



Strategy, policy, and the formulation of maritime cluster typologies



Ioannis G. Koliouisis^a, Stratos Papadimitriou^a, Elena Riza^b, Peter J. Stavroulakis^{a,*},
Vangelis Tsioumas^c

^a Department of Maritime Studies, University of Piraeus, Piraeus, Greece

^b Department of Hygiene, Epidemiology, and Medical Statistics, University of Athens Medical School, Athens, Greece

^c The American College of Greece - DERE, Athens, Greece

ARTICLE INFO

Keywords:

Strategic management
Cluster policy
Strategic policy
Maritime cluster
Cluster typology
Framework

ABSTRACT

In recent years, clusters of industry have attracted multilateral attention, from academia and practice, alike. Clusters of industry relate to harbouring regional competitiveness; as such, they have come to be considered as important constructs for strategy and policy, that can be deemed as complementary domains. At the same time, maritime clusters are regarded as dynamic cases from a multitude of viewpoints. The concepts of strategic policy, particularly as they pertain to maritime clusters, require deeper understanding and more thorough analysis. In this context, cluster typologies surface as a useful instrument that can offer valuable insight. While this field instils the eventuality of facilitating policy and strategy within clusters, it remains relatively barren. This instance may present the opportunity to better elaborate on the formulation of models and frameworks that address the intricacies within maritime clusters. The research conducted introduces a three-tier framework for the generation of maritime cluster typologies, that bears the potential to enrich strategic management and its eventual policy implications, towards a more streamlined and informed manifestation.

1. Introduction

Industrial clusters have been on the spotlight due to their capacity to improve regional competitiveness, especially in a turmoiled economy. Cluster theory is being currently revisited to attract business, improve competitiveness, and increase the gross regional product. Even more so, maritime clusters are regarded not only as dynamic groups, but are witnessed to attract a broad range of entities and undertakings, not exclusively active in the maritime domain. Maritime clusters are distinctly important, since wherever the maritime industry homes, the locality therein seems to prosper, as the sea provides a wealth of lateral implications for the industry and region. These types of clusters stand out, both as cases of industrial cluster theory, and as cornerstones of regional competitiveness. All the interesting, romantic, and eccentric dynamics of the maritime industry seem to transcend to these clusters, as well. At the same time, from a purely fiscal sense, the industry, though relatively low in financial returns and not that attractive for inexperienced investors, has provided the context for some of the most legendary success stories in business.

The peculiarities and distinctions of maritime clusters have been acknowledged from academia, managerial practice, and policymaking entities, in a converging attempt to foster their healthy materialization, and better develop, organize, and understand them. For these reasons,

maritime clusters have been selected as the analytical case for this work. Maritime clusters pertain to dynamic cases that may function as the base for many interesting topics of strategy and policy, for decades to come. One of the reasons enabling this manifestation, may be that the formulation of instruments for the facilitation of strategic management and policy formulation within industrial clusters is a significant field, that remains relatively barren, nonetheless. As the domain has portrayed significant momentum from a variety of viewpoints, it would not be unfounded to expect that industry and academia will tap into this noteworthy sector and relinquish frameworks and models that will assist towards an increasingly stepwise appreciation of these clusters of industry.

The present work aims to contribute within the above domain, through the development of a novel application for strategic policy of maritime clusters. The instrument is founded with the selection of two categorical variables that pertain to a dichotomy of states. Through this dichotomy, a ranking of each categorical variable is performed, to extract a basic contingency table. The subsequent manipulation of the categorical variables will give way towards quantitative methodologies, including statistical treatment, and the calculation of measures of association. By extracting the relative positions of the variables through specific measures of association, clear definitions as to the case at hand can be drafted. In a succeeding step, each measure of association may

* Corresponding author.

E-mail address: pjstav@unipi.gr (P.J. Stavroulakis).

be assigned to different classes, and depending on the class wherein the calculation resides, relevant typologies will be extracted. These typologies may provide insight as to the intricacies of maritime clusters, and enhance strategic management, policy, and governance.

This paper contributes to the understanding of the cluster classification typologies that facilitate policy and strategy initiatives and frameworks. It does so, through developing a three-tier framework for the formulation of maritime cluster typologies that streamlines the classification of cluster attributes. More precisely, the methodological framework based on this classification of categorical dichotomous variables will initiate statistical hypothesis testing, for the investigation of causality between the variables, and the subsequent formulation of typologies, through the calculation of measures of association. Compared to other studies, this research innovates in terms of introducing a robust framework for the extraction of cluster typologies, that improves the effectiveness of strategic management and business / cluster policies; this, for variables selected ad hoc, insofar conquering a profound level of versatility for the instrument. Therefore, the framework developed not so much challenges previous research, as it rather complements its formulated body of knowledge.

2. Literature review

2.1. Overview

The agglomeration of economic activity within a region, prevalently coined as an industrial cluster, can be described as an intricate network of firms, within a discretely defined industry. What may set an industrial cluster apart from any other industrial composition, is that the network of firms within the cluster, shares a culture of trust [9] and a common vision [54]; these traits facilitate efficient cooperation and mutually benefiting competition. In addition, the outcome of a cluster's manifestation translates into knowledge creation and constructive innovation [3]. Through this mechanism, entities with conflicting stakes are seen to co-exist within a locality, wherein, in other terms, their dynamics would mainly exhibit themselves through zero-sum tactics.

Clusters can establish themselves around a core-activity of a variety of industries; though, there are some cluster types that stand out, such as technology, entertainment, and cultural clusters, among others. Due to the extended and dynamic nature of the maritime industry and the fact that maritime industries exhibit many cluster traits, they can be considered as the cornerstones of regional (and/or national) competitiveness, for the localities wherein they reside. In addition, maritime clusters provide a fertile spawning ground for many scientific domains, wherein theories may be tested and models along with frameworks may be formulated and assessed. Outstanding examples of these domains, are strategic management and policy, as they seem to share many fraternal characteristics [29,42,50,8]. Policy making entities have provided distinct effort and support in the crystallization of both generic and specific maritime clusters [10,13,45,59].

From the widely-accepted instigation of industrial cluster theory, with Alfred Marshall's [39] economies of agglomeration, to its modern germination (that many times revolves around Michael Porter's [49] contributions), a situation in twain can be observed. On the one hand, the theory has firmly grasped that clusters of industry can be deemed as very important locational constructs, for they may hold the key of a definitive competitive advantage [18]. On the other hand, clusters of industry are riddled with paradox; this cluster characteristic renders their eventual deconstruction, at times, elusive. This situation arrives to the point that any generalization with respect to clusters may hold its own caveats and be, ultimately, erroneous. Cluster paradox, can be witnessed within Porter's 'location paradox,' all the way back to Marshall's work and his cryptic notion, regarding the beneficial attributes that are passed on within clusters among generations, as if they are 'in the air.'

Within this context, the disciplines of strategic management and

policy find very resonating applications. With respect to the management of strategy within clusters, a unifying extract would be that corporate growth strategies shoot for the stars; and get there; since growth is a predominant feature within clusters of industry. Within a business strategy context, differentiation strategy seems to guide operations. The cluster steers firms towards competitive dynamics that blossom into innovation, which in turn creates new needs, ideas, and markets. At the same time, a cluster cannot move to present these advantages, without the facilitation of policy and governance [11,55]. As one could conclude that the importance of strategic management and policy within a cluster cannot be overstated, at the same time, strategy and policy seem to morph into a complementary concept. The latter could be coined as strategic policy (herein, strategic policy refers to the complementary nature of strategic management, policy, and governance; thus, it pertains to a unifying construct).

If the objective was to contribute to the field of strategic policy for industry clusters through model and framework development, a cluster type could be selected, as a baseline. This selection would facilitate the process of needs' assessment through a narrower and more streamlined scope, thereby assisting the specialization and targeting of the instruments formulated. At the same time, lest extremely differentiated cases, nothing would restrict the constructs from being applicable to generic clusters, as well. Herein, the maritime domain provided the instigation for the extraction of the framework introduced, though the latter could find pertinent applications within other clusters.

As already hinted to, the domain of analytical models and frameworks for generic industrial clusters, and maritime clusters specifically, remains to be harvested. The framework within, provides a contribution to the domain of strategic policy for maritime clusters, as it provides a floor-to-ceiling integrated and versatile construct. Its integration can manifest from a multilateral potential of applicability, as its impact on scholarly knowledge, as well as managerial practice, can prove significant. The framework can pertain to a stepping stone for theoretical and empirical practice, as it can provide a reference point to test and assess theories. The latter may benefit from its array of straightforward, yet evidence-based methodologies. At the same time, the framework is structured upon the ad hoc selection of the variables within. Therefore, the case requirements will formulate the instrument, not the other way around; this fact provides a versatility to the construct that may be the reason for its eventual effectiveness. Strategy and policy are both domains that are structurally fluent; they require high levels of adaptability and responsiveness, as their reason of existence is the perpetual change that is embedded in nearly all of nature's systems. For this reason, versatile instruments can provide definitive contributions to topics of strategic policy, from an academic and a managerial perspective. The work relinquished aspires to contribute in this direction, and as such, its importance, impact, and potential may be assessed.

2.2. Strategic policy and industrial cluster typologies' review

Industrial clusters hold a distinct effect upon the firms within, and provide dynamic cases that can facilitate the extraction and documentation of strategic decisions [24]. These decisions can surface from the domain of strategic management, for an industrial cluster, with diverse and novel instruments [32]. Strategic management has found an important ally with respect to clustering within an industry [36], though its effects spill-over many other disciplines and aspects, such as knowledge management [34] and policy [7]. As innovation is a direct corollary of a healthy industrial cluster, specific strategies that instigate different types of innovation may be investigated [31]. Through these methodologies, a synergy may be achieved between strategic management applications and the cluster case, to explore many other instances of the cluster's innovative aspects, as well.

The spatial configuration of industries can be reviewed effectively with the extraction of typologies [33], since the latter facilitate the

Download English Version:

<https://daneshyari.com/en/article/5118120>

Download Persian Version:

<https://daneshyari.com/article/5118120>

[Daneshyari.com](https://daneshyari.com)