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URBAN MOBILITY AND LOGISTICS PLATFORMS IN THE INTERMEDIATE CITIES OF THE AMERICAS: A SYSTEMATIC REVIEW OF THE SCIENTIFIC LITERATURE

Movilidad urbana y plataformas logísticas en las ciudades intermedias de américa: una revisión sistemática de la literatura científica

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ABSTRACT

Logistics are experiencing a growth in its development, which demands the use of adequate structures and larger transport units, which also represents an indirect impact on the environment due to fuel consumption and the use of packaging. Introduction: To identify trends in urban mobility and logistics platforms in the intermediate cities of the Americas in the years 2011-2021. Methodology: The synthetic method and the PRISMA method were used to compile, interpret and select the scientific articles that were used for the construction of the systematic review. The research sample is composed of scientific articles published in Latin America between 2011 and 2021 that meet the inclusion criteria of scientific rigour of the research. Results: Due to the centralisation of commercial operations in Latin American metropolises, vehicle congestion is generated, creating delays and cost overruns in the logistics chain; this congestion generates greater demand for the use of vehicles and therefore a greater spectrum of pollution produced by fuels. Discussion: The trend of developing logistics platforms in the intermediate cities of the Americas in the last 10 years seeks to generate sustainable development because decentralising operations could address the daily problems of urban areas, such as noise, pollution and costs generated in a metropolis.

Palabras clave:
movilidad urbana, plataformas logísticas, ciudades intermedias, logística urbana, desarrollo sostenible.

RESUMEN

La logística está experimentando un crecimiento en su desarrollo por lo que demanda el uso de estructuras adecuadas y mayores unidades de transporte, lo que además representa un impacto indirecto en el medioambiente por el consumo de combustibles y el uso de empaques. Introducción: Conocer las tendencias de movilidad urbana y plataformas logísticas en las ciudades intermedias de América en los años 2011-2021. Metodología: Se empleó el método sintético y el método PRISMA para realizar la recopilación, interpretación y selección de los artículos científicos que fueron utilizados para la construcción de la revisión sistemática, la muestra de la investigación está compuesta por artículos científicos publicados en América Latina entre los años 2011 y 2021 que

	cumplan con los criterios de inclusión de rigor científico de la investigación. Resultados: Por la centralización de las operaciones comerciales en las metrópolis de América Latina se genera el congestionamiento vehicular creando demora y sobrecostes en la cadena logística, este congestionamiento genera la mayor demanda de uso de vehículos y por ende un mayor espectro de contaminación producida por los combustibles. Discusión: La tendencia del desarrollo de plataformas logísticas en las ciudades intermedias de América en los últimos 10 años busca generar desarrollo sostenible porque al descentralizar las operaciones se podría hacer frente a los problemas cotidianos de las zonas urbanas, como el ruido, la contaminación y los costes generados en una metrópoli.

Introduction

Urban mobility is the concept given to the human practice of moving from a point of origin to a destination for the purpose of carrying out daily activities and under this concept coexists transportation complementing human movement. As a reference, in the early 1980s, industries began to occupy spaces far from the urban sprawl, which accelerated the construction of urban expressways; however, most transportation did not evolve at the same pace as this progress. In these urban expressways there are no preferential lanes for public transportation and this is mixed with private transportation evidencing the uncivic use of the roads by breaking traffic rules and ignoring regulatory tools when activities such as improper overtaking, lane invasion and violation of established speed limits are carried out, generating vehicular congestion and loss of time (Obregón and Betanzo, 2015).

Fernández (2018) explains that a logistics platform is the set of facilities, material resources, human resources and information and management systems that allow the operation of each of them in an integral manner in the same space to be able to generate or assist international trade operations, logistics platforms seek to fulfill the objective of being strategic, useful and transcendental locations for logistics activities of an international nature and that at the same time have an impact on the generation of territorial commercial planning.

Fernandez (2018) determines the types of logistics platforms that exist are as follows:

- Logistics Distribution Platform (PLADIS).
- Border Support Logistics Platform (PLF).
- Cluster Support Logistics Platform (PLC).
- Port Logistics Activities Zone (ZAL).
- Dry Ports (Bonded Warehouses).
- Agrocentro Logístico (AGROLOG).

Llop et al. (2019) explain that the term intermediate city is used to refer to urban systems differentiated from the metropolitan dimension, thus transcending the scope of spatial, demographic size and the analysis of external factors such as political, economic, sociocultural, technological, ecological and legal study.

An intermediate city, beyond its demographic relevance, has the capacity to articulate and cohere the urban system and the urban-rural connection links; derived from its scale, it has the capacity to outline and achieve the implementation of value-added strategies such as the use of fewer resources than large cities to position itself in a regional, national and international commercial scenario; derived from the impact of globalization, an intermediate city is considered a demolishing element of the *status quo* because of its controversy with the hierarchies of the traditional urban system by opening new operational horizons of territorial cooperation (Llop et al., 2019).

The combination of urban mobility and logistics platforms occurs in a transdisciplinary scenario that seeks to achieve the reduction of time and space losses in the commercial operation, with the aim of optimizing the product, the client, the place and the time needed to develop an international commercial operation. From an international business perspective, a logistics platform encompasses concepts such as physical distribution, warehousing, transportation, management indicators and information systems that are important aspects for an optimal global logistics process (Salazar, 2012).

The justification for this research lies in the need to expand knowledge on the holistic and transdisciplinary concept of urban mobility and its incidence on the establishment of logistics platforms in the intermediate cities of the Americas, due to the great impact they can create on international business by becoming an active and strategic territorial node with respect to commercial activities. Many of the intermediate cities in the Americas are not economic generators at scale, but they are concentrators of key services such as health,

education and commerce for the rural populations in their *hinterland*. The importance of the study of intermediate cities lies in the fact that they are the step prior to migration to a metropolis.

Based on the above, the following question arises for the development of the systematic review of the literature: what are the trends in urban mobility for the development of logistics platforms in the intermediate cities of the Americas in the last 10 years? Following this question, the objective of the systematic review is to know the trends in urban mobility for the development of logistics platforms in intermediate cities in the Americas in the last 10 years based on the study of scientific articles.

Method

Design

The present research is a systematic review of the scientific literature in which we seek to develop an understanding, in synthesis, of the theoretical evidence found in repositories on trends in urban mobility and logistics platforms in intermediate cities in the Americas. In this type of research, a review of a large volume of quantitative and qualitative scientific articles is carried out, which provides different theoretical perspectives on the research topic.

Participants

The scientific articles to develop the systematic literature review were searched and obtained through relevant research repositories such as Scielo, Dialnet, Researchgate and Redalyc. The search for scientific information in a systematic review of the literature is one of the fundamental stages for the development of the research because it is necessary to know the content, the documentary typology, the tools and the results obtained in order to be able to analyze the study.

Data Analysis

For the search of the scientific articles in these scientific repositories, keywords related to the research topic such as urban mobility, logistics platforms and intermediate cities will be used, however, technical words related to the research will also be used, it is also necessary to use the keywords in other languages in order to have access to more information from America in general.

Due to the transdisciplinary nature of this systematic review, we will search for key words in Spanish, English, French and Portuguese because we will be working with the American continent and probably due to the Spanish terminology, we will not be able to find scientific articles developed in countries such as the United States, Canada or Brazil because of the language difference. Initially, the information will not be discriminated by time period; all the information found will be compiled.

Table 1

Keywords in Spanish and other languages for the search of studies

Keyword	English	French	Portuguese
Urban Mobility	Urban mobility	Urban mobility	Urban mobility
Logistics Platforms	Logistics Platforms	Logistical forms	Logistics platforms
Urban Logistics	Urban Logistics	Urban logistics	Urban Logistics
Intermediate Cities	Intermediate Cities	Intermediate villages	Intermediary cities
Logistics Planning	Logistics Planning	Logistics planning	Logistics Planning

Note. The grouping of the keywords in Spanish and their respective translations is presented (Prepared by the authors, 2021).

The process of classification of the scientific articles obtained for the development of the systematic review of the literature will follow the worked database that groups all the researches by their generic criteria in order to subsequently carry out an evaluation for the inclusion of the scientific articles following the parameters defined in the inclusion and exclusion criteria. In this third stage we will classify the research articles by country.

Table 2

Inclusion and exclusion criteria for scientific articles

Inclusion criteria	Exclusion criteria
▪ Scientific articles hosted in the following repositories: Scielo, Dialnet, Redalyc, Researchgate and Elsevier. ▪ Scientific articles in the 2011 - 2021 time period. ▪ Scientific articles with correlational information between urban mobility and logistics platforms in intermediate cities. ▪ Scientific articles that have developed their research in the continental context of the Americas.	▪ Scientific articles or information scattered in other web hosts. ▪ Old scientific articles published before 2011. ▪ Discrimination by type of document, for example, theses and opinion articles. ▪ Scientific articles whose research context is other geographical areas outside the Americas.

Note. This table groups the criteria under which the information for the systematic review of the literature will be discriminated (Own elaboration, 2021).

Instrument

In order to develop an adequate selection of relevant articles for the optimal development of the systematic literature review, a documentary evaluation matrix has been designed in which the scientific articles will be evaluated in a scrupulous and scientific manner according to the criteria of inclusion, exclusion, reliability, documentary typology, context developed, time period established for the review, traceability and transferability of the research.

Table 3
Matrix for the evaluation of scientific articles

No.	do you have urban mobility data? (0-1)	do you have data on logistics platforms? (0-1)	do you have intermediate cities in the Americas as a context? (0-1)	did it take place between 2011 and 2021? (0-1)	were urban mobility and logistics platforms studied? (0-1)	TOTAL
1	1	1	0	1	1	4
2	1	1	1	1	1	5
3	1	1	0	0	1	3
4	1	1	1	1	1	5
5	1	1	0	1	1	4
6	1	1	0	1	1	4
7	1	1	0	1	1	4
8	1	1	1	1	1	5
9	1	1	1	1	1	5
10	1	1	1	1	1	5
11	1	1	1	1	1	5
12	1	1	0	1	1	4
13	1	1	1	1	1	5
14	1	0	0	1	0	2
15	1	0	1	1	0	3
16	1	1	1	1	1	5
17	1	1	0	1	1	4
18	1	1	0	1	1	4
19	1	1	1	1	1	5
20	1	1	1	1	1	5
21	1	1	0	1	1	4
22	1	1	0	1	1	4
23	1	1	1	1	1	5
24	1	0	1	1	0	3
25	1	1	0	1	1	4
26	1	1	1	1	1	5
27	0	0	0	1	0	1
28	1	1	1	1	1	5
29	1	1	1	1	1	5
30	1	1	1	1	1	5
31	1	0	1	1	0	3
32	1	1	1	1	1	5
33	1	1	1	1	1	5
34	1	1	1	1	1	5
35	1	1	1	1	1	5
36	1	1	1	1	1	5
37	1	1	1	1	1	5

38	1	1	0	1	1	4
39	1	1	1	1	1	5
40	1	1	0	1	1	4

Note. This table includes an evaluation for analyzing the scientific articles collected; the criterion for them to be included in the systematic review of the literature is to obtain the maximum 5 points (Prepared by the authors, 2021).

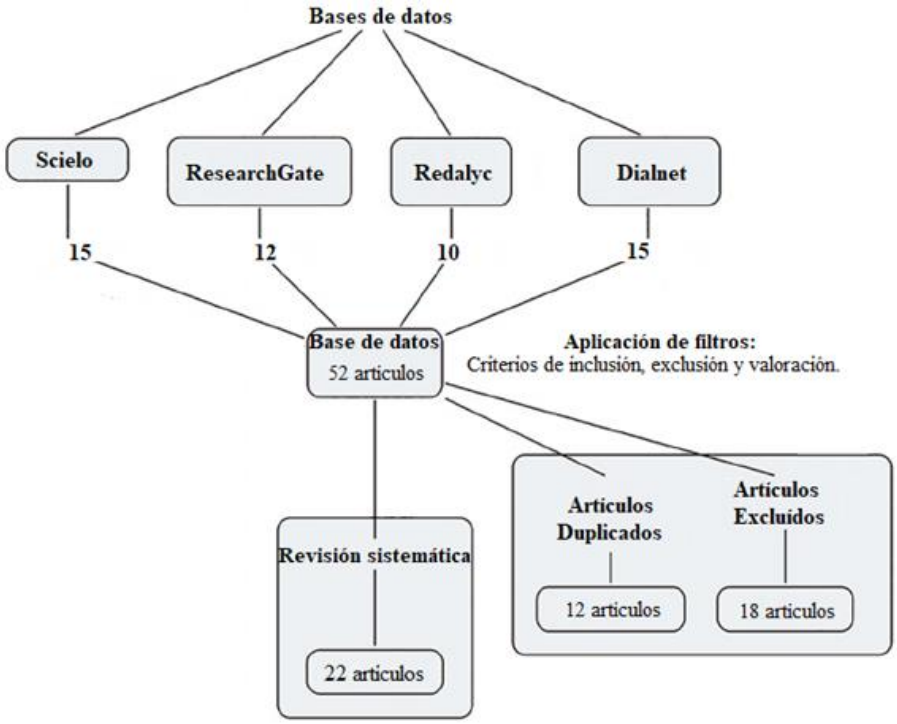
The matrix presented in Table 3 responds to the critical appraisal with which the research articles that will be analyzed in the systematic literature review will be selected. Forty scientific articles were collected from the Dialnet, Scielo, Redalyc and Researchgate repositories, searching through keywords such as urban logistics, urban mobility, logistics platforms and their translations into English, Portuguese and French. After applying the assessment criteria, 22 scientific articles were selected for the systematic review of the literature.

Results

For the selection of the scientific articles used in the systematic review of the literature, the following flow chart was used to obtain the 22 articles included in the systematic review.

Figure 1

Flowchart of item identification, selection and inclusion



Note. Figure 1 shows the flow chart used by the authors for the development of the systematic literature review (Own elaboration, 2021).

In Table 3, an evaluation was made of the scientific articles collected to choose those that will be addressed in the systematic review. Thus, after having made an assessment of the characteristics of the study approach through the research variables, the context, the year and the correlation of the variables, it was decided that the systematic review will be conducted on the basis of the following articles with the following characteristics:

Table 4

Articles included in the systematic review

Item number	Title of Scientific Article	Repository	Language	Year
1	Urban mobility of the population in the city of Encarnación, Paraguay. Urban development and environmental management	Scielo	Spanish	2021
2	Sustainable Urban Mobility and Logistics: Huancayo Case	ResearchGate	Spanish	2016
3	Analysis of urban mobility in a medium-sized Mexican city, case study: Santiago de Querétaro	Scielo	Spanish	2015
4	Analysis and proposal of sustainable urban mobility: Accessibility to the cultural heritage of the city of Guanajuato	ResearchGate	English	2020
5	Analysis of accessibility from collection and delivery points: Towards the sustainability of the e-commerce delivery	Scielo	English	2019
6	Are Brazilian cities ready to develop an efficient urban freight mobility plan?	Scielo	English	2018
7	Logistic behaviors in the last mile distribution of food products in Villavicencio, Colombia	Scielo	Spanish	2014
8	Challenges for freight mobility in high congestion areas	Dialnet	Spanish	2016
9	Distribution in Large Urban Centers: Mobility Disabilities Generating Complex Logistics	ResearchGate	English	2018
10	The capital of daily urban mobility: mobility on the outskirts of Metropolitan Lima	Scielo	Spanish	2020
11	Logistical factors affecting the increased competitiveness of SMEs: a literature review	Dialnet	Spanish	2016
12	Urban mobility: Dimensions and challenges	Scielo	Spanish	2018
13	Logistics models applied to Urban Distribution of	Scielo	Spanish	2017

	Goods.			
14	Business Logistics In Production, Commercialization And Service Companies In Portoviejo	Dialnet	Spanish	2014
15	Urban logistics and territorial planning: A political approach	Redalyc	Portuguese	2016
16	Urban mobility: A Paulistano challenge	Scielo	Portuguese	2013
17	Logistics management model for small and medium-sized enterprises in Mexico	ResearchGate	Spanish	2015
18	Strategic Approaches to Urban Logistics: University-State-Business Relationship Perspective	ResearchGate	Spanish	2013
19	Logistic Platforms: an approach to typologies and characteristics through a systematic review	Scielo	Portuguese	2014
20	Public policies in urban logistics. Collective construction of guidelines for logistics in Bogota-Colombia	Scielo	Spanish	2018
21	Current logistics and supply chain challenges	Scielo	Spanish	2021
22	Urban transport and mobility, towards a sustainable and competitive urban dynamic	Redalyc	Spanish	2014

Note. Table 4 shows the articles that will be taken into account for the systematic review of the literature, as well as their repositories, languages and year of publication (Prepared by the authors, 2021).

The characteristics presented in Table 4 of the 22 scientific articles chosen for the development of the systematic review allow the clear identification of studies that address the study of urban mobility and logistics platforms. With this information, data triangulation was carried out to identify the objectives set, the results found and the conclusions developed that allow the identification of urban mobility trends in the intermediate cities of the Americas in the last 10 years with the purpose of being able to elaborate the discussion and conclusions of the systematic review.

Table 5

Main findings of the selected scientific articles

Title and author	Findings
Title: Movilidad urbana de la población en la ciudad de Encarnación Paraguay.	**Objective:** study the factors that influence the flow of vehicular movement in terms of accessibility to the downtown area. **Results:** the

Desarrollo urbano y gestión ambiental **Author:** Fernández, A. (2021).	needs of the population are not being met in the neighborhoods under study, and that greater displacements are required to satisfy them. **Conclusion:** the factors that influence mobility are predominantly location and dependence on services in other areas, in addition to taking measures to favor sustainable urban mobility by promoting the use of clean technologies and improving the management of the transportation system.
Title: Movilidad y Logística Urbana Sostenible: Caso Huancayo **Author:** Regalado, G. (2016).	**Objective:** achieve economic and business feasibility through the adoption of sustainable urban logistics solutions. **Results:** Mobility Logistics is a technological tool applied basically to the movement of people, although its operability also favors the distribution of goods. **Conclusion:** the problems that urban logistics seeks to solve are congestion caused by public and private transport, pollution levels due to congestion and heavy traffic, distribution of goods in unsuitable urban environments such as historic centers, and the use of traffic lanes for loading and unloading in the absence of adequate bays.
Title: Análisis de la movilidad urbana de una ciudad media mexicana, caso de estudio: Santiago de Querétaro **Authors:** Obregón, S. and Betanzo, E. (2015).	**Objective:** analyze current commuting patterns in the Querétaro Conurbation Zone (ZCQ) based on an origin-destination survey. **Results:** the patterns, motives and preferences in the existing means of transportation were found; in this respect, income is a significant factor in the choice of means of transportation. **Conclusion:** the correlation between urban spatial structure and transportation is reflected in travel time and travel distance. A major deterrent for car users is the travel time by public transport.
Title: Analysis and proposal of sustainable urban mobility: Accessibility to the cultural heritage of the city of Guanajuato **Authors:** Colmenero, F. and Cruz, A. (2020).	**Objective:** analyze the restructuring of public transportation in the city of Guanajuato. **Results:** the Urban Sustainability Index (ISU) should be carried out to understand as a degree reached by the city to maintain the balance of all systems present in urban life. **Conclusion:** urban mobility allows the improvement and development of infrastructure with a set of economically profitable actions, and proposes that short and medium-term actions contribute to a long-term vision and strategy.

Title: Analysis of accessibility from collection and delivery points: Towards the sustainability of the e-commerce delivery **Authors:** Kelli, L., Magalhães, R., Muzzi, L., Caliari, I. and Leite, C. (2019).	**Objective:** analyze the accessibility of pick-up and delivery points located in commercial establishments (drugstores, gas stations, post offices, supermarkets and malls) considered most attractive by e-consumers to receive this delivery solution. **Results:** there are differences in accessibility levels between collection and delivery points, highlighting the important associations between economic activities, land use patterns and transportation for planning sustainable cities. **Conclusion:** Pick-up and delivery points is an alternative to reduce externalities and cost overruns for companies with recurring home delivery failures, moreover, a large number of home deliveries means more freight traffic and therefore more pollution and congestion.
Title: Are Brazilian cities ready to develop an efficient urban freight mobility plan? **Authors:** Dias, J., Sobanski, G., Ramos, J., Kelli, L. and Vidal, J. (2018).	**Objective:** determine whether Brazilian cities are ready to design an urban mobility plan for the distribution of goods. **Results:** "restrictions" are the solutions most adopted by Brazilian authorities, including the representative sample of cities in the state of São Paulo with more than 250,000 inhabitants. **Conclusions:** Brazilian cities are not prepared to develop an efficient urban transportation plan, as public managers seem to be unaware of the urban logistics demands within their cities or have neglected aspects related to urban freight transportation.
Title: Comportamientos logísticos en la distribución de última milla de productos alimenticios en Villavicencio, Colombia **Authors:** Adarme, W., Arango, M. and Cárdenas, I. (2014).	**Objective:** the main trends and behavior of household purchases, specifically in the purchase of food, through the use of primary sources of information and statistical tools. **Results:** At the strategic level, the need was identified to design facilities such as logistics platforms and urban consolidation centers and tactical/operational facilities such as vehicle restrictions, parking and coordination mechanisms. **Conclusion:** there are trends related to the place of purchase with respect to the type of products purchased, the vehicle used to make the purchase and its frequency.
Title: Desafíos para la movilidad de carga en zonas de alta congestión **Authors:** Merchán, D. and Blanco, E. (2016).	**Objective:** analyze the challenges of freight mobility, with a particular focus on high-density and congested areas. **Results:** There is a gap in urban planning with respect to freight transportation and a methodology, based on

	metrics and data visualization tools, is introduced to support decision-making processes at the public policy level. **Conclusion:** it is essential to ensure the articulation of the needs and challenges of the urban logistics system in the city's comprehensive mobility plans, as one of the pillars of the transportation system, such as Santiago de Chile or Mexico City.
Title: Distribution in Large Urban Centers: Mobility Disabilities Generating Complex Logistics **Authors:** Alves, K. and Silveira, R. (2018).	**Objective:** analyze how the literature has addressed the impact of deficiencies in urban mobility on logistics capabilities. **Results:** The deficiencies in urban mobility have led to the dispersion of economic activities throughout the environment, which implies an increase in the fleet of small vehicles. **Conclusion:** these urban mobility challenges are the result of the lack of planning in large Brazilian cities and insufficient resources.
Title: El capital de la movilidad urbana cotidiana: motilidad en la periferia de Lima Metropolitana **Author:** Regalado, G. (2020)	**Objective:** study the social practices of travel and their direct relationship with the motility capital held by an individual, which allows him to exercise his itinerant *habitus*. **Results:** the population of the area, on a daily basis, basically moves around in search of economic sustenance; they develop informal commerce in inadequate urban spaces, but conveniently located next to formal businesses, and focus on the sale of basic necessities and second-hand products, especially clothing. **Conclusion:** adequate conditions of accessibility to the immediate urban environment and to urban mobility networks, as well as the presence of skills or competencies in a better state of development, would grant a greater capacity for action and would provide a state of appropriation with greater autonomy that would allow for movements with total freedom, convenience, safety, comfort and speed.
Title: Factores logísticos que inciden en el aumento de la competitividad de las PyMES: una revisión de literatura **Authors:** Bailón, T., Romero, R., Alvarado, A., Romero, J. and Guerrero, J. (2015).	**Objective:** identify the Logistics Management Models and their factors that contribute to the increased competitiveness of SMEs. **Results:** Within the conceptualization of urban mobility, we can understand that it refers to the movements made by people regardless of the type of transportation, as well as urban logistics as the location of warehouses, surveillance systems and market control, policies and

	efficient storage to achieve an efficient distribution. **Conclusion:** The use of the SCOR (Supply Chain Council of North America) model is recommended as a reference for the logistics models used by SMEs.
Title: La movilidad urbana: Dimensiones y desafíos **Author:** Cruz, F. (2018).	**Objective:** present, from a theoretical and applied perspective, urban mobility, taking into account metropolitan development, sustainability and management. **Results:** the clear need to strengthen a Metropolitan Mobility and Transportation Information System was highlighted and explains the need to understand the effects of information and communication technologies. **Conclusion:** it is essential to articulate local transportation in peripheral areas with metropolitan systems and encourage the generation of local labor markets that help reduce the number of long trips for work purposes.
Title: Modelos logísticos aplicados en la Distribución Urbana de Mercancías. **Authors:** Arango, M., Gómez, C., & Serna, C. (2017).	**Objective:** Classify the logistics models that have been developed to solve the problems of integration, coordination, sustainability and mobility that arise in the urban distribution of goods (DUM). **Results:** Due to population growth and increased traffic congestion in large cities, the search for improvement and optimization of processes in the distribution systems of goods and services in urban areas has increased in recent years. **Conclusion:** The problems of urban distribution of goods can be divided into four categories: integration, coordination, mobility and sustainability. The first two have a direct impact on the main stakeholders and solutions are sought to improve their performance, while the other two have an impact on the community at large.
Title: Logística Empresarial En Empresas De Producción, Comercialización Y De Servicios En Portoviejo **Author:** Verduga, A. (2014).	**Objective:** know the organizational culture, the processes of logistics for companies and the wireless technology they implement in terms of operations, and their strategies to achieve effectiveness in logistics processes. **Results:** the supply chain must be understood as a network of links that cannot be separated into production criteria and then distributed to the final consumer. **Conclusion:** urban mobility and logistics platforms impact the growth of global and regional channels, accelerated technological

	innovation, integrated logistics and organizational speed.
Title: Logística urbana e planejamento territorial: Uma abordagem política **Authors:** De Oliveira, F. and Rodrigues, W. (2016).	**Objective:** analyze the concept of urban logistics from a geographic and business perspective, understanding its performance and limitations. **Results:** the complexity and high competitiveness of distribution services that cause serious problems of accessibility to the city space and its urban activities (work, leisure, shopping, etc.), noise pollution, accidents, stress, among others. **Conclusion:** the situation of urban logistics in Brazilian cities is far from the concept of Supply Chain Management or even from the requirements of a City Logistics, urban centers are focused on solving problems that hinder the operation of public and private transportation of people.
Title: Mobilidade urbana: Um desafio paulistano **Author:** Wilem, J. (2013).	**Objective:** describe urban mobility and its relationship with the distribution of goods in Sao Paulo. **Results:** The breadth of the urban mobility issue, as well as the complexity of the issues involved, define the problem as crucial within city planning. **Conclusion:** In the absence of adequate urban mobility planning and the establishment of logistics platforms, in the last ten years there has been an increase of 872 vehicles per day, the growth of this vehicle fleet is parallel to the increase in traffic jams in the city, the second most important indicator being the presence of 234,803 trucks in Sao Paulo.
Title: Modelo de gestión logística para pequeñas y medianas empresas en México **Authors:** Cano, P., Orue, F., Martínez, J., Mayett, Y. & López, G. (2015).	**Objective:** describe a logistics management model for small and medium-sized companies in Mexico. **Results:** Logistics activities are the driving force for new investments in infrastructure, so integrated logistics platforms are a way of linking supply and demand at the corporate and national levels. **Conclusion:** Taking this model as a reference could allow managers of small and medium-sized companies in Mexico to improve the logistics performance of the supply chain, as well as to improve their competitiveness and face the challenges of urban mobility that they may face.
Title: Planteamientos Estratégicos para la Logística Urbana: Perspectiva de la	**Objective:** describe the results obtained in the forum Impact of research on urban logistics: perspective of the University-State-Business

Relación Universidad-Estado-Empresa. **Authors:** Suero, F., Orozco, E. & Meza, K. (2013).	relationship. **Results:** we suggest the main and most used strategies that have been effective in recent years, and some that could be effective in the future, such as: Crossdocking, synchronization, creation of distribution centers, ICT, vehicle routing, among others in intermediate cities. **Conclusion:** the problems present in urban logistics are not linked to a universal solution, but require a set of closely related strategies to address the issues.
Title: Plataformas Logísticas: uma abordagem sobre as tipologias e características através de uma revisão sistemática. **Authors:** Silva, R., Pereira, E., Dos Santos, L. & Lima, O. (2014).	**Objective:** analyze the main typologies and characteristics of logistics platforms in Brazilian cities. **Results:** the use of logistics platforms emerges as an alternative in the face of contemporary challenges, where a logistics redesign is necessary to meet the demands and the transposition of current restrictions imposed on the distribution of products in urban centers. **Conclusion:** Organizations are faced with the need to adapt quickly to changes, whether these are related to their supply channels or even their distribution networks.
Title: Políticas públicas en logística urbana. Construcción colectiva de lineamientos para la logística de Bogotá-Colombia. **Authors:** Rojas, L., Castrellón, J., & Adarme, W. (2018).	**Objective:** present the methodology used to define the guidelines for the Bogotá D.C. district urban logistics system. **Results:** the coordination of the flow of products, information, energy, money, not only within the city, but also in the surrounding region, generated by regional, national and international trade, whose impacts are directly reflected in the productivity, economic development and mobility of the city. **Conclusion:** public policies towards the promotion of specialized logistics services must contemplate integral solutions around the mobility of products and people, habitability and sustainability.
Title: Retos actuales de la logística y la cadena de suministro **Authors:** Sánchez, Y., Pérez, J., Sangroni, N., Cruz, C., & Medina, Y. (2021).	**Objective:** analyze the challenges of logistics and the supply chain post Covid-19. **Results:** Supply chains in recent decades have been characterized by massive globalization, worldwide sourcing and the configuration of increasingly complex supply networks. This has given companies competitive advantages by reducing manufacturing costs by benefiting from the resources, skills and talents that each part of the world has to offer (supply, manufacturing,

	design), but it has also created a global interdependence that poses many challenges for the future. **Conclusion:** logistics as a management activity of operations with resources, their organization and optimization in terms of customer welfare has taken a leading role at this stage, which requires innovative solutions in this area to maintain the high level of service provided and perceived to customers.
Title: Transporte urbano y movilidad, hacia una dinámica urbana sustentable y competitiva. **Authors:** Jiménez, J., De Hoyos, J. & Álvarez, A. (2014).	**Objective:** study the relationships between urban transport, as an object of study, and land uses, as the system of spaces adapted for urban activities. **Results:** the relationship schemes between activities and individuals have undergone quantitative and qualitative changes in which telecommunications and information technology modify spatial relationships and imprint a new dynamic on the functioning of the city. **Conclusion:** globalization has imposed new logics for the occupation of space in cities; the search for better schemes to revitalize depressed areas in order to maintain urban spaces in competitive and profitable conditions has led the State to relax regulations on land use and thus encourage the renovation of productive spaces.

Note. Table 5 presents the main findings made by the authors of the 22 scientific articles of the systematic review of the literature (Own elaboration, 2021).

Discussion and Conclusions

Discussion

Fernández (2021) details that urban mobility is defined as the movement of people in order to obtain a good or service. In addition, it defines that the factors with the greatest influence on urban mobility are location and service dependence. In his research, the author observed that people in the intermediate city of Encarnación in Paraguay, South America, make longer trips and frequently use vehicles, which in addition to causing vehicle congestion also contributes to environmental pollution.

In this scientific article we understand the importance of the environmental impact generated in urban mobility from congestion and vehicular traffic, it also places us in a rational scenario to understand that people develop longer trips according to the obligation of their needs, then, it is understood deductively that the use of the vehicle fleet in society is proportionally direct to the distance of the trips made.

Regalado (2016) in his scientific article addresses the study of mobility and sustainable urban logistics in the intermediate city of Huancayo, Peru, in South America, for which he highlights that, Businesses should seek economic feasibility through the adoption of sustainable urban logistics solutions. Therefore, by applying this idea to human movement and the distribution of goods, we seek to alleviate the problem faced by the logistics chain, which is the congestion of private and public transportation.

It is understood in this scientific article that the commercial logistics chain of the companies sees its operational capacity diminished when faced with traffic and congestion of public and private transport, so we could infer that the author recommends that the transport and distribution of goods should enjoy exclusive urban sections for transit, parking, loading and unloading of their products.

Obregón and Betanzo (2015) developed their research in the intermediate city of Santiago de Querétaro, Mexico, where they found that it is congested with vehicular traffic due to the constant mobilization of people who choose to use their cars rather than public transportation, identifying that, the demand driven by the private vehicle makes necessary a greater road capacity, which affects the sustainability of cities in terms of mobility and environmental quality.

As in the previous scientific article, the authors identified that one of the factors that prevent intermediate cities from enjoying balanced and satisfactory urban mobility is vehicular congestion caused by private transportation -in this case- but it can be assumed that public transportation also has an impact on the congestion of vehicular traffic routes. We can understand that congestion and vehicular traffic are factors that directly attack, theoretically, the concept of efficient urban mobility and, practically, the distribution of goods, which is an important activity within the framework of logistics operations.

Dias et al. (2018) in their research on the ability to implement a mobility and urban logistics plan in Brazilian cities in South America, define that, the application of restrictions on vehicular traffic routes are the measures most adopted by the authorities in Brazilian cities, however, defines that Brazilian cities are not prepared for the implementation of a mobility and urban logistics plan because the competent authorities of these decisions are unaware of the demands of urban logistics in their cities.

From this research we can understand that, despite the fact that Brazil is one of the most influential countries in the South American region, it has not been able to implement an adequate urban mobility and logistics management because it is unaware of the capacities that should be taken advantage of in the intermediate cities it possesses, which allows us to highlight the importance that a good urban mobility and logistics planning is accompanied by the real identification of the potentials and needs of the intermediate cities.

Rojas et al. (2018) identified that, the creation of public policies for the city's freight logistics was a complicated challenge that required the participation and analysis of all stakeholders, which involved the management of a large amount of data. The results from the perspective of various stakeholders show that logistics is crucial for the planning and sustainable development of urban areas, which have traditionally been governed by passenger transport plans without including or harmonizing freight transport.

This scientific article shows that the creation of a logistics platform not only seeks to improve land use planning, but also to generate added value to the supply chain, and could improve the quality of life of the people living in the vicinity of the logistics platform, which would provide them with a wide range of goods and services without having to travel to a metropolis to purchase them.

Silva et al. (2014) explain in their research that logistics platforms are an alternative for the current challenges of the logistics chain in which a logistics redesign is needed to be able to achieve the satisfaction of the demand and the overcoming of some restrictions, a logistics platform is able to respond dynamically and efficiently to the different levels of the supply chain, highlights the importance of the creation of logistics platforms as means that allow the improvement of the quality of life of its hinterland.

This scientific article presents certain similarities with the previous scientific article by highlighting that a logistics platform becomes a dynamic tool that allows companies to exploit

their resources to the maximum in the optimization of the logistics chain and that people within a close radius of access to the logistics platform can enjoy quality goods and services.

Jiménez, De Hoyos and Álvarez (2014) in their scientific article establish that, through an adequate study and reformulation of the urban mobility system in cities, it is possible to take advantage of the new logics of occupation of cities imposed by the advance of globalization, this purpose seeks to achieve that, depressed urban areas can become strategic nodes before the adequate exploitation of spaces.

These scopes have shown that the concept used to describe depressed urban areas is used to refer to rural areas, specifically, agrarian areas, technologically backward, subjected to a constant loss of resources, which have been drained by other more developed, industrialized and urban areas in their geography.

Conclusions

It was learned that urban mobility in the intermediate cities of the Americas in the last 10 years has been applied mostly as restrictions on vehicular traffic lanes that limit public and private transportation with the purpose of favoring agile displacement as has been seen in the cases explained in Santiago de Querétaro, La Serena and Sao Paulo; it was learned that one of the aggravating factors in the lack of an adequate urban mobility index is the congestion and vehicular traffic that prevents adequate transit to meet the needs of people who are involved in a moderately long trip to obtain goods or services.

It was learned that the concept of logistics platform does not only include a strictly functional dimension of the business area, in fact, its variety of dimensions makes it dynamic, adopting different forms depending on the configuration of these dimensions such as its functionality with respect to land use planning and the improvement of goods and services that it can make available to its hinterland through the reduction of negative externalities to promote an attractive investment mechanism.

The trend in the intermediate cities of the Americas in the last 10 years has been to seek the development of logistics platforms that serve as a specialized area with the necessary infrastructure and services to achieve trade efficiency and generate added value, with the purpose of reducing the high cost and pollution of the last mile, which is a process of the logistics chain; the main objective of the application of urban mobility and logistics platforms is sustainable development, therefore, research has been developed in intermediate cities because they could address the daily problems of metropolises, such as noise, pollution and costs generated.

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