

FREIGHT FORWARDERS' ROLE IN EFFICIENT PORTS

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ABSTRACT

Freight forwarding contributes to international trade and is a vital link in the business-to-business value chain. Air and sea transportation users connect manufacturers (exporters) to customers (importers) or the final consumption point. While ports are a critical link in this value chain, their role extends to advancing global trade, increased economic activity, and national wealth creation. How freight forwarders and other port users perceive a port, its performance, the value it creates, and overall efficiency in handling freight could influence their port choice. The Durban Container Terminal (DCT) was perceived as the best seaport on the continent in 2013 and has since dropped to the last position on the global Container Port Performance Index, ranking 351 ports worldwide. This ranking was based on perceptions of poor customer orientation and service quality. The perceived inefficiency translates into higher handling costs, more expensive storage, and delivery delays for the stakeholders. However, the Durban port remains somewhat strategically situated and is the busiest container terminal in sub-Saharan Africa, handling most containers entering and leaving South Africa. The DCT's ability to reposition itself to meet the basic expectations of its users will not only make it attractive but also boost its competitiveness. This study is interested in uncovering the perceptions of these users.

Keywords: Seaports, maritime, South Africa, Durban Container Terminal, freight forwarder.

1. INTRODUCTION

Managers are concerned about strategies to improve their value proposition to customers, who will return the gesture by demanding more of their products and services on offer (Gamble, Peteraf & Thompson, 2021). Effectively, all organisations aim for higher demand, growth, competitive ability, and sustainability (Ehlers & Lazenby, 2019). Merchandise must be moved along the value chain, from the point of production to the point of utility, and while more than 90% of all trade on the African continent is contingent on maritime transportation, seaports, where volumes of merchandise pass through, are a vital link in the value chain of any organisation competing for higher demand (Sakyi, Darku & Immurana, 2021). Shipping lines can choose among a variety of seaports for maritime transportation and their choice is based on the performance and efficient management of the seaport. This results in intense competition among seaports to offer freight handling services, reduce costs and create value for their customers (Quintano, Mazzocchi & Rocca, 2020). Port efficiencies and how it eventually translates into the efficiencies of their stakeholders is therefore worthy of investigation.

2. BACKGROUND

A wide range of port users are involved in maritime transportation, which comprises many procedures, information exchange and formalities (Tijan, Jović, Jardas & Gulić, 2019). Such port users include importers and exporters, shipping line operators, freight forwarders and custom brokers (Ugboma & Oyesiku, 2021). Pallis and Vangelas (2014) refer to three stakeholders groups: freight forwarders, supply chain partners, and shipping lines. Port users have a number of ports to choose from, and in South Africa, there are eight, of which the Durban Container Terminal is the main container port (Transnet, 2022). Users tends to choose service based on utility, and in the case of seaports, utility is defined in terms of efficiency – speedy container handling and swifter ship turnaround times (Tijan *et al.*, 2019). Comparison of seaport efficiency among researchers and policymakers is not new, but scant research has been conducted on this topic on the African continent (Quintano *et al.*, 2020; Sakyi *et al.*, 2021).

Countries aspire to have efficient logistics sectors, as it is one of the main contributors to a sustainable growth strategy (Alcántara, Fernandes & Hillberry, 2015). Most nations attempt to reduce logistics costs and further explore means of improving the quality of services to allow for a more efficient and timely movement of goods locally, further paving the way for international trade (Alcántara *et al.*, 2015). Suárez-Alemán, Sarriera, Serebrisky, and Trujillo (2015) refer to ports as gateways for international trade and further deem them crucial for national competitiveness. Mlambo (2021) concurs by stating that when a port is efficient, its efficiencies can be directly translated into the country's potential economic growth. Therefore, port efficiencies could potentially increase or decrease the cost or market value of manufactured goods (Tijan *et al.*, 2019).

An efficient port is one that simplifies the lengthy flow of international cargo between the seller and the buyer resulting from long lead times (Tijan *et al.*, 2019). In global trade, however, many commercial and regulatory processes and other inefficiencies increase cargo dwell times (Mlambo, 2021). Researchers are still searching for the root causes of the impeded flow of cargo, caused by inefficient operations in particularly sub-Saharan seaports (Ojadi & Walters, 2015).

The purpose of this paper is to investigate and report on the performance of South African seaports, their rival seaports, and the global performance benchmarks used to rank seaports. There are two objectives addressed by this theoretical paper. Firstly, this paper will explore the concepts of seaport performance and performance benchmarks, by probing academic literature on the concepts. The second objective of the paper is to recommend the way forward based on our findings.

This paper therefore proceeds with a literature review on the various aspects surrounding port efficiencies, placed in the context of freight forwarders as stakeholders at South African ports. The content of this paper illustrates the constructivist approach applied to make recommendations to South African port authorities. The findings that follow may be useful for policy makers, education managers and scholars of school education, dynamic capabilities and knowledge management. This paper may have theoretical implications for South African scholars of the maritime industry as it brings together many aspects of the industry that have been investigated elsewhere, but to a limited extent in the South African context.

3. LITERATURE REVIEW

The rationale behind this section is to mainly amplify the important role ports play in the country's economic growth through international trade. Further outlining how the lack of efficiencies in the ports can be filtered down into becoming its stakeholders' main challenges.

3.1 The Significance of Ports in International Trade

Notteboom, Pallis and Rodrigue (2022) state that ports should be more than mere entry and exit trade points and aim to add value while doing so. Ports can add value beyond the transportation and logistics processes, such as impacting hinterlands (Song and Van Geenhuizen, 2014; Notteboom *et al.*, 2022), notably marine towns, local road and rail transport infrastructure. Ports and indeed port authorities create positive externalities when they can provide cost-effective, reliable and frequent spin-offs to their users as these facilitate trade and increase local economic development and country competitiveness (Song & Van Geenhuizen, 2014; Mlambo, 2021).

Accurate representations of ports performance cover three aspects: port efficiencies, effectiveness, and resilience (Notteboom *et al.*, 2022). A port's performance should be understood and frequently measured to benchmark its performance with industry standards and in relation to other competitor ports (COMCEC, 2015). While there are various port facility types and sizes, ports share the same goal, which is increasing their market share in freight transported by sea (Roa *et al.*, 2013). Container handling ports are essential considering that 90% of freight is transported by sea, and 60% of it is containerized (Mlambo, 2021). Container terminals store and stack containers while it awaits import and export document handling (Sakyi *et al.*, 2021). The performance of container terminal operators has become crucial for the coordination of all logistical processes. The performance of terminal operators has thus attracted much interest from scholars, competitor operators, and other port stakeholders (Ojadi & Walters, 2015).

According to Michail, Melas and Batzlis (2021), container trade is one of the major considerations in the choice of seaport or container terminal. This makes 'ports' handling ability, the size of container yards, container handling equipment, and storage facilities, as competitor base, even more significant (Sakyi *et al.*, 2021). None of the African ports are included in the world's top 50 container ports ranking, and most African ports rank very lowly on the United Nations Conference on Trade and Development (UNCTAD) 2020 ranking (Mlambo, 2021). In Africa, the largest and busiest ports are Tanger-Med in Morocco, Port Said in Egypt, and The Port of Durban in South Africa (Larnyoh, 2020). The size of the port is less important than its ability to effectively handle the volumes of cross border documents and turn container ships around swiftly. Tijan *et al.* (2021) found that document compliance costs \$25 on average in OECD country ports, and close to \$285 at sub-Saharan African ports. Furthermore, while OECD country ports require an average of 3.4 hours for document processing, sub-Saharan African ports require 98 hours. Mlambo (2021) found that efficient ports can turn a container ship around in 0,99 days, while in less efficient ports, ships spend at least two days.

Seaports connect the transportation of merchandise from sea to land and land to sea and form the interface between the shipping system and the land transportation system (Tijan *et al.*, 2019). Simultaneously, international trade is crucial for much-needed socio-economic welfare on the African continent, job creation, and for the reduction of

poverty and associated social ills (Mlambo, 2021). Therefore, this much-needed social development can to a large extent be addressed by merely improving the efficiency of African ports.

3.2 Port Classification and Ownership

All countries with seaports have one thing in common, the land on which ports are situated belongs to the respective governments for state security reasons. According to Rodrigues (2020), five-port management models outline the roles played by both public and private sectors. These management models consist of (Rodrigues, 2020):

- *Public service ports* - where the port authority is said to be a branch of a government ministry, owns the infrastructure and performs most of the port-related services itself. This type of model is said to be characterized by inefficiencies, making it less prevalent in many nations.
- *Tool ports* - the main difference with public ports is that these types of ports have private terminal operators.
- *Landlord ports* - these are said to be the most common types of port management. In landlord ports, the port authority is responsible for issuing terminal operating licenses and leases and regulating port standards. At the same time, private operators are responsible for the terminal operation and own the equipment thereof. In a white paper on port ownership and performance, port authorities control most of the seaports in the OIC member countries (Organisation of Islamic Cooperation, consisting of 57 member states in the Muslim world) (COMCEC, 2015). The majority of the OIC member countries use the so-called "Landlord" system, where certain functions are provided by the port authorities, while terminal and cargo handling are performed by independent operators (COMCEC, 2015).
- *Corporatized ports* - in this model, the port authority dabbles in a bit of both public and the private world as ownership and control thereof are separated.
- *Private service ports* - these are wholly privatized and considered the most efficient model to some. The state still regulates these types of ports to some extent. First-world countries typically have better-developed port facilities and infrastructure and invite participation from private operators to take on the financial and managerial responsibility of terminals and equipment as a means of improving port efficiency (World Shipping Council, 2021). European scholars such as Roa, Pena, Amante, and Goretti (2013) were interested in port ownership in Europe and found that increasingly, port authorities allow concessions, similar to franchises, to be privately owned.

In South Africa, the National Ports Act no.12 of 2005 ('Ports Act') gave effect to the establishment of the National Ports Authority (NPA) (currently known as Transnet National Ports Authority) and the Ports Regulator. Also, the Ports Act gave the National Ports Authority the responsibility of administering specific ports and providing them with the required services and infrastructure. There are eight ports, and these consist of the Port of Richards Bay, the Port of Durban, the Port of East London, the Port of Port Elizabeth, the Port of Ngqura, the Port of Mossel Bay, the Port of Saldanha, and the Port of Cape Town. Looking at these five types of ownership, one could argue that South Africa currently implements two kinds, namely the public service and landlord ports, and is aspiring to be corporatized.

The public service port argument stems from Transnet National Port Authority being, according to Transnet (2022), its operating division. Its sister company Transnet Port Terminals (TPT), another Transnet operating division, is the primary container terminal operator across strategic terminals. Further those inefficiencies characterize all the said container terminals. Another indication that these container terminals are public service is the President announced that proposals are required for private partnerships to improve efficiencies in the Durban container terminal (SONA, 2022). This suggests that a public-private partnership (PPP) type of relationship will be established at the DCT. According to the Budget review (2021), PPPs are contractual agreements between the public and private sectors where the project risk is mainly transferred to the private party.

Bichou (2021) suggests that a transition to a public-private partnerships model in South Africa would require private investors with a significant appetite to invest in the current capital layout. The landlord port model is implemented on all commercial ports of South Africa, while aspirations to become corporatized are prescribed in section 3 (2) of the Ports Act. The notion also comes as President Ramaphosa announced and Minister Gordhan gazetted that TNPA would be established as an independent subsidiary of Transnet (The Presidency, 2021 and Government Gazette, 2021). It is envisaged that these changes would result in improved efficiencies for the South African ports.

3.3 Port Efficiency

The efficiency of a port is but one component of its overall port performance, the other two being resilience and effectiveness (Pallis and Rodrigue, 2022). In general terms, efficiencies refer to achieving desired results without wasting time and resources. Kasim, Haracic, and Haracic (2018) refer to business efficiencies as more than saving costs and making a profit, but inclusive of noticeable improvements in operational performances, working conditions, customer satisfaction, and overall service rendered. According to Notteboom *et al.* (2022), port efficiency is just as multifaceted as it goes beyond just focusing on traditional port terminal efficiency indicators. Standard port efficiency indicators measure "berth occupancy, revenue per ton of cargo, capital equipment expenditure per ton of cargo, turnaround time, and the number of gangs employed to facilitate cargo operations" (Notteboom *et al.*, 2022). These measures focus mainly on the operational performance of the integrated system of land, terminal operation, and marine services, all of which are crucial to port users.

According to Pallis and Rodrigue (2022), port efficiencies have other aspects that need to be considered that are just as important as port operations. These include the port's "governance performance; safety, security, and occupational health; socio-economic contribution; ability to capture the market; environmental performance, and connectivity performance" (Pallis and Rodrigue, 2022).

This notion is evident in how stakeholders in the maritime industry tend to consider several factors when choosing a port, such as suitable infrastructure, container handling capacity, port location, and most importantly, the downside of escalating charges resulting from delays, which tend to increase as efficiency decreases (Ugboma & Oyesiku, 2021). A vessel's time in a port result in higher costs reduced productivity, and perceptibly, shipping lines demand fast container handling and shorter ship turnaround time (Mlambo, 2021). Costs incurred in this manner tend to increase freight charges, which, when passed down the value chain, inevitably lead to a higher final price, or lower profit margins depending on the elasticity of demand (Sakyi *et al.*, 2021). Therefore, if the volumes of containers with

cargo outweigh the cargo handling capacity, inefficiencies result, and port congestion, leading to costly delays, make such a port unattractive to shipping lines (Ugboma & Oyesiku, 2021).

Port location is another significant consideration in the choice of port (COMCEC, 2015). Shipping lines take note of their alternatives when selecting the cheapest and fastest route through their value chains (Mlambo, 2021). For instance, neighbouring Namibia's Walvis Bay harbour, despite its distance from any South African destination, is often chosen as an alternative to the congested Durban Container Terminal (DCT) where costly delays and slow ship turnaround are the order of the day (Namport, 2022). The Walvis Bay harbour is significantly less congested, and has less infrastructure such as cranes, tugs, and container berths, yet the cargo-handling capacity is sufficient to compete with some of the biggest ports in South Africa (Amakali, 2017).

How efficiently a port is managed can be translated into the country's potential growth (Mlambo, 2021) and sustaining an efficient port requires large effort to ensure optimal operational performance, promoting trade (Mlambo, 2021). Authors such as Mlambo (2021), and Nze and Onyemechi (2018), have concluded that poor port efficiencies impact transport costs and that shipping lines and land carriers are most affected. Although many previous research studies have proven the positive relationship between port performance and trade (Sok, 2016; Munim & Schramm, 2018; Mlambo, 2021) there is little investigation into port efficiencies directly impacting the efficiencies of its other stakeholders. Tijan *et al.* (2019) suggest the "single window" concept, as a possible solution to multiple submissions of the same documents to authorities, to facilitate and simplify the exchange of volumes of documents accompanying cross-border trade. Through electronic trade facilitation, the volumes of documents currently generated, while necessary, could be reduced and prevent costly delays that slow down operations (Masudin & Kamara, 2017).

Digitization may also be an option for increasing port efficiencies (Thai, 2015). For example, a digitized port may in the end multiply its productivity, as the increased efficiency in handling larger volumes of cargo will enable such seaports to recover their investments in digital technologies quicker and become more competitive and thus more profitable (Agatić & Kolanović, 2020). Digital technologies available to seaports include cloud computing, artificial intelligence (AI), and sensor technology, that enables devices to collect data such as noise and movement from the environment (IOT Agenda, 2019). In 2017 already included a strategic blueprint, called Transnet 4.0 as part of the SOE's Market Demand Strategy (MDS) (Transnet IR, 2017). In 2021, Transnet became a victim of cybercrime (Dagada, 2021), which caused severe disruption in logistical bottlenecks and cargo dwell time, logistical bottlenecks, and cargo dwell time to the Durban and Cape Town harbours (Daily Maverick, 2021).

Therefore, while the organisation is slow to implement its 2017 Transnet 4.0, strategy it is ill-protected against cyber-attacks, which, such as the July 2021 incident, left the organisation, and indeed the national economy, with lasting damage, further compounding current economic fragility (ISS, 2021). Ideally, a 4IR strategy needs to be implemented simultaneously with maritime security legislation and in collaboration with other government departments, such as the South African police, and cyber experts (ISS, 2021). Therefore, leaders and managers of port authorities must become aware of the drivers of seaport selection (Sakya *et al.*, 2021). Armed with such knowledge, these managers and leaders may be able to manage their systems better, become a digitized port and through these efforts, better manage stakeholder perceptions (Masudin & Kamara, 2017).

3.4 Port Stakeholders

Notteboom and Winklemans (2022) identified four groups of port stakeholders namely external, internal, communities, and legislative or public policy stakeholders that have the potential of either influencing or being influenced by the operation of ports. The focus of this paper will be on freight forwarders who form part of the external stakeholders. However, in this section, our discussion is deliberately limited to a focus on employees and the community, with a separate discussion of freight forwarders to follow. South African ports are labour-intensive, in that most port equipment is manually operated. Employees as stakeholders contribute greatly to the port's success or failure. However, this depends on whether they are empowered and realize their involvement in their 'employer's ability to deliver efficient service (Masudin & Kamara, 2017). The power of the employee's contribution was demonstrated during the July 2019 Transnet go slow at the Port of Ngqura. According to Stoddard (2019), the go-slow consequently affected the performance of other container terminals in South Africa slowing down trade and resulting in more inefficiencies.

Employees are also of interest as there is not much said about their role in a world where digitization, automation, artificial intelligence, and privatization are regarded as being some of the answers to achieving efficiencies. According to Buck, Gradertchik, and van der Deijl (n.d.), the use of a combination of digital technologies can offer ports an opportunity to have more efficient processes. Earle, and Shpak (2019), have suggested however that although most private owners are, "profit-driven, have access to skills, markets, and technology", all these can be used to increase output, employment, and even productivity. To port users, the efficiency of ports may impact the local community at the port city, by contributing jobs to the labor market, and developing the hinterland road and rail infrastructure (Masudin & Kamara, 2017). According to Song and Van Geenhuizen (2014) for every job created by the seaport, two jobs are created in the port sector and four jobs are created in the indirect environment. The ripple effect thereof can be translated into the businesses of freight forwarders and other users too.

3.5 South Africa's Largest / Busiest Port

The Port of Durban is, according to Arjunan (2004), strategically positioned as a hub to facilitate international trade between Europe, Africa, both South and North America, and the far East. The Port of Durban is the busiest multicommodity handling port with the most central and most active container terminal in the Southern Hemisphere (Ports Regulator South Africa, 2015). With more than 60% of all containers entering or leaving South Africa handled at the port of Durban, the container terminal is of interest in this paper. According to Transnet (2022), the Durban Container Terminal is made up of two piers, namely Pier one (1), which has a capacity of 0.7 million (m) twenty-foot equivalent units (TEUs), and Pier two (2), with a capacity of 2,1m TEU's.

3.5.1 Challenges and the Future Potential Thereof

According to Bichou (2021) and Mlambo (2021), container terminal efficiencies in the region and the rest of the globe have improved in the past ten years, while those in South Africa have deteriorated. The International Transport Forum (2014) once referred to the Port of Durban as "the main gateway and hub for Africa." Today, the Port of Durban is mainly characterized by its size in the Southern African Development Community (SADC) region. The Container Port Performance Index 2020 did not do it any justice either, suggesting that the DCT was the worst-performing port of 351 out of 351. The World Bank has released the Container Port Performance Index (CPPI) for 2020; the report compares

and assesses container port's performance across the globe. According to the World Bank (2021), the CPPI was developed to enable the measurement of the seaside customer experience and not how customer freight is handled. Key stakeholders around the globe use these findings to make decisions to explore various maritime interests, logistics, and supply chain services. The CPPI is further used to identify gaps and opportunities in the global supply chains and is central to the growth strategies of many emerging economies (The World Bank, 2021).

The 2020 CPPI was measured using two different methodological approaches; the first is termed the administrative approach, which is said to reflect expert knowledge and judgment (The World Bank, 2021). In this approach, the score becomes negative, where a port compares poorly. The second method is the statistical approach, and it is calculated using a factor analysis (FA). The resulting total scores are standardized, with a negative score indicating a better than average performance (The World Bank, 2021). Of the 502 ports considered, only 351 ports were included in the 2020 CPPI.

According to the World Bank, 2021, poorly performing ports are characterized by:

- Limitations in spatial and operating efficiency.
- Limitations in maritime and landside access.
- Inadequate oversight.
- Poor coordination between the public agencies involved.

These characteristics are similar to the challenges raised by various studies cited by Bichou (2021) in his findings on South African port efficiencies:

- Expensive ports.
- Poor hinterland connectivity that results in port congestion.
- Terminal performance below the global average, resulting in undesirable turnaround times.
- The inefficient use of infrastructure capacity adds to logistics costs.

The impact challenges can be seen in some shipping lines diverting away from the port of Durban to the neighboring ports (Nampont, 2022). It is not all gloom and doom, as the Port of Durban is crucial for South Africa's economic growth. According to Mlambo (2021), the Durban Container terminal has the potential to emerge as a significant hub for containers. President Cyril Ramaphosa, in his 2021 State of the Nation address, also mentioned plans to reposition the Port of Durban as a hub port for the entire southern hemisphere. According to Bichou (2021), for the Port of Durban to reach its potential solutions, turning it around must occur in stages. Two proposed solutions entail embracing what the fourth industrial revolution offers through modernized equipment and the privatization of terminal operations (Bichou, 2021).

The Comprehensive Maritime Transport Policy (CMTP) (2017) encourages the use of technology to improve efficiencies and reduce costs to market in the maritime industry. Furthermore, President Cyril Ramaphosa, in his 2022 State of the Nation Address, announced that Transnet would be 'asking for proposals from private partners for the Durban Container terminal and that this partnership would be in place by October 2022'. Thus, suggesting that, like other terminals around the region and world, South Africa is experimenting with the thought of privatizing. The partnership could assist the DCT in potentially lowering the cost of doing business for port users like freight forwarders.

3.6 The Significance of Freight Forwarders

Freight forwarders are one of the major stakeholders in transport and logistics. According to Saker (2017), they are crucial role-players as intermediaries between manufacturers, shippers, carriers, and end-users. According to Menon (2021), freight forwarders' services entail arranging inland transport, port and customs documentation, shipping via ocean vessels, and facilitating all other supplementary activities in the value chain. Freight forwarders provide their clients with lower prices in addition to expert advice around import and export document requirements (Zeya, 2017). Through the use of technology, freight forwarders can offer lower prices to meet their customers exporting/ importing budgets (KARGO, 2017).

Since the use of containers to transport large volumes of cargo, freight forwarders have endeavoured to facilitate and ensure the seamless flows of logistics supply chains. Their operations depend greatly on-air transport, land (road, pipeline, and rail), and sea transport. Sea transport is the most cost-effective model for transporting containerised goods, raw materials, and hazardous or dangerous cargo (APA, 2019). Hence just about 90% of all global trade is transported via sea (ITF, 2014). They are making the role of ports as entry and exit points of global trade significant too. According to Ugboma and Oyesiku (2021), organisations that outsource freight forwarding services are, in a way attempting to reduce their logistic expenses as the logistics of performing this function internally could take away from the organisation's ability to focus on its core competencies.

Therefore, the role of freight forwarders is more than just facilitating goods from manufacturer to the final customer (Nurwahyudi & Rimawan, 2021). Freight forwarders suggest the best possible solutions to the exporter, arrange cargo space, coordinate freight insurance and are involved in the transport from end-to-end (KARGO, 2017). In addition, they work closely with customs officials ensuring document compliance. Typically, they possess different expertise, ranging from handling perishable to hazardous cargo (Nurwahyudi & Rimawan, 2021).

3.6.1 Challenges Experienced by Freight Forwarders in Ports

According to Hanif & Kaluwa (2016), challenges faced by freight forwarders are complex as this entail facilitating the movement of international trade. Nations around the globe aspire to have a trade logistics system that can transport their merchandise across their borders in a swift, reliable, and affordable manner (Hanif & Kaluwa, 2016). One of the main challenges associated with the facilitation of international trade is exorbitant transport costs. According to Sanjai (as cited by Vasantha & Meena, 2019), the relationship that exists between technological advances, investment in infrastructure, and new service types could assist in reducing the cost of logistics.

Vasantha and Meena (2019) further state that the core aspect of freight forwarders organisations is its customers. Hence, the need to ensure the value of their services to these customers is deemed crucial. Like in any other business customers of freight forwarders want value for money. Thus, most organisations exporting or importing have attempted to go at it without these services as an attempt to cut costs but realised that it is tough (Vasantha & Meena, 2019). The table below outlines challenges experienced by freight forwarders.

Table 1: Challenges experienced by freight forwarders

| Author | Challenges |
|-------------------------|---|
| Hanif & Kaluwa (2016) | <ul style="list-style-type: none">• Port efficiency.• Transit border delays.• Customs documentation. |
| Vesantha & Meena (2019) | <ul style="list-style-type: none">• Lacklustre multimodal transportation.• Contract management with importer/exporter.• Lack of advanced port equipment & infrastructure.• The efficiency of customs clearance.• The transparency of custom clearances. |
| Thuermer (2021) | <ul style="list-style-type: none">• Capacity issue.• Digital forwarding.• Agility & flexibility.• Sustainability. |

The challenges raised by these three authors are similar in that, i.e., customs and documentation processes are detrimental to all freight forwarders. These even affect those who have embraced technology and become digital forwarders. Systems used for clearances are not as advanced or integrated, thus resulting in slowed services and increased costs. Another challenge that is common is capacity issues. Consumer demand is said to be soaring with the rise in e-commerce. Thus an increase in e-commerce has resulted in ports needing to invest in improving infrastructure (i.e., deepening berths, etc.) and investing in advanced port equipment to improve efficiencies in efforts to increase efficiencies.

3.6.2 Resolving Freight Forwarders' Challenges

The first proposed intervention for resolving freight forwarders' challenges entails an efficient information system and procedures for custom clearances. According to the United Nations Economic Commission for Europe (UNECE) 2003, efficient information systems and processes could reduce bureaucratic red tape, save time, increase the speed of goods movements, reduce costs and further improve the country's economic performance. According to the UNECE, 2003 and Tijan *et al.* (2019), the solution is to accelerate electronic data exchange via creating a single-window environment. A single window environment is a single-entry point used by all stakeholders in international trade to submit information and documents required for the facilitation of trade (UNECE, 2003). The second intervention entails improving port efficiencies. These cannot be looked at in isolation as capacity, infrastructure, and the state of the equipment also contribute to the challenges faced by freight forwarders.

4. DISCUSSION OF FINDINGS

The literature studied informed us that many authors around the world have been interested in understanding seaport efficiency from the perspective of users and stakeholders. For example, a study by Agatić and Kolanović (2020) summarised 15 publications around the world and found that there is no uniform definition of what users consider to be quality service. Similarly, the overall efficiency of South African container terminals has deteriorated and various reports around the world have highlighted various reasons (Bichou, 2021). Since these processes impact users and stakeholders, it is worth investigating and understanding the extent of this impact, and perhaps even attaching narratives and figures to it. The various recommendations from authors such as Bichou

(2021) and Mlambo (2021) include those ports authorities must invest in digitization to improve efficiency, as well as consider a change in business processes to improve document handling. In addition, there is the suggestion by Tijan *et al.* (2019) of the single window concept, and these improvements to port efficiency may be considered favourably by freight forwarders as private sector stakeholders who operate close to port operations.

Freight forwarders also work closely with ship and cargo owners, and in that role, they are well informed of the best options to save their customers money (MG, 2021). They are ideally placed to point out the best ports for efficient cargo handling, document processing and safe cargo storage. Freight forwarders acting as agents on behalf of their customers may also influence the port their customer chooses, and point out the most attractive ports (MG, 2021). As stakeholders freight forwarders may exert pressure on ports to speed up the improvement of business processes, digitization, or modernisation of infrastructure. However, the role and impact of freight forwarders stretches beyond cargo handling and document processing at congested ports. Freight forwarders are vital instruments in the timely delivery of merchandise following higher demand since the country started recovering from Covid-19 (MG, 2021). As such, basing their choice of seaport on the criteria of less congestion, ease of document handling and faster turnaround times, can either advance a port's competitive ability (MG, 2021). A search of the most recent publications appearing on the Ebscohost and Google Scholar databases has not shown any articles related to freight 'forwarders' perceptions on port operations or efficiency. A possible future article may shed light on this interesting perspective, which will address a gap in our knowledge and serve as a possible suggestion to port authorities.

5. CONCLUSION

This paper has investigated port efficiency by studying the most recent literature on the topic. We have placed special emphasis on stakeholders, especially freight forwarders, instrumental in the value chain that deal with major challenges in getting goods to consumers, in good time, while keeping costs low. However, despite their best effort, freight forwarders have no control over cargo handling speed, document processing and other business processes, or hinterland road and rail infrastructure. In this paper we have identified the major issues freight forwarders may experience that could impact seaport choice. The way forward now is to interview such users and learn their perceptions of the challenges and understand their eventual choice of seaport. Armed with such information we could advise port terminal operators such as Transnet Port Terminal and aid in their business process improvement.

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