

Port Communities in Latin America

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ABSTRACT

The increase in the movement of goods through maritime routes has produced the continuous growth of maritime ports. Port activity and maritime transportation significantly impact the global economy, as most of the goods consumed worldwide enter or exit through them. Therefore, it is accurate to conduct a study in order to understand the function and backgrounds of port communities in Latin America.

KEY WORDS: Ports, competitiveness, organization, administration, foreign trade.

Date of Submission: 05-06-2026

Date of Acceptance: 16-06-2025

I. INTRODUCTION

This research aims to carry out a brief analysis of port communities in the Latin American region, the characteristics of port communities in the region, based on the perception that the growth of global trade and maritime transport requires the promotion and collaboration among its main stakeholders to enhance their efficiency.

The theoretical framework includes the theory of public organizations, which provides elements for a better comprehension of the foundations, definitions, and operational models that define the characteristics of public administration. [1]

"Now more than ever, it is crucial to promote collaboration among the participants of the port community in the region to achieve efficiency in the logistics chain and advance towards interoperability in information exchange," stated the Permanent Secretary of the Latin American and Caribbean Economic System. [2]

This study results from the global increase in the movement of goods, requiring the continuous growth of ports. According to UNCTAD, in 2021, 851.1 million twenty-foot equivalent units (TEUs) of containers were handled by ports worldwide. Container traffic in ports worldwide increased by 7 percent between 2020 and 2021. Over the last decade, container movement in ports worldwide increased by 43 percent since 2011. [3]

The global economy is influenced by port activity as most of the consumed goods enter or exit through these channels. Thus, a study will be conducted to understand the function and backgrounds of port communities in Latin America.

II. PORTS IN INTERNATIONAL TRADE

Logistics has permeated modern ports, improving their maritime and transportation infrastructure as well as the rest of their services. The global economy bets on ports as centers of distribution and value-added services. The expansion of port activities encompasses industry, commerce, and administration.

Ports transport a little more than a third of the total national cargo and the most significant portion of export volumes, including oil and derivatives, while operating as platforms for vital industries such as chemical, petrochemical, electric energy, metallurgy, mining, cement, fishing, nautical tourism and cruises, assembly, logistics, and storage activities, among others.[4]

Currently, seaports allow the transportation of a massive volume of goods worldwide, playing a crucial role in international trade demand and developing competition among their various cargo terminals. [1]

In recent years, Mexican ports have stood out for their high growth in handled merchandise volumes, the diversification of their activities, and opportunities for new investments and job creation in terminals, facilities, and port, commercial, and industrial businesses. Today, Mexico has ports that compete for efficiency in container operations with leading ports worldwide and shows significant advances in other types of cargo operations. [4]

"Now more than ever, it is crucial to promote collaboration among the participants of the port community in the region to achieve efficiency in the logistics chain and advance towards interoperability in information exchange," stated the Permanent Secretary of the Latin American and Caribbean Economic System. [5]

A port community is an association of all the parties involved in import and export activities at the port, establishing a common block. The port community typically includes the participation of: port authorities, customs authorities, customs agents, carriers, shipping companies, railroads, among others. [6]

2.1 Port Communities in Mexico

Mexican port communities represent one of the country's most relevant strategic, economic, and political factors due to the significant activity generated in ports in terms of foreign trade (exports and imports), leading to substantial resource mobilization. A large part of this commercial exchange is regulated by the Mexican State, which has maintained a policy of growth and modernization in its infrastructure in order to ensure these port communities function timely and effectively. However, it is not only necessary to have adequate and optimal infrastructure and equipment. [7]

Logistics communities are collaborative instances to generate consensus among the actors in the port logistics chain, discuss local issues, and bridge gaps. [8]

In this sense, there are Port Community System (PCS), which are electronic platform whose main function is to connect the different systems operated by organizations within a logistics port. It is also considered as a shared platform structured, organized, and utilized by different companies within the same sector, namely the logistics and port community. [9]

The main reason for establishing a PCS platform is that port and logistics actors use a large amount of information daily to innovate and optimize processes related to the transportation and logistics of goods. As a result, transport industry must guide its change and effectively implement these innovation processes. [10]

Port Communities are the future of logistics, as an integrated vision is indispensable for improving a port's productivity and competitiveness, resulting in a better offer for foreign trade users and final consumers. [6]

For the purposes of this work, we will only refer to port communities as the "entity formed by a collective of foreign trade and port logistics actors who organize with a common purpose, using technological tools and developing strategies to improve the efficiency, effectiveness, and competitiveness of the ports in which they are established."

That said, it is important not confuse the expression: Port Communities with Port Community Systems since the latter makes reference to IT systems used integrated management.

2.2 Background of Port Communities

Port communities have a rich and diverse backgrounds dating back to the origins of maritime trade. These communities, whether exclusively maritime, port, or logistics, have evolved over time. The backgrounds of port communities span different periods and civilizations throughout history. These communities emerged from the need to manage and facilitate port operations and promote maritime trade and the exchange of goods. Below are some notable backgrounds of them:

The first port communities emerged around major maritime trade routes and coastal civilizations of antiquity, such as the Phoenicians, Greeks, and Egyptians [11]. These civilizations had important ports that served as centers of trade, cultural exchange, and military activities. These ports developed management and operation systems that laid the foundation for modern port practices. [12]

During the Middle Ages, port cities in Europe became centers of commercial and cultural activity. Communities of merchants, fishermen, artisans, and local authorities collaborated to manage port operations and facilitate maritime trade[13]. Many ports flourished as centers of trade and cultural exchange, such as Venice, Genoa, and Bruges.[14]

The age of discovery and colonization by European powers in the 15th-18th centuries, led to the establishment of new port cities worldwide to support trade and maritime transport.[15]

The backgrounds of port communities in Latin America date back to the colonial era and are closely linked to trade, export economy, immigration, urban development, conflicts, and industrialization. "Colonial ports were an integral part of European expansion in Latin America, serving as points of entry and exit for trade and the traffic of people and goods." [16]

"Latin American ports became nerve centers for the export of raw materials and agricultural products to Europe, such as sugar, tobacco, and precious metals." [17]

Many of Latin America's major cities, such as Buenos Aires, Rio de Janeiro, and Guayaquil, emerged and expanded around their ports, making them centers of trade, culture, and services.[18]

The Industrial Revolution increased the demand for raw materials and new markets, driving further port development and the growth of related communities [19]. It also brought a significant increase in maritime trade and the necessity of more and larger efficient ports, resulting in the development of modern port infrastructures and the urgency of more organized port communities.[20]

During the 20th century, technological improvements such as containerization and intermodal transport, radically transformed port operations and logistics [16]. Nowadays, economic globalization heavily depends on

complex maritime logistics networks and highly competitive and advanced ports in order to facilitate trade efficiently. [21]

Port communities, in essence, have continuously adapted over the centuries in response to evolving economic, technological, and geopolitical factors.

The rapid development of maritime transport in recent years has globally challenged the logistics and service capabilities of maritime ports. A key factor in this development has been the increase in size and the tonnage of ships, providing them with greater cargo and transport capacities, especially in the case of container ships.

This rapid expansion of container shipping has put enormous pressure on both port infrastructures and port operations worldwide. It is therefore appropriate to say that ports have been continuously adapting to accommodate increasingly larger ships, unprecedented cargo volumes, and complex logistics chains that requires an exceptional coordination and efficiency.

The evolution in navigation has not occurred in isolation, since it has also allowed port equipment to be revolutionized since the earliest port technologies. In over 2,000 years of history, new materials such as rubber and various metals have been developed, which together with the fast-technological advancement, have caused a change in port configurations. [22]

III. IMPORTANCE OF PORT COMMUNITIES

The modernity of ports is structured towards logistics, positively affecting their maritime and transportation infrastructure and their services in general. The global economy relies on ports as centers of distribution and value-added services. The expansion of port activities encompasses industry, commerce, and administration. The context of the new port is based on the third generation, where the ports function as port community. [23]

Currently, seaports allow the transportation of a massive volume of goods worldwide, playing a crucial role in international trade demand and developing competition among their various cargo terminals. [1]

Governments must ensure that the entire port community is able to participate in political processes of developing legal regimes that encourage commercial operations while avoiding responding to the interests of dominant groups. [24]

In the last two decades, Latin American and Caribbean countries have made significant efforts to automate port logistics. Some of the main initiatives were related to the development and implementation of the Single Windows of Foreign Trade (VUCE) as well as the Port Community Systems (PCS). [25] It appears to be essential to have a teamwork policy and a coordination among various port stakeholders in order to identify areas of improvement that will make daily port operations more efficient, ensuring smooth operations without setbacks, which will translate into cost reductions and logistics perfection. [7]

Starting from the definition that ports are the convergence point of all stakeholders in international trade, port communities are obliged to act collectively to resolve problems arising from the interaction between shipping companies, carriers, consignees, freight forwarders, customs brokers, shipping agents, banks, customs authorities and other actors. Otherwise, inefficiencies and higher costs will result. [24]

IV. MAJOR PORT COMMUNITIES ESTABLISHED IN THE REGION

COPOMA: The Port Community of Manzanillo, established on September 1, 2019, is an organization representing the companies and agencies involved in the operational activities of the Port of Manzanillo, Mexico. [26]

COMPORT: The Port Community of Callao, established on August 1, 2018, is a collective formed by private and public actors participating in the logistics chain of the Port of Callao, Peru. [27]

COMLOG: The Port Community of Talcahuano, established on October 20, 2016, is an entity that brings together various actors involved in the logistics activities of the Talcahuano commune in the Biobío region, Chile. [28]

Veracruz Port Community: An entity aiming to unify all port actors to strengthen the interest in the efficient movement of goods from origin to destination for the benefit of customers. Established on March 1, 2018, in Veracruz, Mexico. [29]

CLPC: The Port Logistics Community of Coquimbo, Chile, formally established on September 26, 2017, describes itself as "the gateway to a magical region where the sea, land, and sky mix to deliver their best attributes." [30]

COLSA: The Logistics Community of San Antonio, Chile, a coordination and management instance for all companies, institutions, and organizations involved in the San Antonio logistics chain. Created in September 2010 and registered as a non-profit legal entity in August 2013. [31]

COPA - Antofagasta Port: Established in 2010, the Port Community of Antofagasta, in Chile, is a non-profit organization that aims to bring together all actors in the logistics and maritime port sector to work with the community and connect the maritime world to citizens. [32]

Mazatlán Port Community: A Federal Government Entity with a concession title granted by the SCT to manage, promote, build, develop, and maintain the infrastructure of the Port of Mazatlan, Mexico. Established on October 15, 2021. [33]

Coatzacoalcos Port Community: A social communication platform between the port, society, and institutions to develop and strengthen the community and its members, aiming to enhance the port's development and competitiveness in harmony with the city and its surroundings. Established on November 7, 2019 in Port of Coatzacoalcos, Mexico. [34]

Arica Port Logistics Community: A community that works on common interests and establishes actions with authorities and representatives to address issues, initiatives, and concerns that contribute to the region's development. Established on June 26, 2019, in Chile. [35]

MEJIPORT: The Logistics and Port Community of Mejillones, Chile, a collaborative initiative between public and private actors to identify opportunities for improving port activity in the bay. Established on December 13, 2017. [36]

Puerto Montt Port Logistics Community: Established in July 2019, in Chile, this port community in the Los Lagos region aims to strengthen the regional logistics community by overcoming existing gaps and enhancing the port's competitiveness and area development. [37]

Chacabuco Port Logistics Community: A community providing efficient, competitive, timely, safe, and environmentally respectful port services at market prices, satisfying client needs, generating resources for the Chilean State, and being a relevant actor for the development of the Aysén region. Established in Chile on July 5, 2019. [38]

Punta Arenas Port Logistics Community: A community that seeks boosting the logistics-port system to position the southern zone as a service port with lower logistics costs. Formally established on November 30, 2018. [39]

Lázaro Cárdenas Port Community: An integrated logistics chain of the Port of Lázaro Cárdenas offering foreign trade solutions through the port's competitive advantages with reliable, efficient, and total quality service. The Lázaro Cárdenas Port Community was registered on April 25, 2016. [40]

Quetzal Port Community: Unlike other listed entities, it is the official website of Empresa Portuaria Quetzal (EPQ), the entity responsible for managing and operating the most important port in the Guatemalan Pacific. Established on June 15, 2021. [41]

V. CONCLUSIONS

Latin America's port communities are at a crucial stage of their development. Significant progress has been made in recent years, however, challenges still need to be addressed for the region's ports to reach their full potential. Collaboration between various public and private actors, investment in infrastructure and technology, personnel training, and the adoption of sustainable practices are key to making Latin America's port communities competitive, efficient, and environmentally responsible.

5.1 Major Advances

Growth in Cargo Movement: Latin American ports have experienced sustained growth in cargo movement over the past decades, solidifying themselves as key logistics platforms for international trade.

Modernization and Investments: Significant investments have been made in port infrastructure modernization, including the expansion of docks, the acquisition of new cranes, and the implementation of state-of-the-art technologies.

Regional Integration: Initiatives have been developed to strengthen regional integration among Latin American ports, aiming to enhance their competitiveness, effectiveness, and efficiency.

Development of Port Communities: Progress has been made in creating port communities, which group various public and private actors operating in ports, with the aim of promoting collaboration and sustainable development of port activities.

5.2 Challenges

However, these communities face several challenges, such as:

Global Competition: Latin American ports face strong global competition, making it necessary to continue investing in infrastructure and technology to maintain their competitiveness.

Land Logistics: The efficiency of ports is affected by the lack of development in land logistics in some countries, causing bottlenecks and increasing trade costs.

Environmental Sustainability: It is necessary to comprehensively address the environmental challenges associated with port activities, such as air and water pollution, waste generation, and climate change.

Training and Education: Strengthening the training and education of port personnel is required to adapt to new technologies and market demands.

Employment Formalization: There is a high percentage of informal employment in ports, resulting in precarious conditions for workers.

5.3 Opportunities

Among the areas of opportunity, we highlight:

Development of E-commerce: The growth of e-commerce represents an opportunity for Latin American ports to diversify their services and increase their revenues.

Implementation of Disruptive Technologies: The adoption of disruptive technologies, such as artificial intelligence, blockchain, and automation, can improve the efficiency and security of port operations.

Attraction of Investments: Latin American ports have great potential to attract foreign investments, contributing to their development and modernization.

Development of Auxiliary Maritime Industry: There is significant potential for developing the auxiliary maritime industry in Latin America, which can generate new employment opportunities and economic growth.

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