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BIBLIOMETRIC ANALYSIS OF PROJECT LOGISTICS IN MARITIME TRANSPORT

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Abstract.
Maritime transport underpins global trade, and project logistics (PL) covers the movement of high-value, out-of-gauge cargoes requiring specialised handling and heavy-lift capabilities. The research niche of this article is the absence of a bibliometric mapping of maritime PL, as most maritime logistics studies focus on container and bulk shipping. The purpose of the research was to map the evolution, contributors and dominant themes of maritime PL research. We hypothesised that publication activity has accelerated after 2019 and that the literature is concentrated around a limited number of countries/authors and optimisation-oriented (MCDM) approaches. A bibliometric analysis was performed on Web of Science (WoS) records published between 1945 and 2025. After keyword filtering and PRISMA 2020 screening, 26 documents were retained and analysed in VOSviewer 1.6.20 using performance indicators (TPC, TCC, CPP) and network mapping (co-authorship, co-citation and keyword co-occurrence). The results show a clear increase in publications after 2019; proceeding papers slightly outnumber journal articles; China, Turkey, India and Singapore are the most productive countries, with India and Turkey occupying central positions in the co-authorship network. Keyword analysis indicates that PL research is largely framed through MCDM and optimisation methods. The hypotheses were supported, and the study provides the first quantitative baseline of the field and outlines directions for future empirical research, including potential defence-related applications.
Keywords:
Maritime; maritime transport; Project Logistics; project cargo; bibliometric analysis

Introduction

The most preferred type of transportation in world trade and the global economy is maritime transportation, with a preference rate of over 80% (UN Trade and Development, UNCTAD 2024). Project logistics (PL), which is a different version of tramp transportation under maritime transportation, differs from cargo types such as bulk cargo, as cargoes are generally transported on a unique and one-time project basis (Fagerholt et al. 2013). Cargoes in PL are often equipment with a small number of parts, which are high-value and critical parts that require special handling and storage (UK P&I Club 2023). In other words, PL is a type of transportation that is different from tramp transportation. This mode of transportation involves the movement of equipment that is not considered standard, due to its unique dimensions and the necessity for specialized equipment and storage facilities.

In the literature, studies have generally been conducted on container and bulk transportation, which is a type of traditional tramp transportation (Turbaningsih 2022). In the context of an evolving field, it is essential to employ a systematic approach in order to identify the prevailing trends, measure the number of publications, and ascertain the direction in which the field is evolving. Therefore, the following research questions (RQ), which are expected to be answered in this study, have come to the fore:

RQ1- What is the number of studies in PL field on a yearly basis?

RQ2- Which document type has been published the most in PL field?

RQ3- Who are the most prolific authors and countries in PL field?

RQ4- Which topics have been studied the most in PL field?

The research problem addressed in this study is the lack of a consolidated, quantitative overview of maritime project logistics (PL) research, which makes it difficult to identify publication trends, key contributors and dominant thematic/methodological streams. The research niche of this article is therefore the absence of a bibliometric mapping of maritime PL, particularly given the increasing reliance of military operations on oversized cargo movements, dual-use infrastructure, and civilian-military logistics integration. Hence the study provides a foundational analysis of the commercial corpus and lays the groundwork for future research efforts focused on military applications of PL. The purpose of the article is to fill this niche by analysing WoS-indexed publications from 1945–2025. We hypothesise that (H1) publication activity has accelerated after 2019 and (H2) the field is concentrated around a small set of countries/authors and is dominated by optimisation-oriented MCDM approaches.

In order to answer the research questions and map the studies on PL, the bibliometric analysis method was used in this study, and the studies published on PL between 1945-2025 in the WoS database were examined. In the literature, industry 4.0 in maritime (Razmjooei et al. 2023), maritime journals (Yorulmaz and Barış 2021),

cybersecurity in maritime (Peng et al. 2025), green shipping (Jugović et al. 2025) and zero-carbon shipping (Anantharaman et al., 2025), port automation in maritime (Zou et al. 2025), ship automation (Özkan and Sevgili 2025; Belabyad et al. 2025) and seafarers (Yorulmaz and Canbaz 2023) has studied, but no bibliometric study on PL was found. While PL plays a vital role across both commercial and military fields, a systematic review of the relevant publications revealed no bibliometric analyses addressing PL from a military perspective as well. This emphasises a notable gap in the field, despite the increasing operational reliance of armed forces on heavy-lift transport, strategic sealift capabilities, and shared civilian-military infrastructure.

This study is the first bibliometric study to systematically map the structure of PL. It establishes a conceptual baseline within the commercial domain and serves for future investigations that aim to explore its military dimensions. Since PL is a complex field that includes many interconnected elements such as heavy and bulky cargo transportation, special ship types, port infrastructure, engineering requirements, route planning, risk management and supply chain coordination, this diversity has produced a widespread but not holistic content in the literature. At the same time, the high degree of dependence of PL on maritime transportation by its nature makes it necessary to evaluate how this type of transportation is handled in the literature. Bibliometric analysis, on the other hand, provides the opportunity to draw the scientific framework of the field more clearly by making the intersections between disciplines such as maritime transportation, logistics, supply chain, engineering and sustainability visible. From an industrial perspective, since PL is an integral component of strategic industries such as energy, defence, infrastructure, and megaprojects, bibliometric findings constitute a valuable source of information for port planning, fleet investments, risk management, sustainable transportation policies, and logistics decision-making processes. As a result, a bibliometric study on maritime project transportation contributes to the literature by analysing the current situation of the literature in a holistic manner and is of strategic importance by presenting a data-based roadmap for the dynamics, needs and future research trends of the industry. This study, quantitatively reveals the current trends and development areas in PL field. Since there is no previous study with the bibliometric analysis method in PL field, this study is expected to contribute to the literature.

Project Logistics

PL involves the handling of high-value, heavy and critical cargoes are handled using a certain non-standard methods and tools, which usually require non-standard, load-specific stacking (UK P&I Club 2023). Since the cargoes handled under PL require separate planning and expertise specific to each transportation (Turbaningsih 2022), the PL field should be examined separately from other maritime

related areas. Studies in PL field consider the transportation of heavy and high-volume cargo as a separate area of expertise and define this field under the concept of "project logistics" or "project cargo logistics" (Şakar et al. 2018; Turbaningsih 2022; Görçün and Doğan 2023). Şakar et al. (2018) conducted a Delphi study on value creation in PL. In the study, the necessity of removing obstacles in order to create value in PL is mentioned, and the importance of efficiency and technology in terms of operational and service is emphasized in order to create value. Görçün et al. (2026), on the other hand, examined the studies carried out in the field of oversize and overweight transportation under the PL, and revealed that route selection is taken as the main problem and MCDM (Multi-Criteria Decision Making Methods) is generally used. Due to the size of the wind turbines, their transportation is carried out by PL. Hong et al. (2024), who studied on this topic, drew attention to the existing gap in the literature for the transportation of wind turbines in a part of their study. These are that simulations and optimization are carried out in a limited framework, the established systems lack real-time data, and the reliability of the simulations is increased.

It can be seen that from the 1990s to the 2000s the understanding of PL has evolved from the flow of materials in the construction industry to an understanding that includes information transparency and proactive deliveries throughout the supply chain (Agapiou et al. 1998; Caron et al. 1998; Ala-Risku and Kärkkäinen 2006). Based on the information, in the historical framework, PL can be interpreted as a management tool aimed at increasing the efficiency of material flow within the construction site, but over time, it has become a concept that has expanded to include multimodal heavy cargo and project cargo transportation, including maritime transportation. In addition, studies on different cargo types, such as the study conducted by Hong et al. (2024), may cause the PL field to expand according to different cargo types. The fact that there are few studies on PL in the literature, but it is mentioned as a side topic in studies dealing with different subjects, can be inferred that the PL field supports other fields. In PL involving dangerous products or cargo of out-of-gauge sizes, it is mandatory to provide an expert, sufficient hardware and information system equipment (Şakar et al. 2018). Therefore, it is necessary to draw attention to filling the gap in the literature on this subject with more studies.

Although existing studies address selected operational problems in PL, the evidence base remains dispersed across adjacent domains (e.g., construction logistics, maritime transport and decision-support methods) and often treats PL as a secondary topic. This fragmentation makes it difficult to assess how the field has evolved, who the key contributors are and which themes dominate. Therefore, a bibliometric approach is appropriate to provide a structured overview of the literature, as described in the following section.

Research Method

The application and mapping of quantitative data on bibliometric data such as the distribution of citations by years, the frequency of researched topics, the most productive organizations, the most productive authors are defined as the bibliometric analysis method in the literature (Pritchard 1969). It aims to examine and map the statistical development of scientific studies on the subject of interest over the years and is a multidisciplinary method that includes mathematics, statistics, and linguistics (Lau et al. 2024). The bibliometric analysis method is a frequently used method in the maritime field (Jovanović et al. 2024; Wang et al. 2024; Zou et al. 2025), and although the method is not new, its prevalence in the literature has been increasing over the years (Donthu et al. 2021). The fact that maritime transportation has shown more significant growth compared to other modes of transportation (Xiao et al., 2024), the amount and diversity of cargo handled in ports, and the increasing port automation (Eyit et al. 2022; Yorulmaz and Baykan 2024) also make it important to quantitatively reveal the future trends and research gaps in emerging areas in the literature such as PL. Therefore, in this study, the studies carried out in PL by sea were examined in detail, bibliometric analysis was made and the area was mapped in detail.

This study preferred to map the studies in the WoS database, which is at the forefront with its consistency (Mustapa et al. 2025), since Google Scholar and Scopus can sometimes include problematic publications (Abalkina 2024).

The stages delineated in Table 1 were applied in order to obtain bibliometric data related to PL. In order to find the studies framed under the PL topic, "Topic" was selected and the main keywords were determined (S1), "All fields" was selected in order to access the PL studies in the field of maritime transportation, and the keywords in S1 were connected with the Boolean operator "AND" (S2). In the studies reached, "All fields" was selected in order to be filtered only as PL in the maritime field, out-of-field subjects were identified and "NOT" was enabled with the Boolean operator (S3). While choosing the relevant keywords, the roots of the words were taken and an inclusive approach was adopted with the truncation/wildcard (*) symbol. The studies obtained were found as "Article" and "Proceeding Paper", and these document types were selected (S4). Years filtered to 1945-2025 (S5), with language selected only in English (S6). Then, all filtered studies were manually examined, and unrelated studies were manually excluded (S7). On 30.10.2025, a total of 26 studies published with relevant keywords between 1945 and 2025 were reached (Table 1).

Table 1. Steps of the research

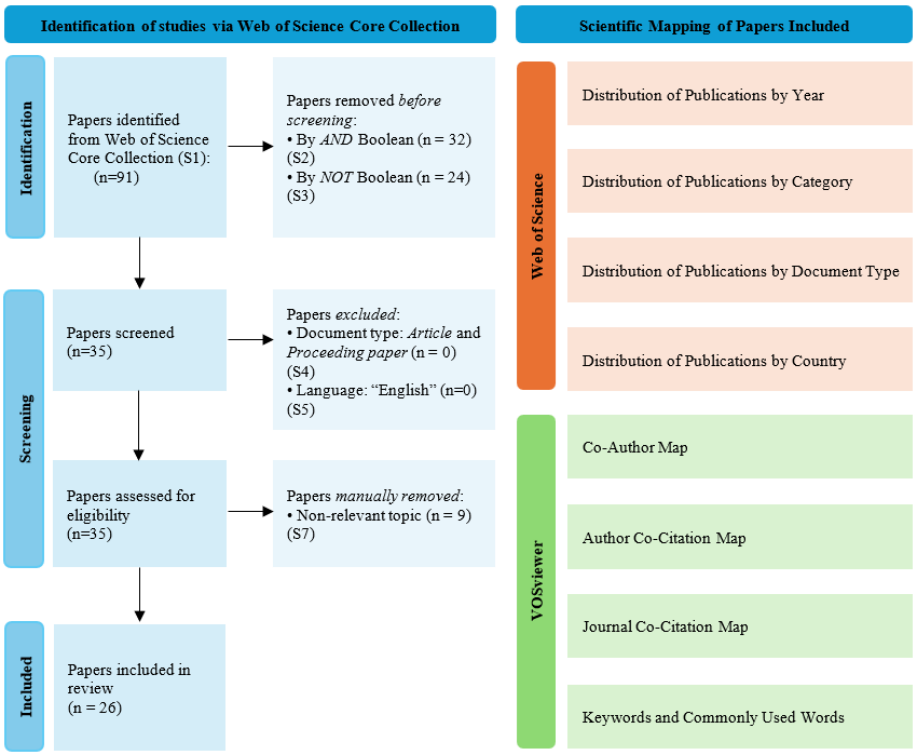
Stage (S)				Papers Found (n)
S1		Topic	(„project logistics*” OR „project logistic*” OR „project cargo*”)	91
S2	And	All fields	(„maritime*” OR „logistics*” OR „sea*” OR „ocean*” OR „vessel*” OR „port*” OR „terminal*” OR „ship*”)	59
S3	Not	All fields	(„health*” OR „education*” OR „astronom*” OR „Biomass*” OR „geograph*” OR „geolog*” OR „archaeolog*”)	35
S4	Document Type		Article and Proceeding Paper	35
S5	Publication Date		All years (1945 – 2025)	35
S6	Language		Only English	35
S7	Initialize		Non-relevant papers manually removed	26

Source: own study

In order to systematically structure and transfer the steps of the study, visualization and a methodology were needed. Therefore, the PRISMA 2020 method which is proposed by Page et al. (2021), and also widely used in systematic mapping studies in the literature (Díaz-Secades et al. 2023; Amran et al. 2025) have applied (Table 2). 26 studies on PL were examined with version 1.6.20 of the VOSviewer software, developed by Eck and Waltman (2010), which is considered reliable and widely used in the literature (Anantharaman et al. 2025; Jugović et al. 2025).

Despite the important role that PL plays in both commercial and military supply chains, a comprehensive review of the WoS database reveals a clear focus on the commercial approach in academic publications, rather than studies within a military framework. To date, no bibliometric studies have been identified that systematically examine PL through a military perspective within used keywords.

Table 2. Methodological design of the study



Source: own study

Findings

Distribution of Publications by Years

Figure 1 presents the number of publications and citations of citations and publications of studies published between 1945 and 2025 is given in Fig. 1. The relevant table is taken from the WoS database. According to the table, the number of publications and citations increased slightly between 1999-2018, there was a noticeable increase in the number of citations in 2019 and after, and when the number of publications/year is calculated, the number of publications was 0.84 per year in 1999-2018, and 1.66 studies were published per year after 2019. From this point of view, it can be stated that the field of PL is an area that has been developing over the years (Figure 1).

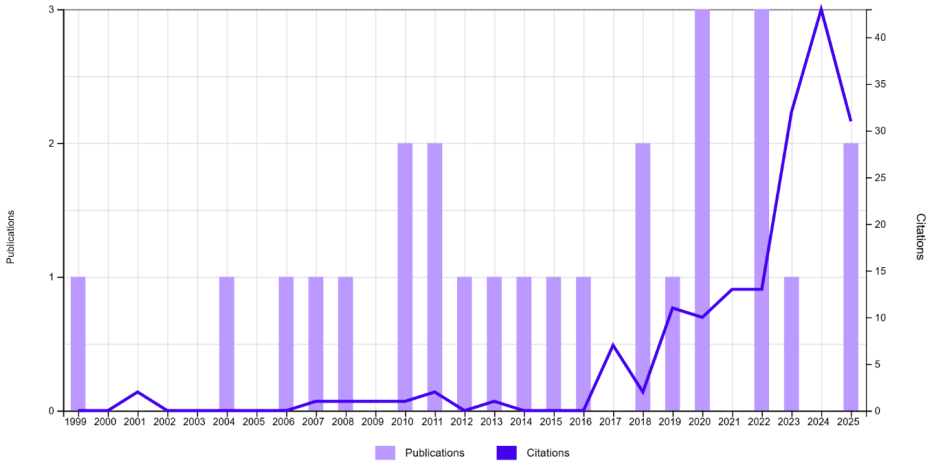


Figure 1. Distribution of Publications by Years
Source: own study

Distribution of Publications by Document Types

The distribution of the studies carried out in PL field according to document types is given in Table 3. The relevant table is taken from the WoS database. According to the table, Proceeding papers outnumber journal articles in PL field. This may mean that studies in the field are moving in the direction of the trend and are being discussed at scientific events (Table 3).

Table 3. Distribution of Publications by Document Types

Document type	Paper Count	Percentage
Proceeding Paper	14	53.846%
Article	12	46.154%

Source: Own study

Distribution of Publications by Country

The distribution of publications in PL field by country is presented in Figure 2. The relevant figure is taken from the WoS database. According to the figure, *People's Republic of China (PRC) ranked first*, followed by *India*, *Singapore*, *Turkey* and *Türkiye*. The fact that Turkey and Türkiye are two separate countries may be due to the studies published before and after Türkiye's country name change (Figure 2).

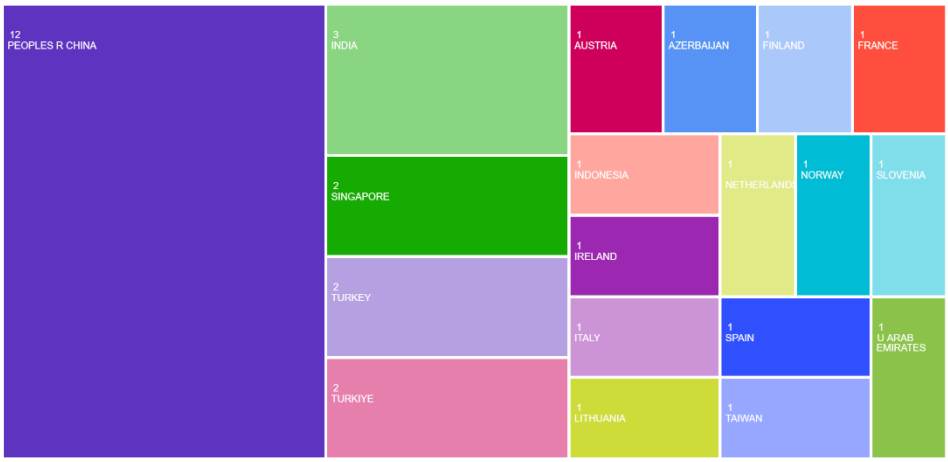


Figure 2. Distribution of Publications by Country
Source: own study

The most prolific countries in PL field according to the WoS bibliometric data are presented in Table 4. Citations per Publication (CPP) in the table is calculated by dividing Total Citation Count (TCC) by Total Publication Count (TPC), as used in the literature (Ho et al. 2023). Furthermore, as Türkiye is listed twice in WoS (Turkey and Türkiye), the values have been combined in the relevant table. According to the calculations, the country with the highest TPC value is PRC, and the country with the highest CPP value is Turkey.

Table 4. The most prolific countries in the field

Country	TPC	TCC	CPP
PRC	12	26	2.1
India	3	7	2.3
Turkey / Türkiye	4	25	6.2
Singapore	2	11	5.5
Indonesia	1	3	3

Source: own study

Countries' Co-authorship Map

The co-authorship map of the countries by year is presented in Figure 3. The size of the nodes is proportional to the citations they receive to the work of the countries. In addition, the colours of the nodes vary according to the years of the

studies. According to Figure 3, India has formed the *largest and oldest node,* followed by *Turkey, Azerbaijan, Taiwan* and *Lithuania* (Figure 3).

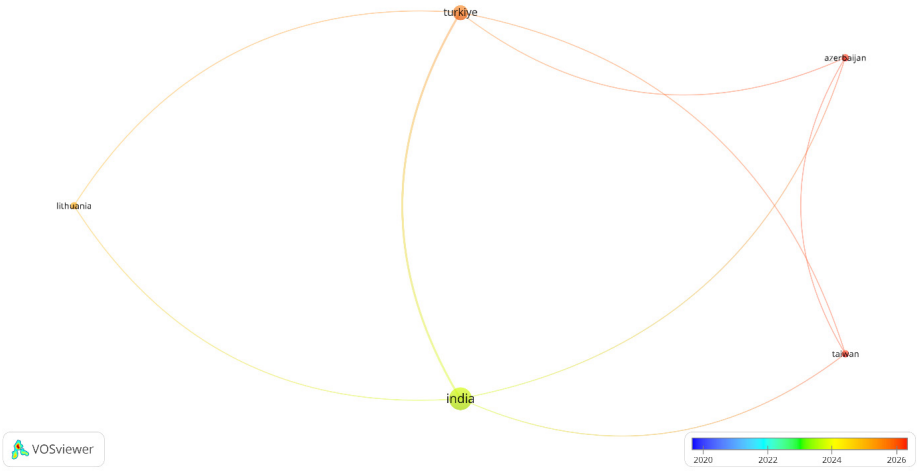


Figure 3. Co-authorship map of countries by year
Source: own study

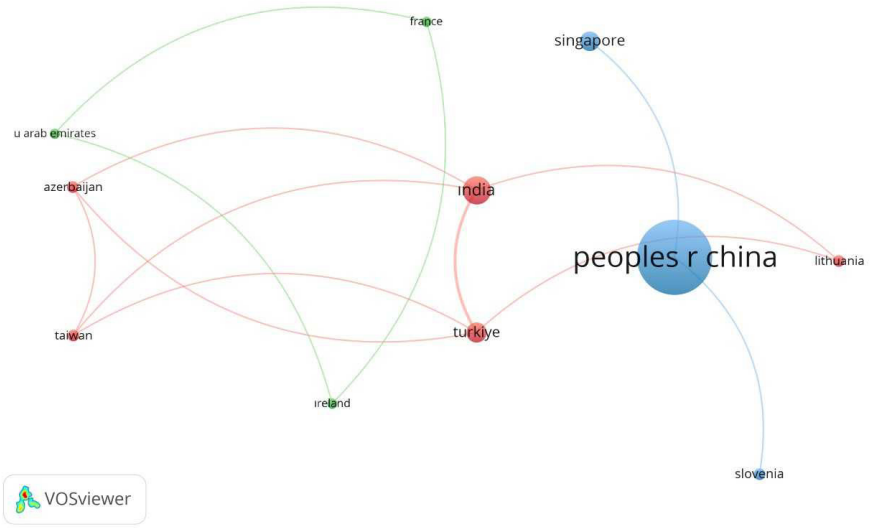


Figure 4. Co-authorship clusters of countries
Source: own study

Due to the low number of studies, the initial VOSviewer clustering was difficult to interpret because of the small corpus. There was a need to analyse the clusters in more detail. There are much smaller and invisible clusters in the data. The clusters were opened and manually combined for more detailed examination and to see the clusters in a single image. The positions of the clusters were made manually, and the sizes of the nodes were made with VOSviewer's algorithm, and Figure 4 was created (Figure 4). According to the relevant figure, "*PRC*" has the largest node, but relatively few co-authorships with other countries for its size.

Authors' Co-Citation Map

The co-citation map of the authors is given in Figure 5. In the relevant figure, the size of the nodes represents the number of citations, and the colours of the nodes represent the publication dates. According to the relevant figure, *Gorcun* is in the central position with the number of citations, followed by *Dogan* (Figure 5).

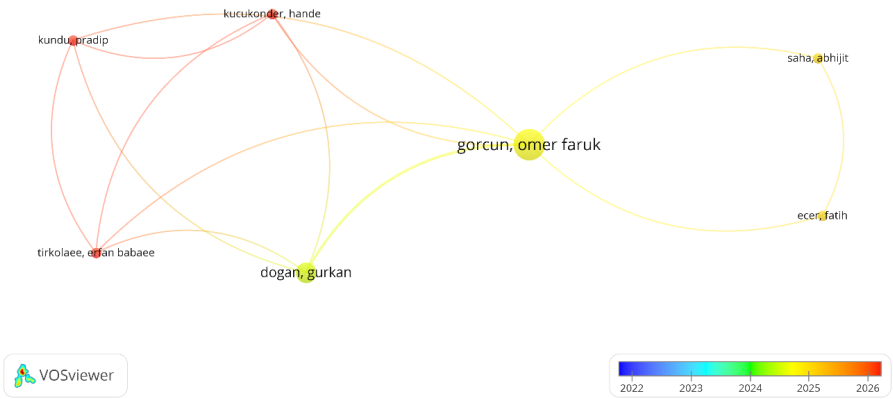


Figure 5. Authors ' co-citation map
Source: own study

The most prolific authors in the PL field are shown in Table 5. Given the small corpus (n = 26), the table lists only authors with at least two publications (TPC ≥ 2) to identify the most prolific contributors and avoid over-interpreting single-paper contributions. O.F. Gorcun has the highest publication output (TPC = 3), while G. Dogan has the highest citations per publication (CPP = 8.0).

Table 5. Most prolific authors in maritime project logistics research (TPC ≥ 2)

Author	TPC	TCC	CPP
Gorcun, Omer Faruk	3	22	7.3
Dogan, Gurkan	2	16	8

Source: own study (based on WoS)

Note: TPC—Total Publication Count; TCC—Total Citation Count; CPP—Citations per Publication (TCC/TPC)

Co-citation Map of Journals

Figure 6 shows the co-citation map of the journals. Centrally located "*Cogent Social Sciences*" (CSS). "*Journal of ETA Maritime Science*" and "*Expert Systems with Application*" seem to have established a co-citation relationship with the *"CSS"* journal (Figure 6).

Figure 6. Co-citation Map of Journals
Source: own study

Keywords and Frequently Used Words

Words that are frequently used and cited in PL field are given in Figure 7. The nodes in the figure grow according to the frequency of use in the studies, and their colours are determined according to the number of citations they receive. The largest node belongs to the word *"Project Logistics"*, followed by "*Optimization*" and "*Decision Network Planning*". When the keywords in the red cluster with around 15 citations (*Fuzzy BWM, Fuzzy Marcos, Criteria, Mobile Crane Selection*) are examined (Figure 7), it can be shown that MCDM methods are commonly used in PL field.

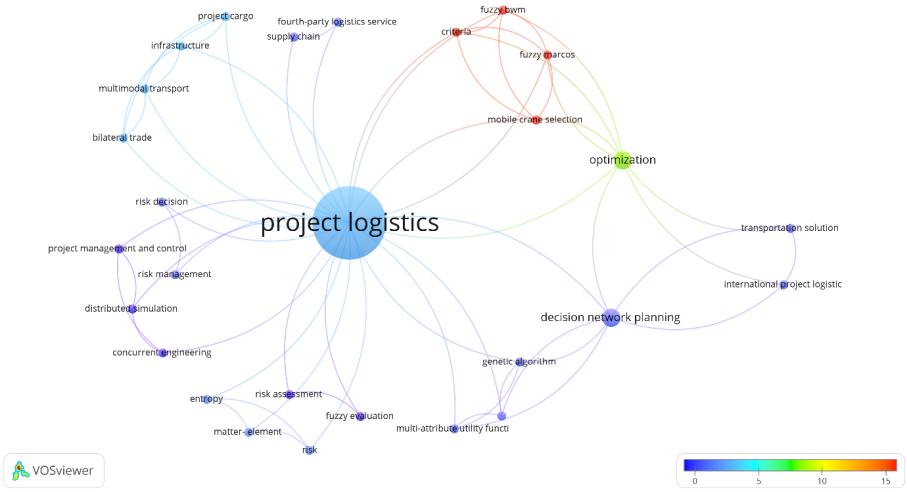


Figure 7. Keywords and Frequently Used Words
Source: own study

Discussion and Conclusion

Maritime transport is the most preferred mode of transport worldwide. Project logistics is under maritime transportation and differs from classical tramp transportation in terms of operational and type of cargo handled. Therefore, project logistics can be positioned in the literature as a field where high-value cargo types with unusual dimensions are managed with special equipment and storage processes. It has been observed that the field of project logistics, which is under the most preferred type of transportation in the world and where special cargoes are handled, has been examined in a limited way in the literature. In the literature, it can be interpreted that while project logistics was initially used to increase the efficiency of material flow in construction, it has become a concept that has expanded to include multimodal project cargo transportation, including maritime transportation. The literature mainly focuses on container and tramp transportation, project logistics appears largely supportive of other fields, and only 26 studies were identified between 1945–2025 using the selected keywords. Consequently, one of the starting points of this study has been addressed, and the gap in project logistics field has been systematically revealed.

Project logistics requires special expertise due to the need to transport special cargoes with unusual sizes. It is important that studies are conducted in the literature to enhance this expertise. Therefore, it is important to systematically map the studies on this subject. In this context, this study systematically examined the field of project logistics with the bibliometric analysis method, aimed to reveal the number of studies on a yearly basis (RQ1), the most published document types (RQ2), the most prolific authors and countries (RQ3), the most studied topics under project logistics (RQ4), and mapped the field.

In this study, Pritchard (1969)'s bibliometric analysis method was adopted methodically. In the WoS database, the studies were filtered using the specified keywords and processed through the ST1–ST7 presented in Table 1, and a final dataset of 26 studies was obtained. In order to put this study on a systematic level, the PRISMA 2020 approach was applied and the relevant data were mapped with VOSviewer 1.6.20 software.

According to the findings, studies showed an increasing trend between 1999 and 2018, followed by a significant rise in citations and publications after 2019, with the annual average increasing from 0.84 to 1.66 (RQ1). This indicates that the field has become more visible in recent years and scientific interest is increasing rapidly. Following a comprehensive analysis, it was observed that Proceeding Papers are more prevalent than Articles (RQ2). This may indicate that the subject is an immature field that is discussed in scientific conferences. However, the limited number of studies obtained as a result of keyword searches reveals that the literature is not yet fully mature and more empirical and theoretical studies are needed in the field to strengthen interpretations of current trends. It is therefore imperative that the existing body of literature on this subject is expanded and that greater methodological diversity is encouraged, in order to facilitate further scientific progress.

The fact that *People's Republic of China* ranks first among the countries in the number of publications, followed by *Turkey, India,* and *Singapore* may indicate that the studies are concentrated in certain geographical clusters. Upon the formation of large nodes in the co-authorship network, it can be interpreted that some clusters have started to form despite limited cooperation. The findings show that the project logistics literature is concentrated in certain geographical clusters. Furthermore, an analysis of the data set indicated that *People's Republic of China* emerged as the most prolific country, while Gorcun was identified as the most productive author (RQ3). The fact that *People's Republic of China* is the most prolific country, reveals that research activities are gathered on an Asia-cantered axis. This suggests that regional economic growth, infrastructure investments, and strategic needs for project transportation directly affect academic production. In the co-authorship network analysis, the fact that India and Turkey form large nodes shows that although the number of publications in these countries is high, international cooperation is

still limited, but despite this, regional research clusters have started to take shape. Therefore, although the project logistics field is concentrated in certain countries, it has significant potential for the development of larger-scale collaborations and multinational research networks in the future.

The central position of *Gorcun* and *Dogan* in the co-citation map of the authors and the central position of *Cogent Social Sciences* in the journal co-citation map indicate that certain authors and journals have become references among a small number of publications. This finding suggests that the field is still in its early stages of development, with a limited number of studies strongly citing specific authors and journals. The central location of *Gorcun* and *Dogan* in the author's co-citation map suggests that these two researchers stand out as the main sources in the project logistics and maritime transportation literature and that their work shapes the academic infrastructure of the field recently. Similarly, the fact that *Cogent Social Sciences* forms a central node in journal co-citation analysis indicates that certain journals have become a reference point in the field, despite the low number of publications. This shows that the citation networks in the literature have not yet gained a wide variety, but the existing studies are concentrated around certain core sources; therefore, it reveals that the discipline has a development process that is open to more diversification with new authors, journals and thematic focuses in the future.

In the analysis of the keywords used in the studies, *Optimization* and *Decision Network Planning* came to the fore in addition to *Project Logistics*, additionally, keywords such as *Fuzzy BWM*, *Fuzzy Marcos*, *Criteria*, *Mobile Crane Selection* came to the fore and clustered, MCDM in a significant part of the studies in the data approach, so in this study, the same conclusion was reached as mentioned in the study of Görçün et al. (2026). This finding shows that the methodological concentration in the project logistics literature is clearly centred around MCDM approaches. The prominence of the concepts of *Optimization* and *Decision Network Planning* along with *Project Logistics* in keyword analysis, as well as the concentration of terms such as *Fuzzy BWM*, *Fuzzy MARCOS*, *Criteria* and *Mobile Crane Selection* in the same clusters, reveal that a significant part of the studies are carried out with methodological frameworks aimed at solving decision-making problems (RQ4). This shows that modellable, measurable and optimization-oriented problems at both operational and strategic levels in project logistics field are increasing; It also proves that analytical methods shape the literature. Furthermore, the results obtained align with the findings outlined in the study by Görçün et al. (2026), confirming the increasing dominance of MCDM-based methods in project logistics research. In this direction, it can be said that the methodological trends in the literature have become more evident, the discipline is more closely related to decision-making tools, and the research area will deepen with the diversification of MCDM techniques in the future.

This study, as the first bibliometric study in project logistics field, makes the increasing number of publications in the field and the subject/country clusters of existing studies visible in a quantitative way. The fact that the field of project logistics is supportive of other fields in the literature, but there are few studies that directly centre this field, has revealed that the gap emphasized by this bibliometric analysis is filled with experimental and conceptual research. The sharp increase in both the number of publications and citation rates in 2019 shows that research on project logistics has been given more importance in recent years due to industrial transformations, technological developments and global supply chain dynamics, and that it has been studied more intensively in line with the developing problems, new applications and emerging research gaps in the field. Therefore, this rapid acceleration in the literature reinforces the necessity of bibliometric analysis studies and provides a comprehensive scientific basis for future research.

The findings of the bibliometric analysis regarding project logistics within the scope of maritime transportation show that the field has room for significant development both thematic and methodological. Accordingly, it is important for future research to examine the operational dynamics of heavy and bulky freight project transportation in more detail. Detailed field studies on issues such as acceptance processes of project cargoes to ports, berth suitability, equipment infrastructure, ship diversity and cargo safety can fill the lack of technical knowledge in the literature. In addition, in today's world where digitalization is increasing rapidly, studies on the effects of digital twins, sensor technologies, data-based monitoring systems and automation applications in project logistics processes need to be increased. With environmental impacts still limited in mind, evaluating project logistics within the framework of carbon emissions, energy efficiency, and green port strategies presents an important opportunity for future research. The human factor and safety culture are also neglected areas in the literature; Examining the effects of employee competence and occupational safety practices on transportation performance in project cargo operations will make valuable contributions to the field. In addition, the limited cooperation between countries necessitates larger-scale, comparative regional studies to understand the role of project logistics in global supply chains. It has been observed that studies in Web of Science only covers project logistics carried by sea particularly from a commercial perspective. Consequently, there appears to be a significant gap in the military perspective on project logistics. It is important that future studies examine the field of project logistics from a military perspective. Consequently, as the first bibliometric study conducted in project logistics field, this research will also contribute to future bibliometric studies from a military perspective.

The main limitations of this study are due to the scope and structural features of the database used. The fact that it is based only on the WoS database has caused studies that are not indexed on these platforms but contribute to the field to be

excluded from the analysis. Keyword searches are sensitive to terminological differences, leading to the risk of missing some publications on project logistics due to limited keyword matches. It has been observed that few studies have been conducted in project logistics field. A significant limitation is the uneven distribution of publications by year, particularly the low number of publications between 1999 and 2018, which makes it difficult to interpret trends, and the rapid increase post-2019 leads to an overrepresentation of certain themes. The fact that the number of citations is time-sensitive may cause older studies to naturally receive more citations and take a central position in network analysis, thus partially distorting thematic development. In addition, the limited representation of studies in languages other than English does not fully reflect the cultural and regional diversity of the literature. The interdisciplinary nature of project logistics has also created uncertainty in the classification of some publications. Lastly, since bibliometric analysis only covers academic publications, practical information such as industry reports, operational data, and application outputs has not been accessed, limiting the evaluation of industrial insights.

The findings support H1, as publication activity and citation counts increase markedly after 2019. They also support H2, since the analysed corpus is concentrated around a small number of countries and two main authors, while the keyword co-occurrence results highlight the dominance of optimisation and MCDM-based approaches. These results confirm that maritime PL remains an emerging and thematically/methodologically narrow research area, which creates clear opportunities for future empirical work.

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