



TRENDS IN LOGISTICS BENCHMARKING: A REVIEW OF THE INTERNATIONAL LITERATURE

TENDÊNCIAS EM BENCHMARKING LOGÍSTICO: UMA REVISÃO DA LITERATURA INTERNACIONAL

TENDENCIAS EN BENCHMARKING LOGÍSTICO: UNA REVISIÓN DE LA LITERATURA INTERNACIONAL



<https://doi.org/10.56238/edimpacto2025.069-005>

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ABSTRACT

Globalization and the intensification of competition have placed logistics at the core of organizational strategies, being considered the “last frontier” for competitiveness gains. In this context, benchmarking emerges as an essential tool to evaluate logistics performance, identify best practices, and support continuous improvement processes. This article aims to review the international literature on benchmarking applied to logistics, building a bibliographic portfolio of the most relevant publications and analyzing their main contributions. Methodologically, a structured literature review was conducted in the Scopus and Web of Science databases, followed by bibliometric analysis supported by the model proposed by Marasco (2008). The resulting portfolio included 11 main articles and 39 supporting references, allowing the identification of recurring authors, journals, and keywords. The findings indicate that research is concentrated between 2006 and 2009, highlighting journals such as *Benchmarking: An International Journal* and *Supply Chain Management: An International Journal*. The most recurrent themes involve logistics benchmarking, strategic management, data analysis, logistics services, and, more recently, sustainability and reverse logistics. The most frequently cited authors were Hokey Min, Seong Jong Joo, Jukka Korpela, and Markku Tuominen, evidencing the concentration of research in North America and Europe. As a contribution, the study synthesizes the state of the art on logistics benchmarking, points out gaps such as the low presence of studies in Brazil, and suggests future research agendas focused on digitalization, green logistics, integration in global supply chains, and performance measurement in collaborative environments.

Keywords: Logistics Benchmarking. Performance Evaluation. Literature Review. Sustainability. Logistics 4.0.

RESUMO

A globalização e a intensificação da concorrência têm colocado a logística no centro das estratégias organizacionais, sendo considerada a “última fronteira” para ganhos de

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competitividade. Nesse contexto, o benchmarking surge como ferramenta essencial para avaliar o desempenho logístico, identificar melhores práticas e apoiar processos de melhoria contínua. Este artigo tem como objetivo revisar a literatura internacional sobre benchmarking aplicado à logística, construindo um portfólio bibliográfico das publicações mais relevantes e analisando suas principais contribuições. Metodologicamente, foi conduzida uma revisão estruturada da literatura nas bases Scopus e Web of Science, seguida de análise bibliométrica com apoio do modelo proposto por Marasco (2008). O portfólio resultante incluiu 11 artigos principais e 39 referências de suporte, permitindo identificar autores, periódicos e palavras-chave recorrentes. Os resultados indicam que as pesquisas se concentram entre 2006 e 2009, destacando periódicos como *Benchmarking: An International Journal* e *Supply Chain Management: An International Journal*. Os temas mais recorrentes envolvem benchmarking logístico, gestão estratégica, análise de dados, serviços logísticos e, mais recentemente, sustentabilidade e logística reversa. Os autores mais citados foram Hokey Min, Seong Jong Joo, Jukka Korpela e Markku Tuominen, evidenciando a concentração das pesquisas na América do Norte e Europa. Como contribuição, o estudo sintetiza o estado da arte sobre benchmarking logístico, aponta lacunas como a baixa presença de estudos no Brasil e sugere futuras agendas de pesquisa voltadas à digitalização, logística verde, integração em cadeias globais e mensuração de desempenho em ambientes colaborativos.

Palavras-chave: Benchmarking Logístico. Avaliação de Desempenho. Revisão de Literatura. Sustentabilidade. Logística 4.0.

RESUMEN

La globalización y la intensificación de la competencia han situado a la logística en el centro de las estrategias organizacionales, siendo considerada la “última frontera” para obtener ventajas competitivas. En este contexto, el benchmarking surge como una herramienta esencial para evaluar el desempeño logístico, identificar mejores prácticas y apoyar los procesos de mejora continua. Este artículo tiene como objetivo revisar la literatura internacional sobre el benchmarking aplicado a la logística, construyendo un portafolio bibliográfico de las publicaciones más relevantes y analizando sus principales contribuciones. Metodológicamente, se realizó una revisión estructurada de la literatura en las bases Scopus y Web of Science, seguida de un análisis bibliométrico apoyado en el modelo propuesto por Marasco (2008). El portafolio resultante incluyó 11 artículos principales y 39 referencias de apoyo, lo que permitió identificar autores, revistas y palabras clave recurrentes. Los resultados indican que las investigaciones se concentran entre 2006 y 2009, destacando revistas como *Benchmarking: An International Journal* y *Supply Chain Management: An International Journal*. Los temas más recurrentes involucran benchmarking logístico, gestión estratégica, análisis de datos, servicios logísticos y, más recientemente, sostenibilidad y logística inversa. Los autores más citados fueron Hokey Min, Seong Jong Joo, Jukka Korpela y Markku Tuominen, evidenciando la concentración de investigaciones en América del Norte y Europa. Como contribución, el estudio sintetiza el estado del arte sobre el benchmarking logístico, señala vacíos como la baja presencia de estudios en Brasil y sugiere futuras agendas de investigación orientadas a la digitalización, la logística verde, la integración en cadenas globales y la medición del desempeño en entornos colaborativos.

Palabras clave: Benchmarking Logístico. Evaluación del Desempeño. Revisión de la Literatura. Sostenibilidad. Logística 4.0.

1 INTRODUCTION

During the last two decades, globalization has emerged as a major force in business strategies, leading companies to develop products designed for a global market and for components of worldwide origin. Logistics has been called the last frontier, and improvements in logistics are key factors in providing good customer service in terms of delivery, punctuality, speed, accuracy, and to maintain a competitive edge. Therefore, the management of logistics functions in global companies involves decision-making for the distribution and supply of goods and services while maximizing value and reducing costs.

In view of this, the efficient use of different logistics resources requires an understanding of the options and alternatives that make it possible to make the right choices in relation to these processes. Benchmarking is an instrument that can help answer this question. The differences in the performance of various aspects related to the logistics of a given organization, and between the logistics systems of different organizations, suggests that there is significant potential for improvement.

With the intention of understanding how benchmarking has been used in the evaluation of logistics performance, this work is carried out a survey of the current situation of research on these topics in the main international journals. For this, a structured method of literature review is applied in order to verify which are the main publications, authors and journals that are working on these themes, as well as which are the main subjects addressed within these researches.

For this, this work was subdivided into four sections, in addition to this brief introduction, there is section two that presents the methodological procedures, section three presents the results of the research, this section is subdivided into bibliometric analysis, synthesis of the subjects covered and the situation of research in Brazil, finally, in section four the conclusions of the article and some recommendations for future research are presented.

2 METHODOLOGICAL PROCEDURES

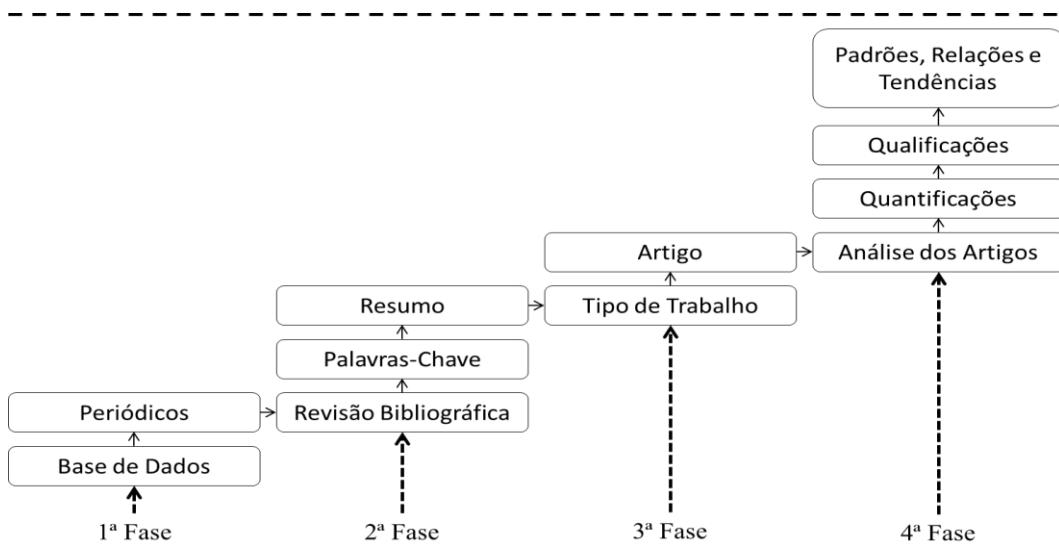
This work can be considered in the conceptual theoretical scope, focusing on the bibliographic analysis to be achieved through a structured literature review (MATHIAS *et al.*, 2012), with the aim of evaluating the benchmarking themes from the perspective of the evaluation of logistics performance. For this, the methodology of bibliographic review with four different phases will be used, as shown in Figure 1.

In the first phase for the composition of the bibliographic portfolio, the *Scopus* and *Web of Science* databases were defined. The choice of the *Scopus database* is due to the fact that it encompasses the journals that publish the most in Production Engineering and

Logistics (MARASCO, 2008). In the case of the choice of *the Web of Science*, it is due to the fact that the main journals in the area of Production Engineering are indexed (MILNITZ and TUBINO, 2013). The research was carried out by searching for publications in journals without time limit to verify the evolution of the themes over the years. The total number of studies found in these databases was the result of the combinations of keywords searched in the titles of the publications.

Figure 1

FlowTable of the method used in the article



Source: Authors, based on the work of Marasco (2008).

In the second phase, the following keywords were defined for the literature review: "benchmarking" and "logistics". The studies found with these two combinations of keywords were mostly book chapters, standards, conference articles, among others. However, the present research focused on international articles, with the aim of giving greater credibility to the work and also delimiting the research. Thus, in the two journals researched, 39 articles were obtained.

After reading the titles and abstracts of the 39 articles, only the articles that had a strong relationship with the application of benchmarking and logistics were selected, thus accounting for 21 publications in the *Scopus* and *Web of Science* databases. This reading also made it possible to separate and discard 10 duplicate works. Therefore, 11 articles were selected with regard to their representativeness or relevance to the themes. After the initial selection, a verification was carried out regarding the scientific relevance of the articles, for which the number of citations was obtained, which was used as a criterion for their permanence in the research publication database. The search for this criterion was carried

out with the help of the *Google Scholar tool*, which presents the number of citations of each article through the title of the article. Table 1 presents the portfolio of articles that were selected for analysis in this work.

Table 1

Selected articles in the bibliographic portfolio

No.	Authors	Article Title	Year of Publication	No. of citations
1	Bozuma <i>et al.</i>	Be Logic - Benchmarking Logistics Chains	2012	2
2	Chan <i>et al.</i>	An AHP approach in benchmarking logistics performance of the postal industry	2006	80
3	Diabat <i>et al.</i>	Benchmarking the interactions among barriers in third-party logistics implementation	2013	11
4	Hastreiter <i>et al.</i>	Benchmarking logistics services in German hospitals - a research status quo	2013	2
5	Hung I. k.	Benchmarking green logistics performance with a composite index	2011	26
6	Johansson and Palsson	The impact of auto-ID on logistics performance - A benchmarking survey of Swedish manufacturing industries	2009	18
7	Jolly <i>et al.</i>	Benchmarking of the textile garment Supply Chain using the SCOR model	2006	4
8	Korpela and Tuominen	Benchmarking Logistics performance with an application of the analytic hierarchy process	1996	114
9	Min e Jong	Benchmarking the operational efficiency of third party logistics providers using data envelopment analysis	2006	148
10	Min e Jong	Benchmarking third-party logistics providers using data envelopment analysis - an update	2009	31
11	Wang and Zhang	Benchmarking model for reverse logistics entry by third-party providers	2009	4

Source: prepared by the authors.

From the bibliographic portfolio, the bibliometric analysis began. This is a method used to map the most relevant authors, journals and keywords on a given topic (THANUSKODI, 2011). Given the importance of this evaluation for the research, the fourth phase of the applied methodology (Figure 1) will be detailed in the next section, where the results of the selected literature review will be presented.

3 RESEARCH RESULTS

An analysis of the characteristics of the articles that make up the bibliographic portfolio on benchmarking in logistics is presented here, in terms of selection of the main works, authors, journals and keywords in this area of study and the situation of research on this topic in Brazil.

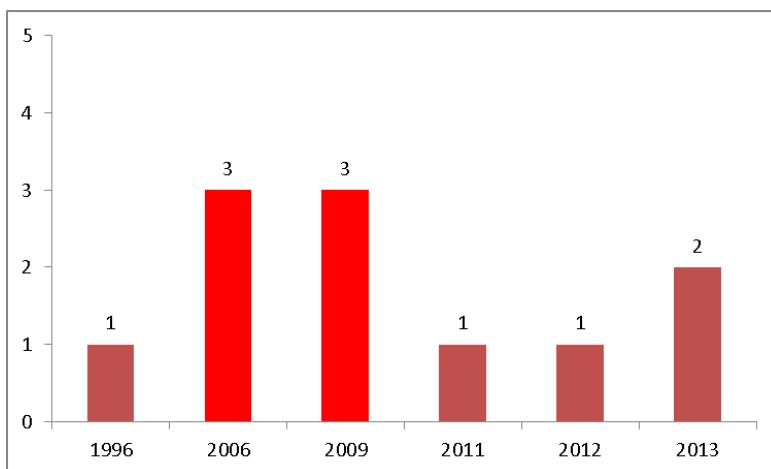
3.1 BIBLIOMETRIC ANALYSIS OF PUBLICATIONS

To portray the situation of publications on the subject of benchmarking applied to evaluate the performance of logistics, some quantitative analyses were carried out on the database obtained in this work. The purpose of these quantifications is to show the number of publications that have occurred over the years, the most cited authors, the main journals that publish studies related to the two themes, and the subjects most addressed and discussed in the articles.

First, all 11 articles were cataloged with their respective year of publication and other relevant information. Having the period in which the article was published, a chronological line of research was created. According to the graph in Figure 2, it is possible to observe that research on the application of benchmarking to evaluate logistics performance began in 1996, peaking between 2006 and 2009. It is also noted that there is a concentration of more than 50% of publications in the periods of 2006 and 2009.

Figure 2

Number of publications per year



Source: prepared by the authors.

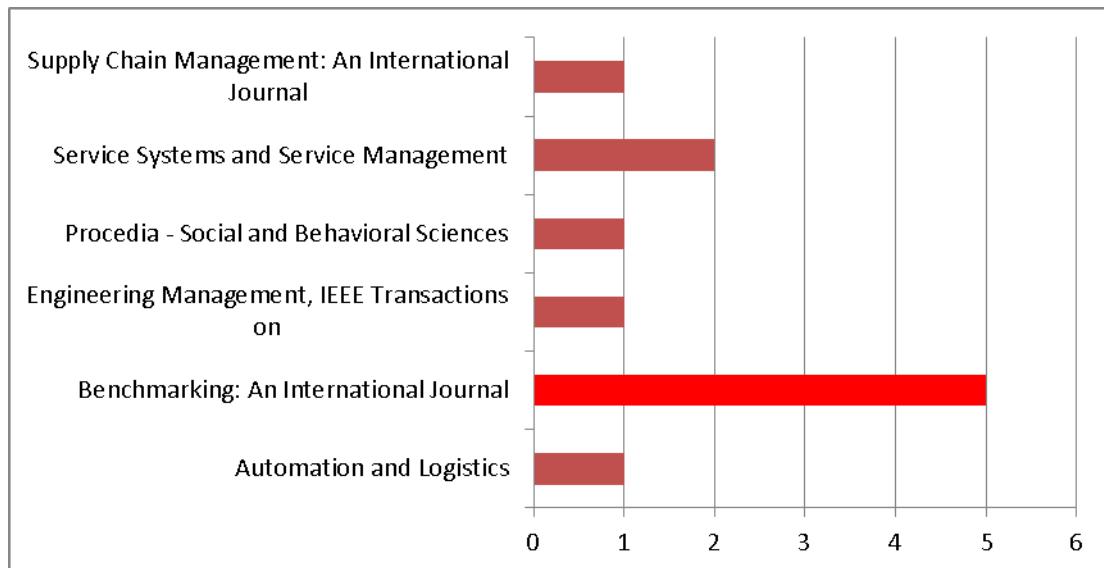
Although the concept of benchmarking was introduced in the mid-1970s by the Xerox company and only twenty-six years later, it was applied to evaluate the performance of logistics, this field of knowledge proves to be relatively new and little explored in the area of logistics, however, with widely referenced researchers. An example is the article "*Benchmarking the operational efficiency of third party logistics providers using data envelopment analysis*" by the authors Min and Jong (2006), with more than one hundred citations. In Table 1, it is possible to verify the most cited authors within the analyzed studies.

Other relevant information about the publications is related to the journal where the papers were published. In this sense, all journals were cataloged, making it possible to show

in this way which journals are the most important within the topics researched (Figure 3). What was evidenced from this analysis is that the research is disseminated in several journals, but the journal "*Benchmarking An International Journal*" had five publications. Perhaps one of the reasons for this concentration is the specificity of the journal itself, which prioritizes publications on the topic of benchmarking.

Figure 3

Number of publications per journal



Source: prepared by the authors.

The last characteristic analyzed was the number of citations by authors and the qualification in relation to the origin of the research. The most cited authors were Hokey Min and Seong Jong Joo with about 33% and Jukka Korpela and Markku Tuominen with about 25% of the total citations. These four authors together represent more than 50% of the total number of citations of all authors in the analyzed portfolio, thus showing their importance to the topic studied. His research is concentrated in North America and Europe, as shown in Table 2.

Table 2

Citations by author and origin of research

Authors	Origin of the Research	No. of Citations
Hokey Min, Seong Jong Joo	North America	148
Jukka Korpela; Markku Tuominen	Europe	114
Felix T.S. Chan, H.K. Chan, Henry C.W., Lau Ralph, W.L.	Asia	80
Hokey Min, Seong Jong Joo	North America	31
Kwok Hung Lau	Oceania	26
Ola Johansson, Henrik Palsson	Europe	18

Ali Diabat Abdallah Khreichah Govindan Kannan Vinay Panikar Angappa Gunasekaran	Asia	11
Shuyun Wang; Shuai Zhang	Asia	4
Anne-Marie Jolly-Desodt, Besoa Rabenasolo, Joseph Lok Wai Lo	Europe	4
Jeroen Bozuwa, Ronald Jorna, Valerio Recagno, Konstantinos Zografas	Europe	2
Stefan Hastreiter, Moike Buck, Franziska Jehle, Heiko Wrobel	Europe	2

Source: prepared by the authors.

3.2 SUMMARY OF THE TOPICS COVERED

In order to show the relevant subjects of the research on the topics of benchmarking and logistics, a selection of the main subjects of each article was made. To this end, the titles, keywords and abstracts were studied, with a maximum of four most prominent topics being recorded. For example, in the article "*An AHP approach in benchmarking logistics performance of the postal industry*" (CHAN *et al.*, 2006), the following subjects were selected: i) *Benchmarking*; ii) *Analytical hierarchy process*; and iii) *Postal services*. These were coded and recorded in an Excel® spreadsheet and cataloged in the database, where the 11 selected publications are listed. A summary of the main issues addressed in the research can be found in Table 3.

Table 3

Topics covered in the Publications of the Research Portfolio

Theme	Sub-Theme	Authors	Articles	Percentage
Benchmarking	-	Chan <i>et al.</i> ; Bozuma <i>et al.</i> ; Hung I. k.; Korpela and Tuominem; Hastreiter <i>et al.</i> ; Wang and Zhang; Jolly <i>et al.</i> ; Diabat <i>et al.</i> ; Min and Jong; Johansson and Palsson	11	100%
Management	Distribution management; Strategic Logistics Management; Resource management; Financial management; Information management	Hung I. k.; Korpela and Tuominem; Min and Jong; Johansson and Palsson;	6	55%
Data analysis	Analytical Hierarchy Process; Decision Support Systems; Interpretive Structural Modeling; Data Analysis	Chan <i>et al.</i> ; Korpela and Tuominem; Diabat <i>et al.</i> ; Min e Jong	5	45%
Service	Postal services; Logistics service; Third-party service providers	Chan <i>et al.</i> ; Korpela and Tuominem; Min and Jong; Wang and Zhang	4	36%
Supply Chain	-	Jolly <i>et al.</i> ; Diabat <i>et al.</i> ; Johansson and Palsson	3	27%
Industrial performance	-	Hung I. k.; Jolly <i>et al.</i> ; Johansson and Palsson	3	27%

Sustainability	Green logistics; Sustainable Development; Reverse logistics	Hung I. k.; Wang and Zhang	3	27%
Logistics	-	Diabat <i>et al.</i> ; Johansson and Palsson	2	18%
Supply chain	-	Bozuma <i>et al.</i>	1	9%
Route Determination	-	Bozuma <i>et al.</i>	1	9%
Intermodal	-	Bozuma <i>et al.</i>	1	9%

Source: prepared by the authors.

As can be seen, there is a concentration of articles that address the subject of benchmarking, with 100% of the studies evaluated. This result shows that the chosen portfolio is directly related to the focus of the research. The topic has been intensely debated in several field researches, especially when it involves management, types of service, supply chain, industrial performance, among other important factors for logistics performance.

Table 4 presents a summary of the authors' statements regarding the importance of Benchmarking for evaluating logistics performance in organizations. These statements demonstrate the view on the application of the method by each author in their research as well as the impact of these results on the scientific environment.

For example, Bozuma *et al.* (2015) states that, "the efficient use of different modes of transport and resources requires the understanding of the options and alternatives capable of making the right choices in relation to logistics and benchmarking is an instrument that can help answer these questions." This placement directly reflects the objective of their research as well as the results obtained, that is, in the article the authors present a benchmarking tool to evaluate the logistics performance of European organizations and the results obtained with this tool.

In the same way, other authors make their statements regarding the topic of benchmarking and their perspectives in relation to the research they are carrying out. Therefore, knowing the position of each author helps in the process of understanding how structured a topic is studied, its gaps and possible research opportunities.

Table 4

Authors' Definition of the Importance of Benchmarking

No.	Authors	Benchmarking Approach
1	Chan <i>et al.</i>	<p>— Benchmarking can be considered as a key element for the continuous improvement of organizations' logistics processes.</p> <p>The benchmarking process can help companies identify their weaknesses and then select the best alternatives in order to improve their logistics performance in relation to the market leader.</p>
2	Bozuma <i>et al.</i>	<p>Efficient use of different modes of transport and resources requires an understanding of the options and alternatives capable of making the right choices with respect to logistics and benchmarking is a tool that can help answer these questions.</p>

3	Hung I. k.	Benchmarking can be a great tool to reduce the impact of logistics business activities on the environment, also known as " <i>Green Logistics</i> ".
4	Korpela and Tuominem	The application of the benchmarking technique can support organizations in the strategic management of logistics.
5	Hastreiter <i>et al.</i>	Benchmarking is a powerful tool to provide information on the logistics performance of organizations. The use of benchmarking in transport logistics enables a more specific analysis for organizations
6	Wang and Zhang	Logistics benchmarking is a process of knowledge creation, comparing and analyzing business information about other companies with the aim of improving the quality of decision-making in companies.
7	Jolly <i>et al.</i>	Through external benchmarking, it is possible to evaluate the performance of the supply and distribution chain of a production or service sector.
8	Diabat <i>et al.</i>	The management of logistics functions involves decision-making for the complete distribution of goods and provision of services to maximize value and minimize costs and benchmarking can help in this management.
9	Min e Jong	Benchmarking is a continuous quality process by which an organization can assess its internal strengths and weaknesses, benchmark its advantages and those of its main competitors, identify best practices, and incorporate these findings into a strategic action plan aimed at obtaining an adequate position in the market.
10	Johansson and Palsson	Benchmarking is the search for industry best practices that can lead to superior logistics process performance.

Source: prepared by the authors.

Some studies such as those by Diabat *et al.* (2013), Hastreiter *et al.* (2013), Mind and Jong (2006) and Wang and Zhang (2008) used benchmarking as a tool to evaluate logistics performance in relation to management. For example, in the research by Wang and Zhang (2009) the authors examine how logistics performance is affected by the management of technological information using identification and tracking data in their analysis.

In the works of Chan *et al.* (2006), Hastreiter *et al.* (2013), Korpela and Tuominem (1996) and Mind and Jong (2006), the authors use data analysis in conjunction with benchmarking as a way to generate more robust results in relation to mathematical analysis. For example, Chan *et al.* (2006) and Hastreiter *et al.* (2013) use the *Analytical Hierarchy Process* (AHP) as a way to improve the application of benchmarking. AHP is a measurement theory to deal with quantifiable and intangible criteria that has been applied to numerous areas, such as decision theory and conflict resolution and according to the authors is a powerful tool to assist in logistics benchmarking analyses.

Another subject frequently addressed in articles is the service area focused on the logistics process, authors such as Chan *et al.* (2006), Hastreitaer *et al.* (2013), Min and Jong (2006) and Wang and Zhang (2009) used benchmarking to evaluate logistics performance within the area of service provision. For example, in the research by Wang and Zhang (2009) the authors applied benchmarking to evaluate the reverse logistics performance of a service provider in China. Thus showing the importance of this methodology for surveying opportunities for improvement in the Reverse Logistics process.

This item sought to show the patterns and relationships of the researches. To this end, it made an evaluation based on the full reading of the publications in the database, demonstrating that a significant portion of the research is directly related to the application of benchmarking concepts to evaluate the performance of logistics processes in the most varied ways.

3.3 SITUATION OF RESEARCH IN BRAZIL

In addition to the bibliographic survey carried out in journals of high international impact, a search was carried out in the "Scielo" database with the objective of verifying the situation of research on benchmarking and logistics in Brazil. Few studies were found, only five publications in journals, and a summary of these articles is presented in Table 5.

Table 5

Publications on Benchmarking and Logistics in Brazil

No.	Author	Article	Year	Research objective/method
1	Sellitto, M. A.; Mendes, L. W.	Benchmarking the performance of three manufacturing supply chains	2006	Evaluate the performance of three supply chains in manufacturing, through the application of the SCOR (Supply-Chain Operations Reference) model and AHP (Analytical Hierarchy Process) multicriteria measure.
2	Cardoso, J. F.; Casarotto, N. F.	Logistics Benchmarking: Concepts and Applications	2014	To investigate, from the analysis of the literature, the concept of Logistics Benchmarking and its practical applications. It is a theoretical/conceptual study whose focus is the research carried out in books and scientific works published with databases.
3	Machado, A. D.	Benchmarking in Logistics: A brief literature review	2003	To evaluate the use of the Benchmarking method in business logistics, through a review of works that treat Benchmarking as a tool for evaluating the performance of logistics processes.
4	Silveira, J. Q.; Meza, L. A.;	Identification of Benchmarks and Anti-Benchmarks for	2012	To evaluate the performance of Brazilian airlines for the

	Mello, J. C. C. B. S.	airlines using DEA and inverted border models		air transport of passengers and cargo in 2007, after the crisis of the sector. There were 23 companies analyzed by the Data Envelopment Analysis (DEA) method and the inverted border model.
5	Novaes, A. G. N.	Rapid-Transit Efficiency Analysis With the Assurance-Region DEA Method	2001	Verify that metro operators are working efficiently, in technical terms, and with regard to gains in scale. To do so, it used Data Envelopment Analysis (DEA) to evaluate the efficiency and gains in scale of 21 subways in conjunction with Benchmarking.

Source: prepared by the authors

In addition to these publications, there are other scientific and practical works being developed in Brazil. A practical example of work with the application of benchmarking aimed at evaluating the logistics performance of companies is the one carried out by FIESC – Federation of Industries of the State of Santa Catarina, with the Santa Catarina Business Logistics Program. The main objective of the program is to offer industries in Santa Catarina a reference framework of logistics performance by sector containing indicators for logistics benchmarking, thus constituting an important tool to increase business competitiveness.

Although this type of research generates a lot of knowledge and information on the topics, it still lacks a scientific academic review so that it can be published in recognized journals and thus be available for other researchers to enjoy these results. Another example is the research carried out in universities, but which ends up not being submitted to journals for publication. An example is the dissertation of Carvalho (2010), in his research the author proposes a methodology for benchmarking analysis of logistics platforms, being applied in a case in the metropolitan region of Campinas, São Paulo, Brazil.

In addition to dissertations and theses that usually end up not being published in journals, there are also articles published in conference proceedings that also contribute to the development of the themes. Zago *et al.* (2008), present a research that was being developed on benchmarking and evaluation of logistics performance at the Symposium of Excellence in Management and Technology in the state of Rio de Janeiro in Brazil. The study presented benchmarking indicators of logistics activities that can be adopted by organizations that exercise or make use of logistics. For this purpose, bibliographic research was carried out associated with an exploratory and descriptive study. Through this study, it was possible

to identify, among other aspects, the indicators and logistics processes that most influence the organization's performance in the market.

This item presented a brief overview of the situation of research in Brazil. To this end, it made an evaluation based on the full reading of the publications in the database, demonstrating that a significant portion of the research is directly related to the application of benchmarking concepts to evaluate the performance of logistics processes. However, as can be observed, the themes are still incipient in relation to their maturity and the number of publications in journals in Brazil. A positive point is that the themes have been worked on in various spheres of knowledge such as companies, universities and industry support institutions such as FIESC, generating a positive forecast for the coming years in relation to the advancement of knowledge in this area.

4 CONCLUSION

In the increasingly turbulent environment, strategic logistics management has become a necessity to achieve competitive advantage. A method that has been increasingly used as a support instrument to improve this management is benchmarking. This can be defined as a continuous process of measuring the current state of business operations by comparing them to *best-in-class* operations. The application of the knowledge gained from benchmarking study provides a basis for building operational plans to meet and exceed industry best practices.

In view of the current importance of benchmarking for the industrial and academic environment, this article surveyed the current situation of research on the application of benchmarking to evaluate logistics performance in organizations. To this end, a bibliographic portfolio was built and later a systematic review of it. This construction comprised the analysis of 39 raw articles, reducing to a total of 11 articles aligned with the research themes.

The bibliometrics of the portfolio showed that international journals began their publications related to benchmarking and logistics in 1996, with their peak between 2006 and 2009, in this period the concentration of publications exceeded 50%. The most referenced authors were Min and Jong (2006), Korpela and Tuominen (1996) and Chan *et al.* (2006) totaling more than 77% of the total citations in the portfolio. The journal with the greatest relevance in relation to the number of publications on the subject was "*Benchmarking an International Journal*", which had five publications.

As for the most discussed subjects in the surveys, there is a concentration of articles that address the application of benchmarking in relation to the management of logistics processes from the management of the distribution of goods, resources, financial and

information to the strategic management of logistics, with 55% of the articles addressing these topics. Another very expressive issue is related to the treatment of data and information generated in benchmarking, that is, the *Analytical Hierarchy Process* or *Decision Support Systems* or *Interpretive Structural Modeling* or *Data Analysis was used as a support tool* in 45% of the articles. In addition to the two main subjects, a third approach related to the type of logistics service also occurred in 36% of the published articles.

Based on the results presented, it is concluded that the field of knowledge on topics related to benchmarking and logistics is still in full development, because the applications were limited to only a few publications and there are potential research in progress, this is clear if we observe the situation in Brazil where there are few articles published in journals, however, there is a lot of knowledge being developed in universities and bodies linked to the industrial sector, as is the case of FIESC (Industrial Federation of the State of Santa Catarina), where for some years the logistics program has been developed together with state organizations to improve performance in this area.

The approach proposed in the article allowed us to show the importance of benchmarking for the evaluation of logistics performance as a continuous process. Where customers should be periodically interviewed in order to capture any changes in their requirements and in their perceptions of logistics. In addition, the diagnoses and the definition of the necessary improvements must be maintained and constantly updated.

Although the results and conclusions are limited to the database that was selected, the ideas presented in the article contribute to the development of the field of knowledge and can serve as inspiration in the development of new knowledge for both academics and professionals in the field of logistics.

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