

THE REQUIREMENTS OF AGILE PRICING POLICIES TO BUILD A COMPETITIVE MARITIME SECTOR: REFLECTIONS ON THE EGYPTIAN PORTS

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1. ABSTRACT: The strong growth of world merchandise trade recorded the highest in 2017. This was the strongest indicator within a period of six years carrying a ratio of 1.5% which is far above 1.0 the ratio following 2018 financial crisis. The period up to 2023 carries positive prospects for short and medium term and will yield to a growth of global GDP by more than 3.0. This paper is coming in the light of the two decrees that had been issued by the Egyptian Government #800 for the year 2016, and #488 for the year 2016 which had set the different pricing for the different services for the port users. The question arising and addressed in the review across the research study sheds the light on the inability of the Egyptian Economy to hunt the opportunities of this GDP growth and the increase of global sea born trade. The weakness that stands as an umbrella hindering Egyptian ports to carry on these positive forecasts is the non- agile policy setup of their pricing systems. On the academic level, the paper tries to study about the competition and how the pricing system in ports to be determined worldwide. The paper in hand, tried conceptually through review to present

a typology accounting for the challenges that face the Egyptian ports in setting competitive pricing system and it allows the venue for more empirical studies in this direction focusing on comparative in depth analysis of specific ports that could be studied in the future to extend the research in this field. Moreover, it presents a qualitative primary researched plan that will tackle the leakages for the Egyptian Ports' services in building a competitive edge reflecting the challenges they face in their rigid pricing strategies. Such rigidity in terms of price setting has decreased intra-port competition as well as inter-port competition between different terminals and among firms performing in the port and it reduced the transit- shipment activities at some ports.

Keywords: Pricing policies, Seaports, Port competition, Port pricing challenges, Competitiveness, Agility, Resilience.

2. INTRODUCTION

The ports industry has turned into a competitive industry, as the competitiveness of seaports has had little importance in the past two centuries, and these variables have contributed to the development of maritime ports' functions throughout five generations. The main difference between the three generations was related to the port's infrastructure, activities and services provided while the information systems and the smart port are the hallmark of the fourth and fifth generations (Zhou,2015).

The competitive port is the port that is chosen more regularly than other ports for its innovation and operational agility indicators. It

achieves growth in its trading rates and market share and is able to provide all the facilities that customers need with the highest possible efficiency and in the lowest possible time and at the prices distinct from other ports and able to attract more customers. The Determinants of Ports' Competitiveness are the location, the updated infrastructure, the quality of facilities and the efficiency of operations in which the prices are considered very important factor (Younis, Z.,2017). Operational agility stands as an indicator for the port' success in exploiting both revenue enhancing and cost cutting opportunities to reach a competitive edge and it could be considered as an umbrella for pricing policies settings (Lewis,2014). A dynamic for an agile pricing system for the Egyptian ports is crucially needed especially for these huge challenges under the present circumstances of the new normal arising from Post-Covid epidemic.

3. LITERATURE REVIEW

3.1 The changing nature of competition along with Covid19 implications for a new normal wave

Ports play a crucial role in Multi-Modal transportation. Whether sea freight carriers working on a business to business or business to customers, the risks are very high. There are regulations urging developing countries to give priority in the improvement of ports facilities and service delivery as it is the hub of logistics network that coordinates the operations of service providers in a global sense including roles and interactions at work. (Oanh Nguyen et al, 2015). In 2017 there was an increase in the volume of world merchandise trade by 4.6% in comparison to 1.5% in 2016. The cross-country variations in trade compensated for the overall decrease in the growth rate of trade at 2018, as emerging Asia and Latin America had the highest trend for the Growth in trade While Africa and the Middle East has the lowest trend, due to the slowdown in their emerging economies and low oil price levels (UNCTAD,2018).

The innovation in new technology allow existing services to be upgraded across borders. The globalization of services drives the development and growth of new services sectors, and new ways of delivering services are existed such as the adoption of digital technology, the direct access to online markets and the online Shopping

and the Shopping through the social media (World Trade Report ,2019). Other tensions that needed recovery by agile actions were the fragile recovery in Europe after the 2008 economic crisis, diverging outlooks for net oil consumers as well as producers, challenging international alliances between giant shipping cargo handlers in the maritime sectors monopolizing the market, and potential slowdown in developing economies especially the emerging ones. According to UNTACD report in 2015, the ten ship owning countries are from Asia, Europe and from America, with Greece on top with an increase of 29% in service companies from 2004 till 2015.

All of these challenges and changes had put pressures along with the competition between ports to update their pricing mechanisms, the paper is to discuss the changing nature of competition in ports, what are the ports' pricing principals, considerations and determinants, and what are the leakages for the Egyptian ports.

Vertical relationships are what describe global seaborne trade in our century, they include both gateway and regional ports; dry and seaports as well as the hub and feeder. The most important notion is that the rail service providers operating horizontally are no longer considered a virtue as cooperating vertically is the name of the game. To reach an increasing level in the development of seaports, governments should base their budgets in an agile operational investment strategy of engaging in both horizontal competitions to gain market share and vertical collaboration to create facility use in supply chain. (Song, 2003; Hoshino, 2010; Sjostrom, 2010). Operational agility helps to reduce the well-known "double marginalization" problem, (Van De Voorde and Vanelslander,2009). Moreover, it helps in setting clear pricing systems for services rendered in several ports.

The market power that plays a significant role in ports efficiency depends on key strategic factors:

- Geographical characteristics
- Access to channel depth.
- Feeder and Multi modal connectivity.
- Services logistics; reliability; stability and client relationship management and communication. (Tongzon, 2007; Chang et al, 2008).

Setting strategic policies for agile pricing can be an important challenge when it comes to Egyptian ports for various reasons:

- First, dynamics of competition set fierce rules on the level of the port's strategic role in relative to others.
- Second, pricing systems should follow the dynamics of market competition and they should be set to face corporate objectives and achieve socio-economic development strategy.
- Third, governments should be involved to monitor and control price setting to decrease monopoly power.
- Fourth, there are conflicting interests in the role that ports play on the level of the country as a matter of national security on one hand and as a matter of public asset to play a role in trade promotion and development. Moreover, ports play a dynamic role as business entity striving for financial profits in rendering maritime services.
- Fifth, Container freight cost volatility as ship bunkers fuel cost have fallen and usually as a result it reduces ship operator expenditure and rates paid by shippers, therefore it requires a legal and regulatory framework to protect it from fluctuations.
- Ports in general are a part of Multi-Modal transport network which has different types of hinterland connections; sea freight cargo and specific rules and regulations to follow.

Therefore, port pricing is complicated by this supply chain where many entities play a crucial role in its determination. (UNCTAD, 1975). Moreover, General reduction of seaborne Trade and Ports' economic activity due to health measures restrictions related to Covid19, shown in several cargo pricing threats as the oil trade is facing the steepest fall since the 1970 oil crisis with a seaborne oil-mile trade of 5.0% in 2020 which is a - 6.6% from 2019. The dry bulk carrier trade as well is falling with 3.9% and projected to continue till 2021 and the container sector fell to consumer demand in key

region under significant pressure with a -10.5% which marks a decrease of -20% in our Egyptian ship building forecast for 2020 (Unctad,2020).

- On the operational level, the disruption of trade market and the lockdown has affected the levels of operations in different ports nationally and internationally regarding the manpower restrictions and several hygiene factors and health precautions. The crew changes and the port acceptance as well the delivery of ships is the major challenging factor regarding operations in Egyptian ports striving to diplomacy to ensure the activation of contract closures. The ship operating costs and freight rate fluctuation; reducing the waiting time in sea ports and the agility trend implemented to adopt different innovative ways to alleviate budget constraints are major challenges as well. Gaps in volumes coming into Egypt's ports created general pricing fluctuations and challenges in Maritime HR management capacities.

This lies in the shock uncertainty that remains in the outlook economically and operationally for supply trends for Egyptian ports. The port industry in Egypt is facing competition and economies of scale; fast IT platforms development that needs implementation; global economic uncertainties and major societal expectations regarding health, safety and security. Some of the specific adverse effects of Covid19 on ports' management policies of its employees can be listed specifically as follows:

- Adoption of precautionary measures and work reduction hours between 2-15%.
- Laid off labor between 10-20%.
- Additional tasks in some departments towards laying off some professions.
- More reviews required in terms of IT infrastructure and capacity.
- Remote management and work operations.
- Delay in ports development projects and maintenance of ports' equipment's spare parts and some are very feasible in Alexandria ports (Ming, 2020).
- Supply chain shortage.

3.2 The Port Pricing Principles

Ports carry many definitions to many scholars as their role changed from just a point of receiving and delivering cargos to a crucial entity in a worldwide logistical system of transportation. (Goss,1990)

It is becoming a gateway for trade and an interchange between land and sea transport in the delivery of goods and services. Several operational process definitions look at ports from the perspective of services of transit; loading; mooring and warehousing. These items represent the port product in a chain of consecutive links and the port pricing system facilitates the utilization of ports assets within this loop of interconnections with maximization of profits. (Suykens and Van de Voorde, 1998)

The technical progress in operations of goods and services sets all old pricing systems in backwards positions. Therefore, a whole new strategy depending on agility should take place taking into consideration the following factors:

- Relating financial charges to service rendered to ports following international standards.
- Port investments and technical progress given their shorter useful life than was the case in the past.
- Utilization of installations. (Meersman et al, 2003)

4. THE DETERMINANTS OF PRICING IN PORTS

Ship operators and cargo owners play a crucial role in setting prices. The ship operator looks at the value of the product as it has a higher value at land and sea connecting point in the market area than the production area. There is also the difference between the value of shipment point and the value at the point of production minus the cost of product transportation from one point to the other and this should be the area to which the cargo owner looks. (Meersman et al,2014).

The revenue to the port authority is calculated by the benefit of the cargo owners and ship owners as a flow and charge respectively. Port authority cannot risk dryness of cargo flow by charging the cargo owners

more than the benefit costs created by the port. As competition is fierce ports are easily replaced by price bidding from one transaction to another and from one port to another. So, cargo owners will easily change destination routes of their cargos if antagonized by price monopoly of certain ports. (Haralambides et al, 2001). As a result, the economic operations of the ports have to act on a cost benefit chart where in order to set a niche in the market fierce full competition: the flow of benefit has to exceed the flow of costs.

The financial terms of identifying the efficiency of pricing systems in ports depend on the quantification of benefits that ports present. Once expressed as a financial flow, the benefit can be re-allocated through the pricing system. (Meyrick, 1989).

5. PRICING CONSIDERATIONS

5.1 Reflections on Egyptian ports

The similarity between ports is rare. There are lots of key market players involving: shippers; brokers; agents; forwarders; shipping companies and trade unions. Moreover, there is a great possibility of substituting one port for another which creates high demand elasticity. (Suykens and Van de Voorde, 1998).

Various market players need usually an alignment with government regulations when it comes to pricing systems settings. Their strength will be also exposed to change during the course of time and so will be the port authority. (XIAO et al, 2012). The Egyptian ports authorities are facing a challenge of achieving a competitive advantage in development of both its infrastructure and superstructure while aligning its pricing policies with the global market trends and players. The Sophistication of the process implies designing and selecting requirements for pricing systems matching worldwide standards and operating in an agile perspective putting the pricing indicators into strategic action combining efforts of the government and private sector in parallel. However, in doing so, Egyptian ports will face the following challenges that are not only global but must addressed specifically within each nation according to its capacity: (Welch,2019)

- Forces of demand and supply.
- Growing risks of automation and digitalization.
- Industry monopoly.

- Port services facilitation.

Although Egyptian ports enjoy a considerable number of comparative advantages as the supreme strategic location between three continents, and the presence of Suez Canal linking east to the west, there is a wide lack of competing advantages standards that are enjoyed among its rivals: Pricing system agility and responsiveness to market forces is foreseen to be a maneuvering requirement towards gaining this competitiveness edge. Within this context, the regulation of port pricing structures would entail transferring the Egyptian port from just a gate of cargo delivery to a commercial service center that contribute to the economic welfare of the maritime sector as a whole. Several governmental regulations are needed to achieve a strategic shift towards the formation of pricing systems policies through the acknowledgement of operational benefits of the ports. These requirements have to go in parallel with the following:

- Market indicators for pricing changes and growing demands.
- Transparency needs and agility to face pricing challenges of freights and cargo handling services.
- Customers as stakeholders in the Egyptian ports expecting maritime services providers to help achieve economic growth.
- Climate change adaptation in monitoring energy and transport costs, (Ali,2019).

The sustainability of financing maritime services entails innovative ideas and ways to solve the problems of constrained national budget by adopting several operational agility policies as Public private partnerships.

There are several determinants of International maritime transport costs that reflect on Egyptian ports leakages to achieve a competitive pricing system strategy:

- Incapacity of Egyptian ports in running effective and efficient maritime networks enhancing ports' productivity, operations and tariffs.
- Trade flows, imbalances, volume and type of cargo has a direct impact on pricing systems' arrangements. So, when trade imbalances occur, the imports exceed the exports in the country and the lower freight rates become for the exports.

Trade flows also depend on market structures and greater imbalance of it reflect on pricing.

- The structure of maritime industry competition and supply regulation play an important role as well in the pricing strategies of the Egyptian ports as any barrier to free competition and any monopoly attempt will impact the pricing structure.
- The ships' operating costs and the freight rate fluctuation impact pricing systems as the carrier can anchor the ship but does not offer the transport service and here comes the deficiency of some Egyptian ports' superstructures.
- The shipped product, volume of shipment, trade facilitation, insurance cost and timely delivery are also crucial factors that are considered challenges to the pricing systems in Egyptian ports.
- The continuing trend towards more connectivity within the global shipping network including automation and technology innovation led the port industry itself to become capital intensive in both cargo handling equipment and port infrastructure.

The multi-pricing structures reflect the fact of the complexity of ports 'services regarding operations; functioning; funding; and competitiveness. These variables increased in recent times in consequence of strong competition between alternatives as supply chain in trade and transport, the movement of cargo transport off the congested roads to sea and rail and the high infrastructure cost of ports, (Haralambides, 2002). Moreover, the challenges facing the Egyptian ports would reflect the introduction of globally massive new container vessels that are invading the industry with excess capacity and the efforts of the Egyptian government to face such innovation. The emerging market logistics and the digital freight machinery are also an update of both managerial and technological agility invading the sector, which require a deeper look around the pricing policies used by the Egyptian government in this sector.

The interconnectivity and global openness remain two of the structuring and determining features of the modern world, which have brought considerable benefits to much of the global population and reflected on the Egyptian Economy. Although, growing global economic integration has facilitated productivity gains and their

diffusion, global economic growth, the integration of emerging economies in global markets and the lifting out of poverty of hundreds of millions of people, the technological advances and innovation are not in parallel with the development of Egyptian ports as more digital network need to be allocated.

5.2 Conceptual recommendations

For the Egyptian ports to approach the competitive advantages, they have to achieve improvements for several areas which shall include the enhancing of the quality of services for the harbors and an improvement of the quality of the human capital. It is crucial also for the Egyptian government to encourage the participation of the private sector in rendering the maritime services. The improvement of the administrative system is a must in order to curb the implications of the regulations and to motivate the service performance inside the harbor.

A revisit of the system of the pricing of the services in the Egyptian ports is crucial; the system of pricing needs to be flexible and competitive specially the maritime services. The instability of pricing policy in Egyptian ports doesn't allow them to attract a market international share of the transit trade, and the typology indicators for this phenomena is mainly due to lack of transparency for exchange information and lack of specialized management.

Moreover, the resilience of the Egyptian Economy is under threats and challenges: these include increasing ambitions to tackle existing and emerging vulnerabilities, notably, in supply chains; climate change, and a range of security threats, including those arising from the digital transformation, which is both an emerging source of risk while also offering new solutions to increase adaptability and innovation for resilience. It is also noteworthy that countries are increasingly using economic levers for national security purposes.

Building resilient economy requires a systemic approach to a diverse range of known and unknown risks, to hold an agile pricing system to face adversities. There is a need to understand those sources of vulnerability creating challenge, invest in risk management and strengthen international co-operation to build economic resilience against those severe global disruptions.

6. METHODOLOGY:

The methodology used in this research tried to bridge several gaps of analysis through experiential learning. The focus of the pillars in this study is through content analysis as the researchers try to explore textual data with a view to group together similar types of ideas drawing from the considerable literature on ports in hand and on the content analysis of qualitative research data. Several interviews with Maritime agents and practitioners were open ended questions where the researchers noted phrases and words that summarize the passage of data. These words and phrases accounted for the data selection and grouped together then were reduced to cross cut repetition. These in turn produced list of ideas and headings that accounted for most of the data in this study. A theory is not yet emerged from the categorization of data; however, this conceptual study is an open venue for more fields of research accounting for the current challenges.

7. GAP ANALYSIS:

- The questions that are imposed at this crucial time presented a challenge to the pricing systems regulations worldwide because of the post COVID-19 and they can be research topics for future empirical studies. Such challenges are the type of constraints that will be foreseen in freight markets, the disruption caused to global logistics that might result in fundamental changes to the industry and labor services till the end of 2023 and last but not least the global logistics impacting price increase in the aftermath of COVID-19.
- Very few Literature since 2016 and the rising of the two governmental decrees by the Egyptian authority had tackled the pricing systems especially for the Egyptian ports.
- The competitive edge of this research is bringing upfront the idea of agile policies for pricing systems under the lime light given the limitations in literature related to the Egyptian ports.
- As 2.2% of Egyptian GDP comes from the Blue Economy where sea trade is a crucial part, the question here at the dawn of the Ukraine –Russian crisis is what are the implications of the pricing policies and strategies worldwide?

8. CONCLUSION

No two seaports are physically and economically the same as not two economic crises are the same in challenges and repercussions reflected on the whole maritime sector. Therefore, each economic or pricing analysis should start from the port as a physical entity, taking into account the various activities and the competition with other ports. The Port fees and port services dues for the Egyptian Ports are set by ministerial decrees (decree n# 800 for 2016), regardless of the actual costs and the quality of the provided services.

Although competitive charges have to be set by the Egyptian ports as an essential pre-requisite for competition and efficient management, sometimes there is a clear failure in its achievement which weakens the pricing systems settings and results in extreme rigidity. In this research we do propose a set of questions that given the facts highlighted in the paper concerning the principles and determinants of pricing at ports, does the Port-pricing mechanism maximize the utilization of assets? Does the pricing system of the Egyptian ports account for the interests of the different players in the industry? Do the pricing policies reflect the interests of both the ship-owners and the cargo owners?

While several reports and studies had questioned the logic behind such inefficiency in the of system of pricing for the Egyptian ports, the system had remained in place. Such rigidity in terms of price setting has decreased intra-port competition as well as inter-port competition between different terminals and among firms performing in the port and it reduced the transit-shipment activities at some ports. Rethinking the New Normal economic ways of doing business internationally with a wider scope of Building HR Maritime capacity of handling cargoes, goods and services inside the Egyptian ports while maintaining a stable pricing policy is needed within the scope of research. Reinforcing the capacity of the economic system as well to withstand or absorb a variety of shocks and to adapt or transform itself to bounce forward during the recovery helps in adapting to more agile pricing systems.

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