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Economic Governance in Maritime Affairs

Abstract

The paper presents results of the research focused on analysing potential and institutional examples of the application of economic governance in maritime affairs. We performed literature review of the wider field of economic governance and the narrower field of economic governance in maritime affairs for two separate time periods, 1955-2023 and 2009-2023. Based on the presented literature analysis, multiple complementary research perspectives had been identified that can be aggregated into four main research perspectives on economic governance in maritime affairs: socio-ecological, environmental, international and regional. To provide the theoretical foundations for applying economic governance to maritime affairs, the conceptual features, scope, and role of the economic governance approach have been analysed. The institutional perspective on economic governance and its potential for application to maritime affairs has been examined. The analyse of the interconnections of the theoretical background with the institutional framework has been performed on the level of European Public Policies in maritime affairs. The analysis established the foundational assumptions necessary for the practical implementation of economic governance approaches within the field of maritime affairs. European concept of sustainable governance of the blue economy has been analysed together with the Blue Growth concept in consistency with the institutional framework of maritime economic governance, focusing on comprehensive and interrelated economic governance approaches while utilising four aggregated research viewpoints on economic governance in marine affairs.

Keywords: economic governance, maritime affairs, institutions, sustainability, marine, resources

1. Introduction

Economic governance defined by Dixit [9] is a process of supporting economic activity and economic transactions by providing appropriate physical and organizational infrastructure through the processes of protection of property rights, contracts enforcement, and collective actions that are all carried out within (formal as well as informal) institutions. Performance of different institutions under different conditions,

as well as the evolution of these institutions, and the transitions from one set of institutions to another is in the core focus of interest of economic governance.

A wide range of theoretical and empirical research dedicated to common-pool resources [1], [2], [3], [15], [16], [17], [27], [30], [35], [40], [41], [42] has been aligned with economic governance approach dealing with the question of appropriateness of the governing approach in which public sector has exclusive authority to govern the commons in the effort to avoid their "tragedy" [18].

Various economies across different historical periods have utilized distinct institutions with varying degrees of success to fulfil their economic roles [9]. The field of economic governance is engaged in a comparative analysis of these diverse institutions, employing both theoretical and empirical approaches, examining the performance of different institutions under various circumstances and conditions. This research emphasizes the interrelationship between institutions and their evolution over time, exploring how transitions between institutions have occurred within the context of specific economic activities and changing institutional requirements.

For a considerable time, economists have largely overlooked public governance, possibly due to the assumption that governments (public authorities) would adequately establish and enforce it [9]. However, as noted by Dixit [9], the experiences of less developed and developing countries, along with insights from economic history research, have underscored the necessity for economists to investigate formal as well as informal, public as well as private, governmental as well as non-governmental, institutions involved in economic governance.

The development of economic governance approach has been evident for a long time but different economic pressures and influences in last decades on a global scale, as well as permanently growing pressure on commons, even further highlights the importance to look for new opportunities for application of economic governance. This is especially important in the multidisciplinary maritime affairs that are strongly cross-linked with numerous international, reginal as well as local influences and governing aspects that comprehensively need to be taken into account in the effort to strengthen sustainable development of resources, organisations and processes in maritime affairs. This paper presents results of our research focused on the possibilities of application of economic governance approach to maritime affairs.

2. Literature Review

This part generally follows the multidisciplinary approach used by Vukelić et all. [39] to thoroughly address the comprehensive multidisciplinary picture of maritime affairs.

The acquisition of material was conducted from April to June 2024, employing the following specific approaches in the acquisition process:

- Time Span: All articles available in the Web of Science (WoS) databases and published up to 2023 were considered.

- Sources: The review focused on peer-reviewed articles from accessible journals.
- Keywords: The keywords utilised for searching relevant literature included "economic governance", "maritime", "marine", "coastal", "ship", "shipping", "port", "sea", "ocean", "fish", "fishing", "fisheries", "mediterranean", "coral reefs".
- Combining and Narrowing: The search was refined by combining keywords, applying time differentiation, using truncation symbols (keyword root and asterisk), and employing Boolean operators to filter titles, keywords, and abstracts.
- Databases: The primary database used for search of scientific papers was the Web of Science Core Collection, while Google Trends was used to collect search intensity data.
- Reporting: The selected references were analysed using VOSviewer software and graphical representations from Web of Science (WoS).

The descriptive analysis of scientific papers was performed for two separate periods, with only the general term "economic governance" being used in the first period, and then in the second period combined with the terms relevant for the area of maritime affairs:

- Period 1. From 1955 (in 1993 first relevant papers had been detected) up to 2023 using only the general term "economic governance" in order to get a wider perspective about the scientific area of economic governance.
- Period 2. From 2009 up to 2023 utilising previously mentioned general term "economic governance" in combination with the keywords "maritime", "marine", "coastal", "ship", "shipping", "port", "sea", "ocean", "fish", "fishing", "fisheries", "mediterranean", "coral reefs" in order to collect relevant data about applications of economic governance in maritime affairs.

In addition, for the period 2 timeframe (01/2009 - 12/2023), the analysis of web search intensity on Google of the term "economic governance" has been performed on the worldwide level on monthly bases in order to illustrate wider search interest and frequency.

The analysis of the scientific papers within the first period revealed that a total of 1,594 journal articles were detected. There is an evident lack of articles before early 1990s with some of them starting to emerge from 1993 onwards.

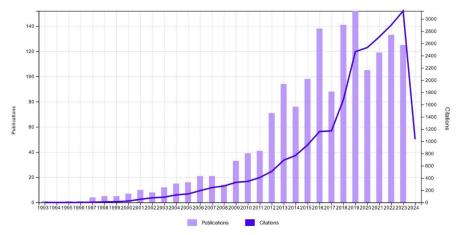


Figure 1. Time distribution of publications and citations for articles acquired through WoS for wide scientific area of "economic governance"

Source: Authors using WoS graphical representation services

The majority of publications were in political sciences as well as in economics, with around one third of the papers being published in each of those two scientific fields, then followed by the field of international relations and the law field. Subject areas are significant because they reveal the typical profile of scientists working on specific issues and can assist them in locating profiles that support their research field.

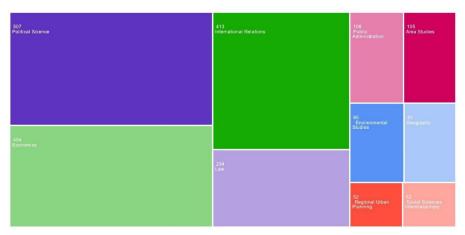


Figure 2. Distribution of subject areas for articles acquired through WoS for wide scientific area of economic governance

Source: Authors using WoS graphical representation services

The 2009 has been detected as an important year in the analysed period demonstrating significant increase (more than 100% increase compared to the previous year) in the number of published articles in the wider scientific area of economic governance. This was expected following the analysis of the theoretical background as well as the analysis of the wider social context, primarily due to the Nobel Prize [38] in Economic Sciences being awarded in 2009 to E. Ostrom (shared with O. E. Williamson) for her "analysis of economic governance, especially the commons".

Following this evidence, the second analytical time frame (2009-onwards) was selected and also narrowing the scope with a focus on maritime affairs in order to perform thorough analysis of economic governance in the context of maritime affairs.

In the period 2009-2023, there was 1453 papers in total addressing the economic governance, and 33 papers addressing the economic governance in maritime affairs. We analysed titles, abstracts and keywords of articles acquired through the WoS, focusing on the first quintile of the keywords according to the number of their occurrences. The results are presented on the following figures.

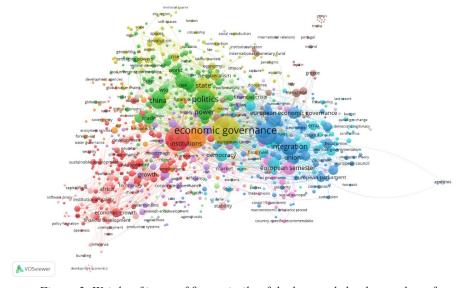


Figure 3. Weight of items of first quintile of the keywords by the number of occurrences for wide scientific area of economic governance (2009-2023)

Source: Authors

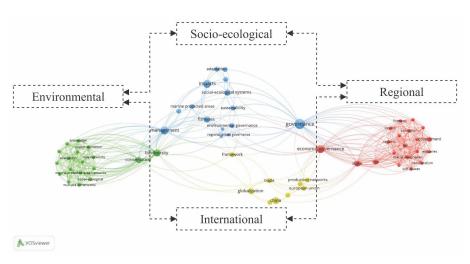


Figure 4. Weight of items of first quintile of the keywords by the number of occurrences for economic governance in maritime affairs with focus areas (2009-2023)

Source: Authors

The analysis revealed multiple complementary research perspectives with aggregated four main research perspectives on economic governance in maritime affairs (Fig. 4):

- Socio-ecological,
- Environmental,
- International,
- Regional.

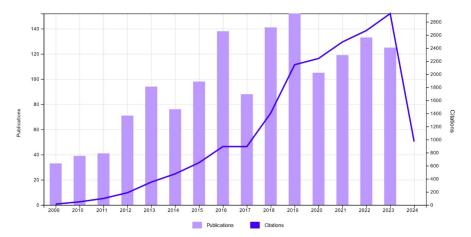


Figure 5 Publication and citation time distribution for articles acquired through WoS for wide scientific area of economic governance (2009-2023)

Source: Authors using WoS graphical representation services

In the period 2009-2023, significant growth of published articles as well as number of citations has been detected in the wide area of economic governance, demonstrating significant rise of scientific interest for this field as well as further research potential. Given the diverse reality and intrinsic complexity of maritime affairs, where multidisciplinarity plays an important role in addressing socio-economic and ecological issues, this growth of interest for economic governance is particularly important sign of emerging potential for further growth of research and practices focused on economic governance in maritime affairs.

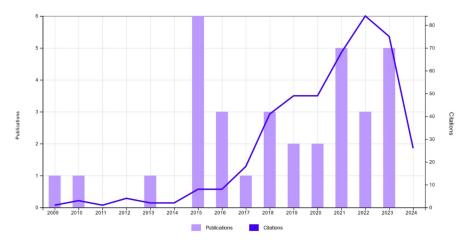


Figure 6 Publication and citation time distribution for articles acquired through WoS for narrower field of economic governance in maritime affairs (2009-2023)

Source: Authors using WoS graphical representation services

On the Figure 6 it can be noted that up to 2018 there has been a moderate growth of the number of citations in papers addressing economic governance in maritime affairts, but after 2018 the number of citations started to grow more intensively. Nevertheless, it has to be emphasized that there have been only 33 papers detected in the period 2009-2023 focused on applying economic governance approach to maritime affairs, which also demonstrates a substantial number of areas for research yet to be scientifically addressed in the framework of economic governance in maritime affairs.

The majority of papers were published in environmental sciences and studies, then followed by the field of international relations and economics (Fig. 7.).



Figure 7 Distribution of subject areas for articles acquired through WoS for narrower field of economic governance in maritime affairs (2009-2023)

Source: Authors using WoS graphical representation services

During the material review process, the chosen articles were quickly skimmed through in order to check for any potential contradictions in their summaries and conclusions. The analysis revealed the weight of items as shown on the following figures.

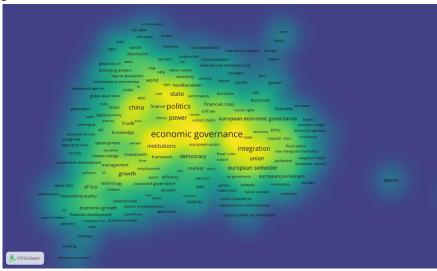


Figure 8 Weight of items based on the analysis of titles, abstracts and keywords for wide scientific area of economic governance (2009-2023)

Source: Authors

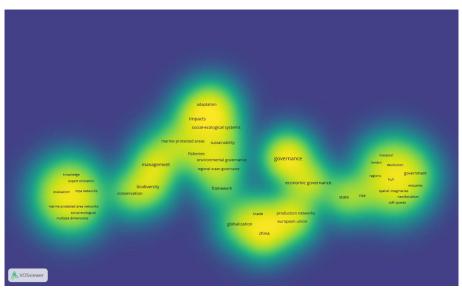


Figure 8 Weight of items based on the analysis of titles, abstracts and keywords for narrower field of economic governance in maritime affairs (2009-2023)

Source: Authors

In order to shade an additional light on economic governance from the wider social perspective, we collected and analysed the worldwide search data on the term "economic governance" from Google using their service Google Trends for the same respective period from 2009 to 2003 (Fig. 9).

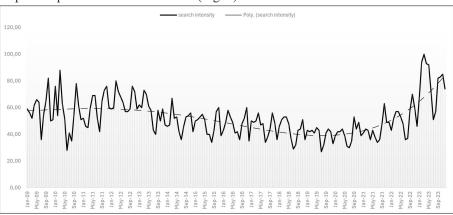


Figure 9 Search intensity of the term "economic governance" on Google with 4th degree polynomial trendline (2009-2023)

Source: Authors based on data from Google Trends (Accessed: 14.05.2024)

The search intensity demonstrates continuation of the search interest throughout the analysed period with slight increase during the 2023.

3. Conceptual Features, Scope and Role of Economic Governance

The economic governance approach is in a close and inextricable link with institutions, and theoretical considerations laid on the previously embodied theory of institutions. In the background of economic governance there is often some type of rationalisation and optimisation process that has a two-way impact: one on the development of new institutions and other on the empowerment and improvement of the work of existing institutions and their consequent operation and impact on economic performance. It therefore important to understanding the nature of such and similar institutions in the light of the inherent economic problems they are dealing with, depending on the economic preconditions and the effects they generate.

After the 1970s, the use of the term "governance" in the economics was marked by a steep growth, and before that time it was almost unused, on the margins of the economy. The term governance (Dixit, 2008) can be interpreted in multiple interconnected ways: as an activity or management mode controlling and coordinating systematic order, or as the function of authority, or as an approach and principle of managing something connected with the system of regulation in a discipline and/or business. This diversity and the breadth of the concept of governance (Dixit, 2008) brings necessity for further elaborations on the idea and theoretical paradigm of economic governance. The very different meanings of the term governance allow the word to be used in almost every context of economic decision-making or policy. However, the term economic governance has an already scientifically mature meaning in the context of modern economics. Williamson [42] considers that economic governance is, in essence, "research on good order and effective (feasible) solutions", which includes institutions and organisations that support economic transactions by supporting and protecting copyright, strengthening the enforcement of agreements, and carrying out collective action to create the infrastructure of rules, regulation and information necessary to provide sustainable and effective interactions between different economic actors, individual or corporate.

Looking from the theoretical as well as practical explanation of the concept of economic governance, it is possible to take a concise and careful look at the question of institutions and their role in economic processes. When looking from the collective decision-making perspective, it is important to consider institutions as sets of rules that influence human interactions in a certain way in a certain social context. The main purpose of the many established institutions is to facilitate production and exchange, and one aspect of economic governance deals with the effects of such institutions. Some examples of institutions, in line with the institutional theory, which affect human prosperity by enabling production and exchange, mainly highlight laws, business organisations and political rules.

According to Dixit [9], economic governance consists of processes that support economic activity and economic transactions through the protection of property rights, the implementation of contracts, and the collective action in order to implement appropriate physical and organisational infrastructure. These processes are carried out through the institutions, both formal and informal. The area of economic governance examines and compares the performance of different institutions and/or institution sets under different conditions, their evolution, as well as the change (transition) from one set of institutions to the other.

Formal and informal institutions are created and evolved to support economic activity and exchange while protecting property rights and the implementation of contracts, as well as collectively generating organisational and physical infrastructure. The field of economic governance conducts its study and reconciliation of institutions in several ways: State political-legal institutions; Private compulsory relationships within the framework of laws (contracting, arbitration); Profit-making governance (credit rating agencies); Social networks and norms [9].

Different economies in different time periods were using different institutions with very different successes to perform their economic functions [9]. The area of economic governance is comparatively researching and studying these diverse institutions, from the theoretical as well as empirical research perspective, i.e. case studies on the performance of different institutions under different circumstances and conditions. In this regard, the interrelationship between institutions and their evolution over time is in the research focus, and whether and how the transition from one to another has emerged in the context of the nature any type of economic activities as well as changes in institutional requirements.

Public governance has been neglected by economists for a long time, possibly because they expected governments (public authorities) to successfully establish and enforce it [9]. However, according to Dixit [9], the experiences of less developed economies and developing countries, as well as the observations resulting from research on economic history, have led to the need for economists to study non-governmental institutions of public governance.

Economic governance is not an area for itself, but a concept that organises and covers many areas, including institutions and organisational behaviour, economic development and growth, industrial organisation, law and economics, political economy, comparative economic systems, as well as their various sub-areas [9].

With a view to a deeper understanding of economic governance and its objectives, institutions can be classified into three different dimensions [9]:

- The first dimension covers the purpose of the institutions, namely the protection of property rights, the implementation of voluntary contracts between individuals, and the provision of physical and regulatory infrastructure to stimulate economic activity;
- The second dimension covers the nature of the institutions and concerns formal state institutions that legislate and enforce laws, including legislate,

police, judiciary and regulatory agencies, private regulation institutions operating under the aegis of the law, private for-profit institutions providing information and enforcement, and self-enforceable institutions, which are relatively common among social groups and networks;

- The third dimension distinguishes institutions that are created and developed organically from those created for a specific purpose.

This classification provides a lever for better economic governance perspective on institutions, i.e. to understand the role of institutions in the area of economic governance issues.

4. Institutional Perspective on Economic Governance and Potential for Application in Maritime Affairs

When considering the institutions primarily from the point of view of economic governance, it is important to highlight one of the groups of institutions (classes) consisting of legal standards which serve to implement mechanisms that protect property rights and enable them to trade in those assets, namely the operating rules on the market, that is to say, market standards that enable the market to function. Similarly, the second class group of institutions supports production and exchange outside the market, enabling and strengthening the functioning and development of the public sector. As some of the transactions take place through the market, at the same time a significant number of transactions take place within the companies themselves, outside the market. At the same time, from a public sector perspective of activities, governments often play a significant role in the creation and provision of some types of goods, while other mechanisms play a dominant role in other types of goods. The theoretical key issue here is what form of governance best agrees to which form of transaction and to what extent the governance arrangements explored can be explained by their relative efficiency.

According to North [25], which based its observations on the work of Schofield [37], the key theoretical problem when it comes to the issue of cooperation, is the way in which individuals obtain knowledge and information about the preferences of other individuals and the expected reactions. Moreover, the issue arises in both perspectives, since every individual must not only have information about the preferences of other individuals, but also know that other individuals are aware of their personal preferences and strategies. Social norms are perfectly understandable and form the basis of well-known facts, knowledge available to everyone, and such knowledge can be maintained by mechanisms designed to make actions understandable. However, in much more general circumstances, individuals may not be in a position to rationally assess the beliefs and motives of other individuals [25]. The theoretical problems that are critical to the issue of cooperation can be summarised in a sort of question what is the minimum

amount of knowledge of the other participants' beliefs, wishes and objectives that a participant must have in a particular situation in order to be in a position to create a coherent understanding of their behaviour, and to be able to communicate that knowledge through communication to others. According to Schofield [37], this problem is the core and most important part of any community, convention and cooperative analysis.

Contemporary research findings [8] confirm that, in almost all economic transactions, excluding the exchange of goods and services directly at the point of exchange, one or more of the parties to the transaction have the possibility of cheating with the aim of obtaining their own gain at the expense of other entities. As a consequence of the expectation that they will suffer a loss from such cheating, it is possible that all future co-participants in the same or similar situation produce a reluctance to enter into such transactions, which would benefit all economically, in case that cheating can be prevented. As a result, almost all economic transactions are to be governed [8].

Much of the classical economic theory assumes that the official legal system provides such a service. Such a presumption is based on the view that the legal framework operates perfectly efficiently and at the same time without costs. Modern theoretical knowledge has carefully and accurately specified the information and other contractual verification requirements with a view to their enforceability [8]. Internal agency issues have also been identified in this domain where the focus of interest is geared towards the operationalisation of such a system. Most often, the state legal system is assumed to operate in an objective and impartial manner, more specifically, a monopoly on the use of force is assumed and, at the same time, a targeted focus on maximising social well-being.

Nevertheless, in practice, such an objective state legal system is rare and, if at all, it can only be conditionally approximated in highly advanced countries. Almost everywhere there are some evident cases of professional suboptimal activity, various forms of corruption or excessive slowness in action in formal government, undermining efficiency and effectiveness. However, despite these scientifically detected shortcomings of the public authorities, there is no doubt that economic life has continued, and companies have also developed alternative governance modes. Even when the legal system is generally efficient, there is a coexistence of alternative forms of governance, such as arbitration in cases of disputes over trade union matters, or many similar cases of different forms of collective consequential decision-making [8].

Understanding the operationalisation, functioning and flow of such alternative modes of governance is of great importance in itself, especially in the context of economic science [8]. Such familiarisation can lead to a better understanding of the functioning of the official authority in its interrelation with economic phenomena, and such an approach opens up opportunities for deeper analysis and systematisation of the results of research on the interplay between different governance modalities, especially in the area of public goods and common-pool resources (CPR). The key question is

whether alternative governance modes can have an equally good impact, or even better, than governance exclusively by central government. It is important to note that numerous studies [28] have demonstrated that communities can be as efficient, or under certain conditions, more efficient than public authorities. The debate on the effectiveness and efficiency of institutions should encompass a broader range of property regimes beyond solely joint ownership [28]. A deeper analysis raises the need for even more complex and rigorously tested scientific knowledge on the question of whether the different governance mechanisms for complex economic goods are real substitutes and mutually exclusive, or whether they may be in a complementary relationship of coexistence with their dominant positive features, while minimising their restrictions. The institutional base in this dilemma has a prominent place and its role needs to tested on a case-by-case basis within the scope of economic governance.

5. Application of Economic Governance to Maritime Affairs in the Context of European Public Policies

To comprehensively address the research focus, it is essential to analyse the interconnections of the theoretical background with the institutional framework. This analysis establishes the underlying assumptions for the practical implementation of economic governance approaches in the field of maritime affairs. The global financial crisis of 2007-2008 has unequivocally demonstrated the imperative to fortify economic governance across contemporary economic systems, for the comprehensive scope of economic governance as well as the practical importance of the institutional base in modern economic flows. The provision of concrete, practical examples of the application of economic governance principles is essential. In the context of EU public policies over recent decades, one of the important requirements of economic governance itself has highlighted the need for better coordination of public policies, with a particular emphasis on improving the system of monitoring the adoption and implementation of these policies in economic practice [10]. These intents incorporate the strategic elements of a strengthened approach to economic governance. However, such strategic definition and initiatives need to be translated into concrete legislative determinants and economic policy instruments, so that positive effects can be expected in concrete economic practices.

The global financial crisis highlighted the strong need for more efficient and intensive coordination and enhanced economic policy surveillance in the European Economic and Monetary Union [11]. The existing coordination and supervisory tools and methods have enabled existing public institutions of the European Union to overcome crisis barriers that no Member State could achieve on its own at the same level of performance. The reaction of the European institutions and the Member States has been swift and joint efforts were performed to overcome strong crisis impacts [12].

However, it should be pointed out that crisis experiences have also revealed significant existing gaps and shortcomings in the current system of coordination and

surveillance procedures embedded in the governance and economic decision-making system through public authority mechanisms affecting all governing processes. In the context of modern public political decision-making through the institutional complexes of the EU, it is consensually widely accepted that the framework for the governance and economic decision-making systems of the European Economic and Monetary Union needs to be strengthened in the immediate term, so that the soundness of macroeconomic stability and the sustainability of public finances, which are prerequisites for the durability of production and employment growth, is based on the solid foundations of collective decision-making mechanisms in the sphere of all types of goods [11].

The impact of the financial crisis has fundamentally changed the economic and financial conditions prevailing until 2007, and it has become evident that the positive aspects of public action accumulated during the economic growth phase are not always sufficient to overcome the turbulent economic conditions in times of crisis. Immediately after the crisis, in 2010 it was recognised that significant consolidation is going to be needed in most Member States to bring public debt back to a degressive course [12]. Multiple instruments for fiscal policy coordination and surveillance were proposed as a set of measures together forming part of a broad reform of economic governance as one of the key elements in the Europe 2020 strategy of the time [12].

Subsequent to these initiatives, the EU continued to invest efforts into the formulation of Blue Growth opportunities for marine and maritime sustainable growth in 2012 [13]. This strategic document laid the groundwork for the sustainable growth of interdependent individual sectors within the blue economy, delineating specific focus areas to bolster and stimulate their sustainable development. In 2021, the European Commission further advanced these efforts by publishing the "New Approach for a Sustainable Blue Economy in the EU," which concentrates on "Transforming the EU's Blue Economy for a Sustainable Future" and is aligned with the European Green Deal that constitutes a comprehensive set of policy initiatives designed to guide the EU towards a sustainable green transition, ultimately targeting climate neutrality by 2050 fostering further transformation of the EU into a socially more equitable and economically prosperous society, characterised by a modern and globally competitive economy [14]. Such economic governance approach strengthens transition from blue growth to a comprehensive sustainable blue economy.

In the following figure we present the sustainable governance of blue economy and Blue Growth focus areas in relation with identified research perspectives on economic governance in maritime affairs.

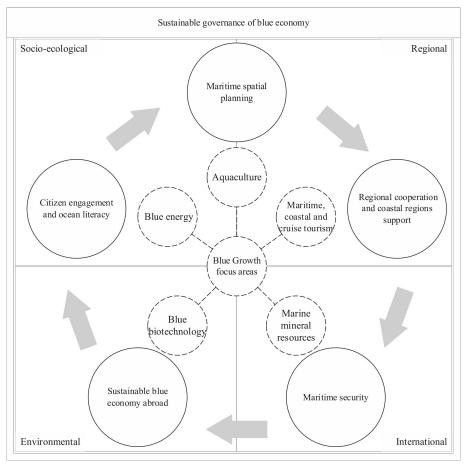


Figure 10 Sustainable governance of blue economy and Blue Growth focus areas in relation with research perspectives on economic governance in maritime affairs Source: Authors based on European Commission (2012, 2021).

Sustainable governance of blue economy approach is based on the five main pillars: maritime spatial planning, regional cooperation and coastal regions support, maritime security, sustainable blue economy abroad and citizen engagements and ocean literacy. It is interconnected with the five main focus areas of the Blue Growth approach: aquaculture, maritime, coastal, and cruise tourism, marine mineral resources, blue technology and blue energy. Both of these approaches are in line with the institutional perspective of economic governance in maritime affairs. Four aggregated research perspectives on economic governance in maritime affairs focused on socio-ecological,

environmental, international and regional standpoints are pervading both of these two approaches to economic governance.

6. Conclusion

The paper presents research findings on the development of the economic governance approach and potential for its application in maritime affairs. Diverse economic pressures and influences over recent decades on a global scale, coupled with the increasing strain on common resources, underscore the critical need to explore new opportunities for applying economic governance. This necessity is particularly pronounced in the multidisciplinary domain of maritime affairs, which is linked with numerous international, regional, and local influences and governance aspects. These factors must be comprehensively considered to enhance the sustainable development of resources, organizations, and processes in maritime contexts.

Literature review on WoS in the first time period (1955-2023) showed that after 2009 the wider field of economic governance showed significant increase in the growth rate of the number of publications and citations. This was a basis for creation of wider and deeper literature analysis for the second time period (2009-2023) performed by combining previously mentioned wider search with additional search elements such as "maritime", "marine", "coastal", "ship", "shipping", "port", "sea", "ocean", "fish", "fishing", "fisheries", "mediterranean", "coral reefs". There were 1453 papers in total addressing the economic governance, and 33 journal articles addressing economic governance in relation to maritime affairs, expressing necessity for this and similar further research.

Based on the presented literature analysis, there are multiple complementary research perspectives that can be aggregated into four main research perspectives on economic governance in maritime affairs: socio-ecological, environmental, international and regional. In addition, web search intensity analysis reveals that the social interest for "economic governance" has been continuous over the past 15 years with an evident increase in 2023.

In order to provide theoretical foundations for the application of economic governance into maritime affairs the conceptual features, scope and role of economic governance approach has been analysed, as well as institutional perspective on economic governance and potential for its application to maritime affairs

To comprehensively finalise the research, the analyse of the interconnections of the theoretical background with the institutional framework has been performed on the level of EU Public Policies in maritime affairs. This analysis establishes the foundational assumptions necessary for the practical implementation of economic governance approaches within the field of maritime affairs. Marine spatial planning; maritime security; regional cooperation and support for coastal regions; citizen interactions; and ocean literacy are the five primary pillars of the sustainable governance of the blue

economy approach and are closely interrelated to the five primary focus areas of the Blue Growth concept: marine mineral resources; aquaculture; maritime, coastal, and cruise tourism; blue technology; and blue energy. These two approaches are consistent with the institutional framework of maritime economic governance and can be analysed as comprehensive and interrelated economic governance approaches utilising four aggregated research viewpoints on economic governance in marine affairs centred on socio-ecological, environmental, international, and regional standpoints.

The importance of further research and developments of economic governance in maritime affairs is emphasized in order to strengthen the effort to move towards EUs "Sustainable Blue economy". Enhancing the robustness of the institutional framework is crucial for improving governance and allocation mechanisms to achieve economic outcomes while ensuring resource sustainability. This is particularly significant in the light of Hardin's well-known problem of the "tragedy of the commons" [18] and the potential solutions proposed by contemporary scientific research.

Given the current extensive impacts and ongoing pressures on marine resources due to various human activities and social interactions in maritime affairs, there is an urgent need for more effective economic governance measures applied within the maritime affairs.

Acknowledgments

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References

- 1. Alchian, A. A., (1950). Uncertainty, Evolution, and Economic Theory. The Journal of Political Economy, 58 (3), p. 211-221.
- Anderson, W., Weidner, E. W., (1950). American City Government. New York: Henry Holt.
 Buchanan, J. M., (1965). An Economic Theory of Clubs. Economica, 32 (125), p.1–14.
- 4. Dasgupta, P. S., Heal, G. M., (1979). Economic Theory and Exhaustible Resources. Cambridge: Cambridge University Press.
- 5. Debelić, B., (2013). Agency Theory and a Concession Relation in Ports Open to Public Traffic in the Function of Empowerment of Entrepreneurial Initiatives. Pomorstvo - Scientific Journal of Maritime Research, 27 (1), p. 225-246.
- 6. Debelić, B., (2013): Racionalizacija mehanizma alokacije pomorskog dobra republike hrvatske (doktorska disertacija). Rijeka: Ekonomski fakultet Sveučilišta u Rijeci.
- 7. Debelić, B., (2018). Maritime Common Good and Coastal Zone Management. Pomorstvo -Scientific Journal of Maritime Research, 32 (1), p. 152-161.
- 8. Dixit, A. (2003). On Modes of Economic Governance. Econometrica, 71 (2), p. 449–481.
- 9. Dixit, A. K., (2008). "economic governance" The New Palgrave Dictionary of Economics. Eds. Durlauf, S. N., Blume, L. E. Palgrave Macmillan, Available at: http://www.dictionaryofeconomics. com/article?id=pde2008 E000260 (Accessed: 12 August 2013).
- 10. European Commission, (2010 a). IP/10/1199, EU economic governance: the Commission delivers

- a comprehensive package of legislative measures.
- 11. European Commission, (2010 b). COM(2010) 522, Proposal for a Council Regulation amending Regulation (EC) No 1467/97 on speeding up and clarifying the implementation of the excessive deficit procedure.
- 12. European Commission, (2010 c). COM(2010) 526, Proposal for a Regulation amending Regulation (EC) No 1466/97 on the strengthening of the surveillance of budgetary positions and the surveillance and coordination of economic policies.
- 13. European Commission, (2012). COM(2012) 0494, Blue Growth opportunities for marine and maritime sustainable growth.
- 14. European Commission, (2021). COM(2021) 240, New approach for a sustainable blue economy in the EU, Transforming the EU's Blue Economy for a Sustainable Future.
- 15. Fudge, M. and Leith, P. (2021). Rethinking Participation in Commons Governance: Political Representation and Participation, Society & Natural Resources, 34(8), p. 1038–1055.
- 16. Friesema, H. P., (1966). The Metropolis and the Maze of Local Government. Urban Affairs Review, 2 (2), p. 68-90.
- 17. Gulick, L., (1957). Metropolitan Organization. The ANNALS of the American Academy of Political and Social Science, 314 (1), p. 57-65.
- 18. Hardin, G., (1968). The Tragedy of the Commons, Science, 162, p. 1243–1248.
- Kiser, L. L., Ostrom, E., (1982). The Three Worlds of Action: A Metatheoretical Synthesis of Institutional Approaches, u: Ostrom, E. Strategies of Political Inquiry. Beverly Hills: Sage, p. 179–222.
- Lueck, D., Miceli, T. J., (2007). Property Law, in: Polinsky, A. M., Shavell, S. (eds.). Handbook of Law and Economics, Vol. 1. Amsterdam, Oxford: North-Holland.
- McGinnis, M. D., (1999). Polycentricity and Local Public Economies: Readings from the Workshop in Political Theory and Policy Analysis, Ann Arbor: University of Michigan Press.
- 22. McGinnis, M. D., (1999b). Polycentric Governance and Development: Readings from the Workshop in Political Theory and Policy Analysis, Ann Arbor: University of Michigan Press.
- 23. McGinnis, M. D., (2000). Polycentric Games and Institutions: Readings from the Workshop in Political Theory and Policy Analysis, Ann Arbor: University of Michigan Press.
- 24. Mediterranean Action Plan, (2013). http://www.unepmap.org (17.02.2013, 15.05.2024)
- North, D. C. (2003). Institucije, institucionalna promjena i ekonomska uspješnost. Zagreb: Masmedia.
- 26. Ostrom, E., (2005). Understanding Institutional Diversity. Princeton: Princeton University Press.
- 27. Ostrom, E., (2010). Beyond Markets and States: Polycentric Governance of Complex Economic Systems. American Economic Review, 100 (3), p. 641–672.
- 28. Ostrom, E., (2012). Why Do We Need to Protect Institutional Diversity?, European Political Science, 11 (1), p. 128–147.
- Ostrom, V., (1975). Language, Theory and Empirical Research in Policy Analysis, Policy Studies Journal, 3 (3), p. 274–282.
- Ostrom, V., Ostrom, E., (1977). Public Goods and Public Choices, u: Savas, E. S. Alternatives for Delivering Public Services: Toward Improved Performance. Boulder: Westview Press. p. 7–49.
- 31. Ostrom, V., Tiebout, C. M., Warren, R., (1961). The Organization of Government in Metropolitan Areas: A Theoretical Inquiry, American Political Science Review, 55 (4), p. 831–842.
- Protocol on Integrated Coastal Zone Management in the Mediterranean (Official Journal L 34/2009)
- 33. Robbins, L., (1945). An Essay on the Nature and Significance of Economic Science, 2nd ed. revised and extended. London: Macmillan and Co.
- 34. Regional Seas Programme, (2012). http://www.unep.ch/regionalseas/ (07.12.2012)
- 35. Samuelson, P. A., (1954). The Pure Theory of Public Expenditure. The Review of Economics and Statistics, 36 (4), p. 387–389.
- 36. Schlager, E., Ostrom, E., (1992). Property-Rights Regimes and Natural Resources: A Conceptual Analysis. Land Economics, 68 (3), p. 249–262.
- 37. Schofield, N., (1985). Anarchy, Altruism and Cooperation: A Review. Social Choice and Welfare, 2 (3), p. 207–219.
- 38. The Nobel Foundation (2024). The Nobel Prize. Available at: https://www.nobelprize.org (Accessed: 04.03.2024.).

- 39. Vukelić, G., Ogrizovic, D., Bernečić, D., Glujić, D., and Vizentin, G., (2023). Application of VR Technology for Maritime Firefighting and Evacuation Training A Review. Journal of Marine Science and Engineering, 11 (9), p. 1732.
- 40. Woodrow, W., (2009). Congressional Government: A Study in American Politics, 4th ed. New Brunswick: Transaction Publishers.
- 41. Williamson, O. E., (1975). Markets and Hierarchies: Analysis and Antitrust Implications. New York: Free Press.
- 42. Williamson, O. E. (2005). The Economics of Governance. American Economic Review, 95 (2), p. 1–18.
- 43. Zakon o pomorskom dobru i morskim lukama (NN 158/2003, 100/2004, 141/2006, 38/2009, 123/2011, 56/2016, 98/2019)
- 44. Zakon o pomorskom dobru i morskim lukama (NN 83/2023)
- 45. Zakon o potvrđivanju Protokola o integralnom upravljanju obalnim područjem Sredozemlja (Međunarodni ugovori 8/2012)