



# Chapter 11

## Systematic Literature Review of Maritime Clusters and Competitiveness

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### ABSTRACT

*The aim of this chapter is to provide a systematic literature review, using bibliometric methods, on the topics of Maritime Cluster and Competitiveness, complemented with the combination of innovation, networks, and co-petition. Data were collected from the web of science and quantitative and qualitative analyses were applied to understand the relevance of the topics, the years and countries of production and the types of articles published. It was possible to identify three approaches: one that relates the theme from a strategic management perspective, another that associates the theme with regional development policies, and the third associated with the development of networks. It was also found that although co-petition does not appear explicitly, it appears as a fundamental element for the promotion of maritime clusters of the simultaneous combination of competition and collaboration of different actors within the cluster and as a mobilizing element of innovation networks.*

### 1. INTRODUCTION

Although maritime clusters have existed for a long time and have a strong contribution to the development of regions and nations, only in recent decades have their importance been recognized in studies

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on the agglomeration effects (Li & Luo, 2021) of economic activities.

The importance and popularity of this theme among academics and politicians arise associated with the competitiveness policies of an economic sector (Doloreux, 2017), but also at regional and national level (Stavroulakis et al., 2020a), as a key strategic tool to support economic development and business. For Paramio et al. (2013) it emerges as a smart mechanism that allows monitoring the dynamics derived from the European and international agenda on sea affairs, particularly in the context of economic growth and the blue economy.

Effectively, governments recognize the important role that maritime clusters play, not only in promoting economic development, but also in supporting potential innovation and technological development (Doloreux, 2017). As in the case of other types of clusters, the relational and dynamic characteristics of maritime clusters promote knowledge and innovation creation and thus regional and national competitiveness (Koliouisis et al., 2018b). The effectiveness of a cluster is found in the network of trust between competitors that acts as a catalyst for knowledge and innovation creation (Stavroulakis et al., 2020b). For Li et al. (2021) the expansion of institutions' maritime science and/or maritime scientific research and the promotion of the maritime industry has a positive impact on efficient technological innovation with repercussions at the level of regions.

However, researchers contributing to cluster research have mainly focused on describing the actors and institutions relevant to maritime clusters, analyzing the potential benefits of clustering for maritime industrial and innovation activities, and investigating policy practices related to maritime clusters (Doloreux, 2017). Or they have sought to identify the main characteristics and critical success factors that can inform the proposal of a differentiation framework for maritime clusters (Monteiro et al., 2013). Shi et al. (2020), for example, explore the development trends of traditional maritime clusters originating in ports from two perspectives: the development of a cluster and its development path.

This study is part of a broader analysis to explore the most relevant issues associated with the Sea cluster in Portugal to see whether it foreshadows and presents a structure for functioning as a cluster, and to understand whether it satisfies the conditions and functions as a cluster.

Thus, to understand the maritime cluster and its combination with competitiveness, as well as with innovation, network relations and co-opetition, the bibliometric analysis method was chosen. This analysis is intended to contribute to the study of the topic, in particular to the study of the fields of networks, co-opetition and innovation in a context of maritime cluster competitiveness, and seeks to highlight the importance of these concepts and the benefits that can result from the combination of the four concepts in the promotion of the maritime cluster.

In terms of data collection and analysis, data were collected from the Web of Science, a very complete and reliable research database. After presenting the methodology used, the results achieved and the development prospects will be presented.

## **2. METHODOLOGY**

In this study, a systematic literature review is conducted using bibliometric methods. According to Carver et al. (2013), a systematic literature review can be used to establish the foundations of new research or to summarize what is currently known or unknown about a topic. Bibliometric analysis is a review method used to draw the structure and development of certain research areas and to assess their evolution

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