub

Kavirathna et al (2018) The analysis is based on economic considerations, time efficiency, port traffic management capabilities, geographical position, operational efficiency, and liner-related criteria. These parameters are assessed via a questionnaire survey provided to shipping lines. The paper presents a thorough examination of the key criteria for both network types, highlighting the Singapore port's overwhelming performance, it also discusses performance. The interdependence of maritime sectors supplied by many competitive hubs has made it more difficult to pick hub ports. This situation presents shipping lines with a variety of options. As a result, this paper investigates the criteria for hub port selection in both hub-and-spoke and relay networks. It assesses the performance of four competing hub ports along the Bay of Bengal: Colombo, Singapore, Kelang, and Tanjung Pelepas. Porter's (1990) introduction of clusters has led to extensive research on their economic competitiveness and policy implications. This has led to increased academic interest in fields such as economics, geography, strategy, sociology, political science, and regional studies (Parto,2008).

In Castell's (1996) concept, the region of locations, where people and activities are proximately located, is supplemented by a distinct world of movements spurred by the advent of ICTs and the formation of an interconnected economy. The author supported the idea that cities serve as hubs, citing a shift in world structure from 'spaces of locations' to 'spaces of flows'. For the previous, location is crucial because of the activities that occur in certain locations. The second concept of flows, on the other hand, is important since it refers to activities that exist across sites and serve as conduits for the coordination of activities in scattered areas.

Based on information theory applies to geographical clusters regions, and companies (Maskell, 2001). Companies or areas with greater expertise are better positioned to capitalize on economic and environmental developments, outperforming rivals (Omerzel & Gulev, 2011).

Dunning and Norman (1983), international trade service organizations establish European offices in cities such as London, Paris, and Brussels to be closer to their consumers; Moreover, according to Jacobs et al. (2011), maritime specialized manufacturing services (APS) companies are located near their clients, such as owners of ships and port-industrial firms, as well as other suppliers of services.

3. Research Method

The study employs an exploratory research methodology, which initiates the utilization of secondary data and primary data. Within secondary data, a comprehensive literature review has been conducted. This initial phase is highlighted in the preliminary section of the study. As primary data, the in-interview method has been implemented, which involves obtaining responses to the researcher's inquiries through in-depth interviews. The in-depth interview method is a qualitative research method that entails detailed discussions with limited participants. It uses open-ended questions and prolonged interaction to investigate individual viewpoints and experiences regarding a subject (Rutledge & hogg 2020). The main purpose behind opting for this research technique was to engage in thorough interviews with 15 companies, which are the sample of the study. These companies include (freight forwarders, port and terminal operators, free zone and trade organizations, as well as those involved in automotive transport, and Logistics and Trade). Therefore, their primary operations rely on the use of Djibouti's ports. The purpose of this in-depth interview is to present the perspectives of export and import enterprises on the significance of Djibouti's localization strategy in the Horn, and secondly, to understand the importance of the maritime hub in international trade.

3.1. Sampling

According to Koerber and McMichael (2008), the word "sampling" is only used when researchers are unable to pick from several populations or study sites due to limited respondent participation. As a sampling method convenience sampling is used, and according to Golzar et al (2022) the sampling strategy improves the accuracy and adaptability of study outcomes. Convenience sampling is an uncertain strategy that selects respondents from a particular category due to their comfort of availability. Convenience sampling, which involves using an easily available sample, can be used in any type of study. In this study convenience sampling is used choosing 15 companies from Djibouti's export/ import, logistics, and transportation sectors. Interviews with employers are done to explore their operations

and viewpoints on Djibouti's role as a regional trading and trans shipment hub. This approach ensures representation from many industry segments and provides significant insights into Djibouti's expanding relevance in the Horn of Africa. This strait is among the busiest maritime passages, accommodating approximately 30% of global merchant shipping annually. With its favourable geographical location and naturally deep-water port, Djibouti is increasingly emerging as a significant regional trade and trans-shipment hub in the Horn of Africa according to HKTDC (December 2019). The companies selected for this study were (Global Transit and Transport Services, Hoche-CIE Transit, Talan Transit, Kothari Logistics, Sitco-SARL, IGAL Transit, Massida Group, ALI-T company, Port of Tadjourah, Doraleh Multi-Purpose Port, SDTV (Djiboutian bulk terminal management company), -IFZD (International Free Zone Djibouti), Marill Automobil, PAM (World Food Organization), Macshine General Trading FZCO. The ages of the respondents were over 25.

The careful choice of these companies ensures a comprehensive analysis of the role and importance of a maritime hub in global trade. The companies have been selected based on their activities and especially some of them are ports. In addition, the time interval of the in depth-interview process took around 2 and a half months from (November 2023 to January 2024).

3.2. Reliability and validity of the study

This research study was conducted adopting the in-depth interview methodology. It is critical to emphasize the importance of this and its validity. Some scholars in the study of qualitative research methodology have different opinions on reliability and validity. According to (Golafshani, 2003), Reliability and validity, if they are to be useful research ideas, particularly from a qualitative perspective, must be reformulated to reflect the various approaches to producing truth. Dubé and Paré (2003) used components of validity in their study approach to ensure scientific rigor. These characteristics included a well-formulated research topic, an articulated theory, an approach to research that improves the study's scientific details, and a detailed procedure for data collection and analysis. The primary purpose of an in-depth interview is to gain extensive knowledge on one specific component or topic (Berry, 1999). It is important to mention that this is a qualitative method, and it targets a small group of people to extract their points of view on a particular subject (Boyce & Neale, 2006). This study examines the function of maritime hubs in international trade and their perceived principles. The findings are shared with respondents. In-depth interviews are currently commonly employed in educational research and are recognized as a powerful method for extracting data, particularly qualitative data. In-depth interviewing is distinguished by the fact that it is an open scenario in which new research directions can develop via the use of techniques like exploring (Berry, 1999). In this study, a structured in-depth interview was conducted along with a questionnaire. This strategy is preferred over interviews because it can produce more detailed information and allows for direct data collection from specialists (Boyce & Neale, 2006).

3.3. Research limitations

There are numerous limitations in this study. To begin, arranging interviews were difficult because the interviewees were in a different country. Second, creating a strategy applicable to all firm types may be influenced by interviewers' backgrounds, perspectives, and communication styles, which may influence answers. Finally, time is an important consideration. These restrictions impact the study's execution, data quality, and the ability to be general. Within a longer period, number of companies could be enlarged for in-depth interviews, providing for a thorough study of many different perspectives among the chosen industry or sector.

3.4. In-depth Interview Process in Djibouti Maritime Hub

To better understand the role and performance of the influence of international trade on a country with a strategic potential location, 15 companies were interviewed in depth. The interviews attempted to gather insights and viewpoints from a variety of stakeholders. The procedure took a duration of 3 months, lasted from November to January 2024, and a series of 10 questions were asked. The companies selected for this study were (Global Transit and Transport Services, Hoche-CIE Transit, Talan Transit, Kothari Logistics, Sitco-SARL, IGAL Transit, Massida Group, ALI-T company, Port of Tadjourah, Doraleh Multi-Purpose Port, SDTV (Djiboutian bulk terminal management company), -IFZD (International Free Zone Djibouti), Marill Automobil, PAM (World Food Organization), Macshine General Trading FZCO. The ages of the respondents were over 25. The interviews with each company lasted approximately 1 hour, although some extended beyond this timeframe due to the need for

further clarification and understanding of the questions posed. The questions asked by respondents are separated into three categories based on the study's objectives. The questions employed in this study were addressed at five firms to determine their suitability and usefulness for gathering important information, the questions have been collected based on rigorous research of processes that could be suitable for all companies as shown in table 1.

Table 1. The Resources of the In-Depth Interview Questions

Questions	Sources
Q1: How is harbour development a pillar of the country's strategy?	PORT OF DJIBOUTI A future transport hub, (2017) https://www.portdedjibouti.com/wp-content/uploads/2017/03/NEW-VERSION-PORT-DJIBOUTI.pdf
Q2: What elements have an impact on the revenue of corporations by using port services?	Schutte, F., Niemann, W. & Kotzé, T., (2019), 'Post shipment financial flows in Supply Chains: A study of small- to medium-sized enterprise importers', <i>Journal of Transport and Supply Chain Management</i> 13(0), a452. https://doi.org/10.4102/jtscm.v13i0.452
Q3: How do ports regularly perform in terms of operational and spatial effectiveness (logistics performance) compared to their regional and global neighbors?	Munim, Z.H., Schramm, HJ. The impacts of port infrastructure and logistics performance on economic growth: the mediating role of seaborne trade. <i>J. Shipp. tr.</i> 3, 1 (2018). https://doi.org/10.1186/s41072-018-0027-0
Q4: What additional measures must be taken from an institutional, political issue, and operational perspective for the main ports to ensure that they provide what is needed to facilitate local, regional economic, and commercial development?	Theo Notteboom, Athanasios Pallis and Jean-Paul Rodrigue (2022) <i>Port Economics, Management and Policy</i> , New York: Routledge, 690 pages / 218 illustrations. ISBN 9780367331559.
Q5: Despite the essential role it plays in world trade, what are the challenges currently facing the maritime sector? To what extent and in what ways do companies contribute to solving the current issues in the maritime sector?	KEYVAN SHAHIDI, 2022, <i>The place and importance of maritime transport in international trade</i> , Istanbul Ticaret University, unpublished Master thesis
Q6: What factors determine the logistic service providers' sustainability performance? and Which competencies serve as indicators with a focus on long-term viability?	Dovbischuk, I. (2021), Sustainable Firm Performance of Logistics Service Providers Along Maritime Supply Chain, 13, 8040. https://doi.org/10.3390/su13148040
Q7: What global targets have been set for the transport industry (services and infrastructure) to maintain its efficiency and competitiveness and establish it as a multimodal hub for logistics at the regional level?	Report on the impact of the transport network on trade and tourism in Djibouti(2021) https://www.comcec.org/wp-content/uploads/2021/07/Djibouti.pdf
Q8: What are the benefits and challenges that technology presents to the marine sector? What preventative measures can the marine sector	What are the main technological innovations in the maritime industry for 2023? (March,2023), https://sinay.ai/en/what-are-the-main-technological-innovation-in-the-maritime-industry-

take to reduce its environmental impact?	for-2023/
Q9: Does the quality of a country's port infrastructure, logistics performance, and maritime trade have a significant impact (positive or negative) on its economy?	Munim and Schramm (2018), The impacts of port infrastructure and logistics performance on economic growth: the mediating role of seaborne trade Journal of Shipping and Trade 3:1, DOI 10.1186/s41072-018-0027-0
Q10: What methods do businesses and institutions use to recruit and train maritime and maritime workers? And how can the industry meet future skills requirements?	Vicky Adam, Claude Comtois & Brian Slack (2021), Innovations and Transformation of the Maritime and Port Workforce: Opportunities and Challenges for Adaptation in Québec

The study includes collecting responses from 15 companies through an in-depth interview with 10 questions. These questions were divided into three sections, according to their similarity, and the questions are illustrated in the table below.

Table 2. Sections and Questions of the In-depth Interview

Sections	Questionnaires
Port development in international trade and economic impact:	Question 1: How is harbour development a pillar of the country's strategy? Question 4: What additional measures must be taken from an institutional, political issue, and operational perspective for the main ports to ensure that they provide what is needed to facilitate local, regional economic, and commercial development? Question 9: Does the quality of a country's port infrastructure, logistics performance, and maritime trade have a significant impact (positive or negative) on its economy?
Challenges and solutions of the maritime sector in international trade:	Question 5: Despite its essential role in world trade, what are the challenges currently facing the maritime sector? To what extent and in what ways do companies contribute to solving the current issues in the maritime sector? Question 6: What factors determine the logistic service providers' sustainability performance? and Which competencies serve as indicators with a focus on long-term viability? Question 8: What benefits and challenges technology presents to the marine sector? What preventative measures can the marine sector take to reduce its environmental impact?

<p>Regional logistics Performance, Competitiveness (workforce), and global Targets of maritime hubs trade of a country</p>	<p>Question 2: What elements have an impact on the revenue of corporations by using port services? Question 3: How do ports regularly perform in terms of operational and spatial effectiveness (logistics performance) compared to their regional and global neighbours? Question 7: What global targets have been set for the transport industry (services and infrastructure) to maintain its efficiency and competitiveness and establish it as a multimodal hub for logistics at the regional level? Question 10: What methods do businesses and institutions use to recruit and train maritime and maritime workers? And how can the industry meet future skills requirements?</p>
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The following table 3 offers a comprehensive overview of the 15 companies chosen for the in-depth interviews. It not only provides a list of these firms but also offers insights into their unique characteristics which the letter C, which is vital for contextualizing their responses.

Table 3. Company Names and Numbers

COMPANY NAME	NUMBER
Global Transit and Transport Services	C1
Hoche-CIE Transit	C2
Talan Transit	C3
Kothari Logistics	C4
Sitco-SARL	C5
IGAL Transit	C6
Massida Group	C7
ALI-T company	C8
Port of Tadjourah	C9
Doraleh Multi-Purpose Port	C10
SDTV (Djiboutian bulk terminal management company)	C11
IFZD (International Free Zone Djibouti)	C12
Marill Automobil	C13
PAM (World Food Organization)	C14
Macshine General Trading FZCO	C15

As indicated earlier, the questions were categorized into three distinct sections. Subsequently, the responses provided by the companies were reorganized based on similarities observed among their answers. This technique included categorizing responses that shared details or addressed comparable topics.

Question 1: How is harbor development a pillar of the country's strategy?

All the companies shared a similar point of view about the first question which is How is harbor development a pillar of the country's strategy? The responses emphasize the importance of port development and maritime hubs in boosting economic growth, enabling trade, and encouraging regional and global connections. Ports are also seen as strategic assets that strengthen a country's position in regional trade networks, contribute to economic diversification, and encourage long-term development objectives.

Question 4: What additional measures must be taken from an institutional, political issue, and operational perspective for the main ports to ensure that they provide what is needed to facilitate local, regional economic, and commercial development?

Companies C1, C2, C4, C8, C9, C10, C11, C13, and C14 highlighted the importance of institutional, political, and operational actions for improving port infrastructure and supporting economic growth. They emphasized the importance of regulatory reforms, infrastructural investments, and technological improvements to boost port efficiency and competitiveness. These companies follow transparent governance platforms, investment incentives, and sustainable practices to help with economic growth and trade development. Therefore, C3, C5, C6, C7, C12, and C15 concentrated on particular strategies and techniques for promoting economic and commercial development through port infrastructure. They underlined the need for open government, private investment, technological adoption, and environmental integrity in port activities. These companies also emphasized the importance of customer collaboration, capacity-building programs, and risk management techniques in ensuring port operational excellence and resilience.

Question 9: Does the quality of a country's port infrastructure, logistics performance, and maritime trade have a significant impact (positive or negative) on its economy?

Companies C1, C2, C4, C5, C7, C8, C9, C10, C12, C13, C14, and C15 highlighted the importance of port infrastructure, logistical efficiency, and maritime trade to a country's economy. They focused on how established port infrastructure and effective logistics operations help to drive economic growth, the creation of jobs, and the ability to compete in international trade. These companies emphasized the necessity of investing in port infrastructure, enhancing logistical capabilities, and increasing maritime trade to stimulate economic growth and attract international investment. Companies C3, C6, and C11 provided more detailed information about the economic benefits of logistics and the influence of port facilities on trade and economic growth. These companies also emphasized the value of transparent governance, private investment, and technical innovation in improving port infrastructure and promoting macroeconomic progress.

Question 5: Despite its essential role in world trade, what are the challenges currently facing the maritime sector? To what extent and in what ways do companies contribute to solving the current issues in the maritime sector?

Companies C1, C3, C4, C5, C6, C7, C8, C9, C10, C12, C13, C14, and C15 agreed on the same perspective on the diverse maritime sector problems, such as infrastructure restrictions, environmental concerns, regulatory regulation, security risks, and advancements in technology. They suggested solutions such as embracing modern technologies, applying environmentally conscious procedures, making investments in upgrading the infrastructure, improving safety measures, and partnering with stakeholders to address common concerns. These companies understood the complexities of the maritime sector's difficulties and underlined the need to take proactive actions to address them. On the other hand, Companies C2 and C11 shared specific examples and case studies to demonstrate difficulties and solutions in the maritime industry.

Question 6: What factors determine the logistic service providers' sustainability performance? and Which competencies serve as indicators with a focus on long-term viability?

Companies C1, C2, C3, C5, C7, C8, C9, C10, C11, C13, C14, and C15 shared a similar idea about the variety of sustainability issues that affect logistics service providers, such as environmental effect, energy efficiency, waste management, social responsibility, and regulatory compliance. They also highlighted competencies such as innovation, adaptation, risk management, teamwork, customer focus, and strategic planning as indicators of long-term success for logistics companies. These companies emphasize the need to adopt sustainable practices in logistical operations while striking a balance between economic viability and social/environmental responsibility. However, Companies C4, C6, and C12 shared detailed examples and case studies to demonstrate the sustainability concerns and solutions in logistics operations. Companies C4, C6, and C12 provide detailed examples and case studies to demonstrate the sustainability concerns and solutions in logistics operations.

They emphasize real-world examples such as the significance of green logistic system approaches, environmental reduction programs, and the function of Free Trade Zones in supporting industrial growth and strengthening supply chains.

Question 8: What benefits and challenges technology presents to the marine sector? What preventative measures can the marine sector take to reduce its environmental impact?

C2, C3, C6, C13, and C9 highlighted the potential advantages of technology in the maritime industry, such as lowering environmental effects through tidy solutions and environmentally conscious methods. Stress the prospective advantages of technology in the maritime industry, such as lowering environmental impact via environmentally friendly equipment and sustainable practices. They admit issues like safety faults, infrastructure expenses, a lack of standards, and cybersecurity dangers. C4, C7, and C14 recognized its benefits, such as increased productivity, security, and operational efficiency. However, they also told the risks and problems associated with technological adoption, such as environmental and cybersecurity threats. Despite the positives, concerns about upfront expenses and job displacement persist. These companies emphasize the need for suitable technology adoption and environmental awareness in solving these challenges and guaranteeing environmentally sound operations in the marine industry.

Question 2: What elements have an impact on the revenue of corporations by using port services?

C1, C2, C3, C4, C5, C7, C8, C9, C10, C11, C12, C13, and C14, agreed on the same point of view about emphasizing a variety of elements that might affect the revenues of enterprises that use port services. Trade volumes, port capability, shipping rates, port efficiency, infrastructure quality, port fees, personnel expenses, operational effectiveness, connectivity, storage facilities, value-added services, customer service, and regulatory concerns are all aspects to consider. The companies highlighted the critical role of these variables in affecting the financial viability and competitiveness of companies that use port services. They emphasize the need for companies to adapt to changing market conditions, invest in infrastructure and technology, improve operational procedures, and focusing customer fulfilment to increase income possibilities. Therefore, C6 and C15 provided practical examples and case studies to demonstrate how these factors affect revenue production and stress the importance of boosting procedures to optimize income potential in maritime companies.

Question 3: How do ports regularly perform in terms of operational and spatial effectiveness (logistics performance) compared to their regional and global neighbors?

C2, C4, C6, C8, and C11, shared the same idea about the significance of modern infrastructure and technology in improving port economy and profitability. C3 and C7 stress the benefits of engaging in global trade facilitation activities designed to improve port efficiency and simplify international trade processes. C1, C8, and C10 agreed on the significance of investment and development in port infrastructure and operations to preserve competitiveness and productivity. (C6, C11) aligned that the need for well-connected transportation networks, such as roads, trains, and planes, is brought up across companies that want to improve logistics performance.

Question 7: What global targets have been set for the transport industry (services and infrastructure) to maintain its efficiency and competitiveness and establish it as a multimodal hub for logistics at the regional level?

C1 emphasized the importance of fulfilling customer needs and enhancing services to achieve these objectives. C2 responded to promote sustainable practices, lower logistics costs, and integrate clean technology and digital logistics management systems. C6 mentioned international-aligned strategies, notably those aimed at expediting customs processing and trade facilitation programs. C8 cited global aims including carbon reduction and trade advancement, particularly pertinent to the Port of Doraleh. Finally, C12 highlighted the (international free zone in Djibouti) pilot zone's components, which are designed to facilitate company assistance and export processing while also harmonizing with the broader transportation sector objectives. C3, C4, C7, C9, C10, C11, C13, C14, and C15 shared the same idea about global transportation goals such as increasing competitiveness, sustainability, and efficiency, as well as supporting multimodal transportation to assist regional logistics hubs. Their conversations included infrastructure investments, the integration of automation and digital technologies, and efforts to line with global goals for sustainable mobility and emission reduction. Overall, their proposed initiatives seek to improve logistics operations and create regional and worldwide growth in the transportation business.

Question 10: What methods do businesses and institutions use to recruit and train maritime and maritime workers? How can the industry meet future skills requirements?

C1, C2, C3, C4, C5, C7, C8, C9, C10, C11, C13, C14, and C15 addressed different approaches to recruiting and training nautical professionals. Apprenticeships, internships, practical training programs, on-the-job training, academic partnerships, specialized job fairs, and continuing education efforts are among the ways used. Investing in staff development ensures a trained and adaptable workforce for the future. C6 and C12, on the other hand, presented specific examples of hiring and instruction procedures inside their companies or regions, focusing on collaborating with educational institutions and attracting investment to create jobs.

4. Findings

The paper examines the challenging processes of a maritime hub in the context of international trade, using Djibouti as an example. Djibouti's strategic location at the crossroads of key shipping routes makes it an excellent case study for examining the function of maritime hubs in facilitating regional trade. The research attempts to get a comprehensive understanding of maritime hub operations and views by interviewing enterprises that export and import. The interview was divided into three parts, each of which focused on different aspects of the companies' interactions with the maritime hub. The study aimed to get significant information into the many processes, difficulties, and opportunities present with operating in a maritime hub by conducting in-depth interviews with a number of the selected companies. Furthermore, by studying the opinions offered by participating companies, the study intends to shed light on the broader consequences of maritime hubs for regional and international trade processes. The study's findings may provide helpful direction for policymakers, and stakeholders in the maritime industry, and Djibouti is looking to benefit from maritime and regional hub in their trade activities.

5. Conclusion

The paper examines and recognizes the role and process of maritime hubs in international trade as an example of Djibouti, through an in-depth interview of 15 companies in the export and import, some of the companies are port users due to the requirement of logistics for their activities and transportation. It is clear that Djibouti's strategic location between the Red Sea and the Gulf of Aden is critical in international trade routes. The results of the in-depth-interview with companies indicate mostly that all the companies have the same issues in terms of resources. Other findings were that the respondents of these companies did not have knowledge and understanding required to use advanced technology, as well as lack of infrastructure, which might cause problems with the delays of the merchandise. Therefore, obstacles like as infrastructure constraints and operational inefficiencies were raised throughout the interviews, impeding Djibouti's full potential as a marine hub. In order to address these challenges, the recommended solutions include increased investment in port infrastructure, enhanced logistical capabilities, and streamlined regulatory processes. Implementing these solutions is critical to maximizing Djibouti's position as a maritime hub, supporting economic growth, and facilitating more efficient international trade operations for all parties that are involved in the activities of the port. The study's relevance, quality, and result from the small number of companies involved in maritime import and export activities in Djibouti. These small and medium-sized businesses play an important role in Djibouti's economy.

Djibouti has certain natural assets that might be exploited for tourism, undiscovered maritime resources that could support greater artisan fishing, and an underwater telecommunications backbone from which to establish new technological and service sectors. Djibouti has possibilities for sustainable energy, including geothermal energy and solar.

Some of the recommendations for the country to develop its hub are:

Djibouti's primary sources of revenue include port services, logistics, and maritime trade, which benefit from its advantageous location along key international shipping routes. Furthermore, the country generates revenue by acting as a transshipment focus, allowing the transportation of goods to neighboring East African landlocked countries. Foreign military sites, tourism, and humanitarian aid are all significant sources of revenue for Djibouti.

- Facility investment: Djibouti ought to focus on investing in the growth of its port facilities to handle larger vessels and improve its operational effectiveness.
- Logistics improvement involves the adoption of new technology and procedures to expedite freight processing and transit inside Djibouti's ports.
- Regulatory Modifications: Clarifying shipping procedures and improving openness might help firms avoid delays and unpredictability.
- Collaborative Projects: Djibouti should encourage collaborations to promote knowledge sharing and interactive investment efforts.
- Enhanced Security Measures: Improving marine security initiatives are critical for protecting activities and fostering a safe environment.
- Evaluating the effect of bigger investment in port facilities on trade volume and operating productivity.

- Consider the challenges and facilitators of implementing advanced technologies in shipping operations to achieve productivity advantages.
- It should also encourage the creation of employment and examine the practicality of training and capacity-building efforts intended to equip the young generation with the skills required to work in the maritime industry.

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