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Valorization of logistics infrastructures using the SWOT-Delphi-CAME methodology. The case of the Albacete railway logistics platform

INGENIERÍA CIVIL

Puesta en valor de infraestructuras logísticas con utilización de la metodología DAFO-Delphi-CAME. El caso de la plataforma logística ferroviaria de Albacete

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Abstract

The business methodology presented in this article reflects a complete methodological analysis for the evaluation of the situation or starting point of a company, or in this case a railway logistics platform, and the actions and strategies that must be followed to achieve the proposed objectives. It is carried out by a previous panel of experts to know the situation and to delimit the aspects to be considered in the internal and external analysis, weighted numerically. With this, and employing business analysis of strategies, the lines to be followed of the two most significant aspects of the weighted analysis (the highest and the lowest score) are delimited. This methodology has been successfully used in the case of the Albacete railway logistics platform.

Keywords: Albacete, Analysis, Business methodology, Logistics platform, Strategy.

Resumen

La metodología empresarial que se presenta en este artículo refleja un análisis metodológico completo para la evaluación de la situación o punto de partida de una empresa, o en este caso una plataforma logística ferroviaria; y las actuaciones y estrategias que se deben seguir para lograr los objetivos propuestos. Se realiza mediante un panel de expertos previo para conocer la situación y delimitar los aspectos a tener en cuenta en el análisis DAFO. Posteriormente se ponderan numéricamente, enfrentado los aspectos del DAFO para obtener un resultado por enfrentamientos y cuadrantes (Panel Delphi). Con ello, y un análisis empresarial CAME se delimitan las estrategias a seguir de los dos cuadrantes significativos (mayor y menor en puntuación). Esta metodología ha sido utilizada satisfactoriamente en el caso de la plataforma logística ferroviaria de Albacete
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Palabras clave: CAME, DAFO Delphi, Metodología empresarial, Plataforma logística.

1. Introduction

Modes of transport have evolved throughout history, as new technological advances have been introduced.

Albacete has a history of railways since 1855, which developed to become an important transit point in the radial connection between Madrid and the Mediterranean coast for the transport of cereals, fruit, and vegetables; and as a starting point or origin towards the Levantine coast. Later, the textiles of the Catalan industries based in the province made Albacete an important transit point for goods.

Currently, the Albacete-Los Llanos station has a logistics platform adjacent to the remodeled Albacete station; this station has high-speed and other medium-distance services. However, in 2010 an initiative was launched by Administrador de Infraestructuras Ferroviarias (ADIF) to improve the land surrounding the Spanish High-Speed station for the operation of goods, in which the land was adapted with the construction of an operations and maneuvering area, in which a ramp was provided for vehicle access to the convoy wagons for possible road traffic, in addition to its corresponding reception and dispatch lines.

Throughout the Iberian Peninsula there are numerous railway logistics platforms, either belonging to or connected to the ports, in the form of the so-called dry ports [1], or on platforms strategically located to provide a railway connection for the goods in the area. The latter is what happens with the Albacete railway platform, which is located in a strategic area in southeast Spain, very close to the Mediterranean Corridor, and is included as a transit point in the core network that links the center of the country (Madrid) with the Spanish Levant [2].

A series of measures have been established by the European Union to develop and encourage so-called corridors. These corridors represent the priority goods transport routes, routes that link European Union member countries to facilitate imports and exports through the use of rail, encouraging it over other means such as road (lorry) or sea. Intermodality of goods is also encouraged, that is, the use of different means of transport according to the optimum distances along the route, with the cargo being transported from origin to destination, but changing the mode of transport. For long distances or distances around the world, the use of maritime transport is promoted as an optimal means, but for not so long distances the use of rail makes it competitive in terms of costs when compared to the use of road transport, i.e. trucks. In Europe, there is currently a trend towards the use of trucks as the transport model of choice due to their low costs and reliability in time, all due to the current just-in-time consumption mode,

which promotes the business model of large companies (together with those in charge of logistics and transport) of the so-called door2door.

Within the evolution of the transport market, in which competition is increasing, and where the search for efficient and high-quality services for the user seems to be the most appropriate way to achieve a greater share of participation, the worldwide development of intermodal transport and, in correlation, combined transport, stands out.

Generally, and not without exceptions, rail transport is competitive under four basic parameters:

i.   Distances over 300 kilometers.

ii. Balanced round-trip traffic.

iii. Frequencies: more than 3 trains per week.

iv. Regularity: stability over time.

And these are also the indicators of economic profitability in the management of a rail logistics terminal.

Therefore, it is necessary to identify the axes in which the ARLP (Albacete Rail Logistics Platform) will have its strong points, as well as the target market to be developed: national/international; land/land-sea; type of goods; mode of transport to be applied (conventional/intermodal), etc.

The logistics platform has not been used since its construction, which means that it is currently in optimum condition for operation. According to the data provided by ADIF-Servicios Logísticos and its attached plans, the dimensions would be 12,000 m^2; made up of a width of 36 meters, and 300 meters in a rectangular layout plus a trapezoidal layout of 30 meters, to complete the 12,000 m^2. At the same time, Albacete's connections with the General Interest Network (GIN) are independent, it has a north-south connection that connects with the Mediterranean Corridor, included in the Trans-European Freight Network, being this corridor a priority in the large connections with the central European routes; another of the connections is through Alcázar de San Juan, to be able to connect with routes towards the center-north of the country, including the Atlantic transport network or Atlantic corridor (which crosses Madrid). joining up with Zaragoza), or routes towards the west-south, being able to link up with the other country belonging to the Iberian Peninsula, such as Portugal.

For this reason, this paper presents a study in which the Albacete railway platform is placed as a Rail-Roads Terminal (RRT) in the core or comprehensive network through a macroscopic analysis of national and international traffic, to achieve a connection to the Trans-European Transport Network (TEN-T) through the link with the Mediterranean corridor.

Albacete has evolved a lot since the Marqués de Salamanca inaugurated the first railway line in 1855. It has gone from being a small nucleus of just over 12,000 inhabitants to a capital of over 160,000, which is increasingly spreading throughout the territory. During this time, the transformation from an agricultural society to more modern and pluralistic society has taken place. This has been the evolution common to the whole of Spanish society. The recognition of the transformations experienced cannot make us forget that certain backwardness can still be seen concerning other Spanish cities of similar characteristics. Some of the demographic, urban planning, and economic challenges facing the city in the future can be identified today [3].

The liberalisation of additional, complementary

and auxiliary services in logistics facilities that took place in 2010. On that date. ADIF established a procedure for allocating space and using it to provide these services within its logistics facilities to rail companies and qualified applicants. This measure simplifies access to more than 30 ADIF logistics facilities. The logistics facilities with immediate initial management on a self-provision basis are Alhondiguilla-Vilaviciosa, Almería, El Carpio de Córdoba, Jerez Mercancías, Peñarroya Pueblo Nuevo, Alzira. Burriana-Alquerías, Gandía Mercancías, La Roda de Albacete, Moncofar, Villarreal, Villarrobledo, Les Borges del Camp, Tamarite Altorricón, Canfranc, María de la Huerva, Tardienta, San Vicente de Castellet, Ponferrada, Curtis, Toral de los Vados, La Felguera, Araia, Sequero Arrubal, Manzanares, Tembleque, Villacañas, Picón de los Serranos and Sanchidrian.

The approved procedure establishes the administrative, technical, and economic conditions to allow railway companies and qualified applicants to directly provide the additional, complementary, and auxiliary services set out in the Network Statement [4] at various ADIF logistics facilities.

The Mediterranean Corridor is one of the corridors included as part of the Basic Network in the list of TEN-T priority projects. It is constituted as a multimodal corridor, road, and rail, which connects the main nodes and ports of the Mediterranean. The project forms part of the Basic Network for Goods defined in the Strategic Plan for the Promotion of Railway Goods Transport in Spain" (PEITFM) and is also included in the European Rail Network for Competitive Goods Transport, forming part of a large European corridor that will be co-financed with the budget items of the Connect Europe Mechanism [5].

The location of the logistics platforms along the Mediterranean Corridor, the approach of specific intermodal solutions in those nodes or arcs with the highest levels of potential traffic, the identification of the groups of goods that are most attractive to rail transport, and the industries interested in participating in public-private partnerships for the financing of the infrastructure or the configuration of recommendations of a technical and commercial nature for the operation of the line. Consequently, we consider it a priority to implement a series of specific actions related to improving rail access to the large industrial centers in the eastern part of the Corridor, reducing the costs of the logistics chain [6] of intermodal transport and automotive materials, increasing productivity in rail services, solving interoperability problems in international traffic, and building rail port accesses in a standard gauge that promotes multimodal synergies in the automotive, iron and steel, and intermodal sectors.

2. Methodology

Figures 1 and 2 show the methodology developed and applied in this article for the study and development of a rail logistics terminal.

The SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) with a panel of experts in the field to define the aspects to be considered. With the results, a supplementary methodology is used to that of the SWOT analysis, which consists of applying a CAME (Correct, Confront, Maintain, and Exploit) to provide guidelines on how to act on the aspects found in the diagnoses obtained in the SWOT.

The Delphi panel is a numerical weighting based on a methodology similar to that applied by Awad et. al. [7] in their Delphi panel methodology, or in the article by Macías et. al.

[8], in which the methodology of this article can be further approximated, with the SWOT performed and subsequent numerical weighting similar to a Delphi panel.

This methodology has recently been used in various sectors, to be able to analyze the competitiveness within the sector itself; therefore, to be able to analyze the competitiveness of the Albacete railway platform, its use has been stated in this article (Figure 1), following the SWOT-CAME analysis methodology used by other authors such as Hilasaca [9], González [10] or Sánchez-Cambronero [11] (Figure 2).
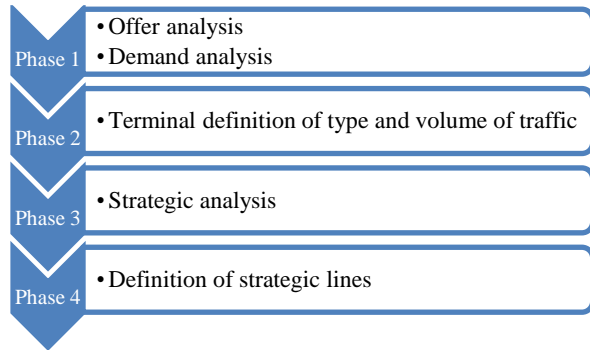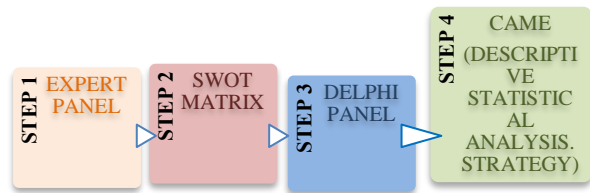

Figure 1. Structure of the methodology

Figure 2. Methodological progress

In the first phase, the analysis of the offer is carried out using descriptive analysis. This consists of the study of the services available to and provided by other logistics platforms throughout the Iberian Peninsula, which allows information to be extracted that can be used to see how and what the market demands in the use and operation of these railway logistics terminals.

The second phase consists of analyzing demand. A classic analytical methodology has been used in the collection and analysis of the data. This first part is based on extracting the information from the data in terms of an analysis of the local and international market with the mode of transport used; that is, an analysis of the interaction of the goods entering and leaving Albacete with the rest of the autonomous communities, as well as the level of imports and exports on a scale that has been defined by continents, making the distinction in Europe.

In the third phase, the analysis of strategies to be developed is carried out. To do so, an analysis of the results obtained from the SWOT panel (Delphi panel) was carried out. to extract the strategies to be followed through the CAME business decision making analysis.

Finally, the fourth phase defines the different lines of action that will be carried out to translate the strategies taken with the CAME analysis [12], being a supplementary methodology to the SWOT analysis, which gives guidelines to act on the aspects found in the situation diagnostics obtained previously from the SWOT matrix.

2.1. Supply analysis

For the analysis of the supply study, other logistics platforms spread throughout the Iberian Peninsula, mainly dry ports or port terminals, were considered, as well as their distances measured by rail and/or road.

A more detailed analysis of each terminal has also been carried out, highlighting the resources and services available to them (machinery, infrastructures, etc.) as well as accesses, location, capacity, and permitted length of reception and dispatch of goods trains.

All of this has been done to conclude the model for the railway logistics platform which is to be implemented, based on the services which are to

be provided in its initial phase, and the services which, depending on the demand, must be implemented or added to provide a better and more competitive service.

2.2. Demand analysis

In the analysis of demand, a methodology based on the classic analysis of the local and international market and the mode of transport has been used; local being understood as the market between the Autonomous Communities of the Spanish territory, either being Entrances in Albacete (to Albacete), or Exits from Albacete (from Albacete). The international analysis analyses the import and export of goods with origin/destination in the province of Albacete, and the estimated transport model along their route.

2.3 Definition of terminal type and volume of traffic

A study is made of possible traffic that is likely to change the mode of transport to the rail to estimate the optimum capacity of the terminal. Delimiting the number of tracks, as well as the annual and weekly traffic of trains that make the platform viable.

Also, the distribution of the tracks and the storage area is planned and the implementation of a series of logistics services carried out by the terminal is studied in stages, such as cross-docking, the deposit of UTIs (Intermodal Transport Units), etc.

2.4. Strategy analysis

In this section, we assess the SWOT prepared. A previous panel of experts made up of 8 members from the logistics sector (public and private) has defined the most significant aspects to be taken into account in the four sections that make up the SWOT.

The SWOT is a good start when a new business project is being considered as it helps to establish the strategies to make it viable. Furthermore, it can become a tool for reflecting on the situation of a company already created, a brand, or any system.

The SWOT analysis is divided into two parts:

- Internal analysis (Strengths and Weaknesses): In this phase a photograph is taken of the situation of the company or business project, considering its Strengths and Weaknesses.
- External Analysis (Threats and Opportunities): Both Threats and Opportunities belong to the external analysis, but they should be taken into account either to overcome them, in the case of threats or to take advantage of the opportunities offered by the external market.

Once the analysis has been carried out, it is necessary to define a strategy that leads to enhancing strengths, overcoming weaknesses, controlling threats, and benefiting from opportunities.

After the different SWOT themes have been extracted, the relationship between the system's internal factors (Strengths and Weaknesses) and the system's external factors (Threats and Opportunities) is weighted numerically (from 1 to 5).

As shown in detail in Table 1, we must define actions for:

- Correcting weaknesses: Make weaknesses disappear. To do this, we must take steps to make them stop existing, or to make them stop affecting us negatively.
- Addressing threats: Preventing threats from becoming weaknesses. To do this

we must take measures to respond to each one of them (prevent a risk from happening, reduce its impact, act to make it go away, etc.).

- Maintain strengths: Take measures to avoid losing our strengths. The aim is to maintain our strengths and strengthen them so that they remain a competitive advantage in the future.
- Explore/exploit opportunities: Create strategies and plan actions to turn opportunities into future strengths.

Table 1. SWOT-CAME analysis strategies

Swot-came	Opportunities	Threats
Strengths	Explore	Maintain
Weaknesses	Correct	Affront

2.5. Strategy analysis

A series of strategies are presented, with the CAME analysis, which, through the numerical results obtained from the Delphi panel, are determined as represented in Table 1.

This analysis of the strategies is intended to help in the decision-making process through the evaluation of the different strategies extracted. That is to say, to use the analysis as a tool to be able to reach the objective that has been set. For example, it helps in deciding for the possible implementation of a package of measures, or the application of service that favors and advances the development of the project, or the decision to maintain the position of the project and not develop any measure; these are some of the generic examples in decision-making on business strategies.

3. Results and discussion

According to the data published by ADIF - Logistic Services- and the plans provided, the operations-storage area is 36 meters wide, and has a total of 12,000 m^2, with concrete pavement, and 3 tracks of 300 meters long.

The railway logistics area has optimum connections for train access, from the main track to the departures, sorting, dispatch/reception of trains, and, from these to the operating tracks. The length of the operating tracks (3x300m) means that trains have to be cut (minimum 2). In general, trains of up to 750 meters are allowed on the track, which allows the optimization of traction capacity, increasing productivity. The 36-meter wide operation/storage area allows loading, unloading, and transfer maneuvers to be carried out.

The terminal, through ADIF, provides shunting services for the positioning, segregation, and training of trains in the necessary and authorized areas, and allows railway companies to operate on a self-service basis. Self-provision is the possibility for railway companies to be themselves. Directly, those who carry out shunting operations, with the commercial line locomotives. The concessionaire of the operation/management of the terminal can also take over these operations.

The current access to the terminal is in an area close to residential developments. This can be a source of inconvenience since the neighbors can be affected by the noise caused by the development of the terminal's activity. The noise of the entry and exit of trucks, as well as their maneuvers, or the noise of the loading/unloading of containers and their subsequent stacking.

To this end, a series of measures are proposed to mitigate the sound effects that are derived from the activity:

- To implement sound-reducing pavements.
- Installation of acoustic screens and anti-noise barriers.

- Placement of empty containers as screens.

3.1. Analysis of the results of the competitive offer

After analyzing the context in which the Albacete railway platform is located, the offer provided by other railway terminals throughout the Iberian Peninsula (Spain and Portugal) was analyzed. To this end, the services provided by the terminal have been analyzed, as well as its physical characteristics of static capacity, the number of tracks for reception/dispatch, loading/unloading, and maneuvers; in addition to the promoter and the terminal operator.

Therefore, the railway terminals shown in Figure 3 have been chosen, being port-specific railway terminals, railway logistics platforms, or dry ports; and their distances to or from Albacete by road or rail.

These are the distances between the different railway platforms with the Albacete platform, this is to be able to have a primary analysis of what the communications between terminals could be to organize a possible route, which could be through the union to the Mediterranean corridor with terminals such as Alicante or Valencia (a distance of 200 kilometers) or a transversal route of the Iberian Peninsula, with the union of the Portuguese ports.

For this reason, in the analysis of services at each terminal, it can be seen that the majority do not have all the services that can be offered, but rather offer services that can satisfy the market in certain strategic locations on the Iberian Peninsula. Almost all of them offer cross-docking, the deposit of UTIs (Intermodal Transport Units), and the stopping of wagons and locomotives, as is logical. But there is also the detail of the so-called reefers, which are
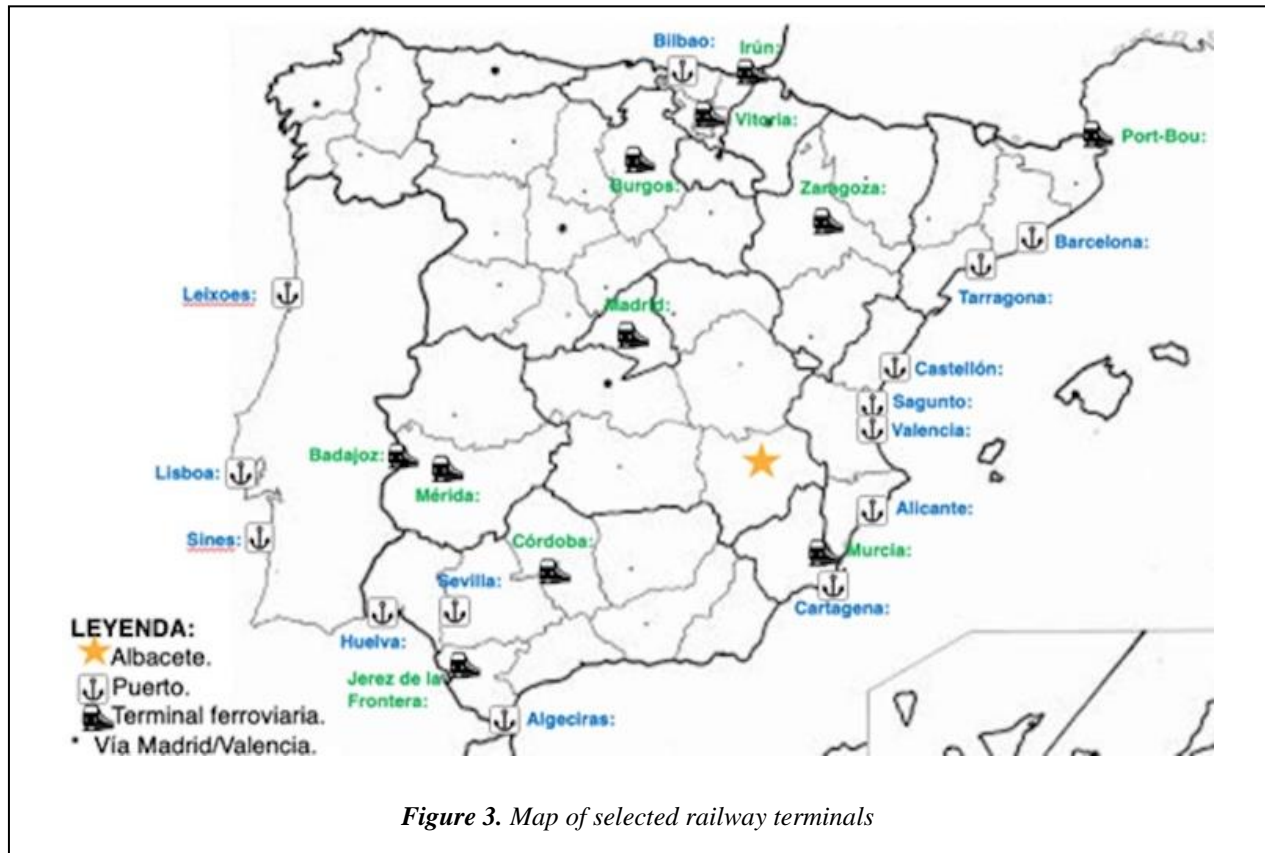

Figure 3. *Map of selected railway terminals*

present in three of all the aforementioned terminals, or the weighing of trucks more of the same.

Therefore, this terminal is planned to be set up in two phases, starting with basic services during the first period that the terminal is in service, which is those mentioned above (cross-docking, weighing of lorries, storage of UTIs, and siding of wagons and locomotives); and throughout its useful life, other services can be increased as the market requires, to make the Albacete rail logistics platform more competitive concerning the rail freight sector in the area and on the Iberian Peninsula, such as reefer services, customs, ADR or cleaning of wagons and UTIs.

Exploitation parameters:

The average length of stay: 3 days.

From 3 to 17 trains per week.

This means between 60,000-73,000 TEUs of capacity.

Approximately 40-50 tracks per line, which means a total of 160-200 TEUs. Placed at 3 heights = 480-600 TEUs.

3.2. Analysis of demand results

More than seven and a half million tonnes per year were moved from Albacete to other Autonomous Communities in 2018.

Table 2 shows that the Community of Madrid is the main destination with a 36% share of the national market, followed by the Community of Valencia (19%) and Andalusia (14%). More than 5.3 million tons are moved between these three destinations, which means approximately 70%; while if the first 5 destination communities are chosen (Community of Madrid. Community of Valencia. Andalusia. Castilla León, and Murcia) more than 6.3 million tonnes are moved, 82%. It should be noted that all these goods movements are carried out by the road.

Table 2. Goods moved in 2018 with origin/destination Albacete to other Autonomous Communities.

Location	Exported		Imported	
	(%)	Tons	(%)	Tons
Community of Madrid	35.93%	2,790,000	30.26%	1,935,000
Community of Valencia	19.02%	1,477,000	21.30%	1,362,000
Andalucía	14.55%	1,130,000	8.99%	575,000
Castilla-León	6.84%	531,000	8.99%	575,000
Region of Murcia	5.95%	462,000	8.54%	546,000
Catalunya	5.71%	443,000	5.58%	357,000
Extremadura	3.45%	268,000	3.50%	224,000
Aragón	2.33%	181,000	4.66%	298,000

País Vasco	1.78%	138,000	2.28%	146,000
Galicia	1.78%	138,000	2.78%	178,000
Community of Navarra	1.21%	94,000	1.42%	91,000
Cantabria	0.66%	51,000	0.47%	30,000
Asturias	0.49%	38,000	0.44%	28,000
La rioja	0.31%	24,000	0.77%	49,000
Total	**100%**	**7,765,000**	**100%**	**6,394,000**

Source: Own elaboration with data from the Permanent Survey of Road Transport of Goods (EPTMC) [13].

In the goods that move to Albacete, coming from other Autonomous Communities, the figures amount to more than six million tonnes per year; with the Community of Madrid as the main origin of the goods with a 30% share of the national market, followed by the Community of Valencia (21%) and Andalucia (9%). Between these three destinations, 3.8 million tonnes are moved, which represents approximately 60%; while if the first 5 destination communities are chosen (Community of Madrid, Community of Valencia, Andalucia, Castilla-León, and Region of Murcia) more than 4.9 tonnes are moved, 78%. It should be noted that all these goods are moved by road, as is the case with goods originating in Albacete. It is a more local, intra-autonomous market, which favors road transport.

In terms of imports carried out by Albacete (Figure 4), the European Union (EU-28) is the main source of imports, with more than half of these (55%); this represents almost three quarters (71%) of the economic value derived from the value of imports. Asia is the second-largest import market, representing a fifth (20%) of all imports with a monetary value of close to 17%, as shown in Table 3. The 10 main countries from which imports are made up the majority of the

market, with a share of more than 87%; it is similar in terms of the top 5 countries, taking up almost two-thirds of the market (65.6%).

The current trend is upwards, from 287,000 tons in 2014 to over 430,000 tons in 2018, i.e. almost 50% growth in the volume imported.
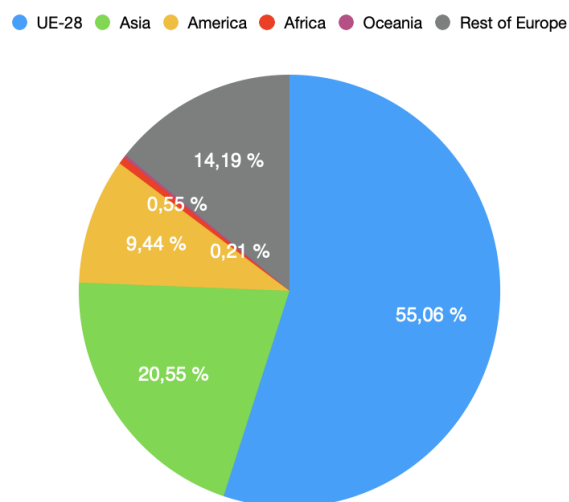

Figure 4. Continents' share of Albacete's imports
Source: Own elaboration with data from the Permanent Survey of Road Transport of Goods (EPTMC) [13].

Albacete's exports (Figure 5) are mainly destined for the European Union (EU-28). with more than four-fifths of the total (80%); this represents

Table 3. *Goods imported and exported by Albacete in 2018*

	Imported		Exported	
	tons	**(%)**	**tons**	**(%)**
UE 28	240,281,474	55.06%	457,382,323	80.52%
Rest of europe	61,922,470	14.19%	10,822,876	1.91%
América	41,205,701	9.44%	38,984,587	6.86%
Asia	89,670,189	20.55%	31,634,361	5.57%
Africa	2,381,988	0.55%	27,510,378	4.84%
Oceanía	913,715	0.21%	1,689,392	0.30%
Total	**436,375,549**	**100%**	**568,023,909**	**100%**

Source: The data are from the Permanent Survey of Road Transport of Goods (EPTMC) [13]

more than 740 million euros (nearly 72%).

America stands out as the second-largest exporter in the world, with a share of around 7%, representing almost 15% of the value of all exports. It is worth noting that the three countries to which it is exported represent more than half of all exported goods (56.7%); the top 5 countries to which it is exported account for two-thirds of all goods (68.3%) which leave Albacete.
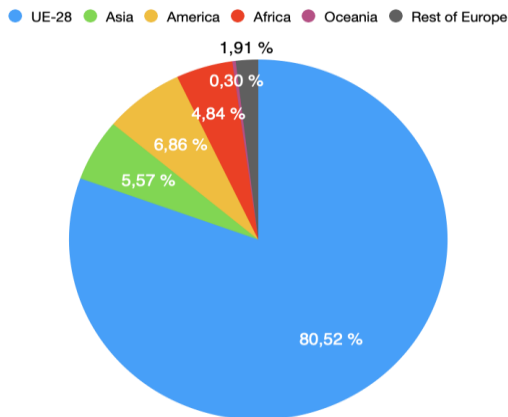

Figure 5. *Percentage of continents in Albacete's exports*
Source: Own elaboration with data from the Permanent Survey of Road Transport of Goods (EPTMC) [13].

Exports grew in 2015 and 2017 (around 600,000 tonnes) but are currently slowing down.

3.3. Analysis of strategy results

After a meeting with experts in the field of transport to define a total of six points for each section of the matrix, as shown in Table 4, the experts were sent in a first-round to rate the relations between external and internal agents at 1-5, with 5 being very strong and 1 being very weak, representing the aspects shown in the matrix.

The results of the numerical weightings obtained in Table 5 were those expected in the first instance since relations such as those related to Opportunity 3 (Optimal distances for the use of the railway) in relation to strength S3 (Good existing installation) obtained a low score.

Then, weaknesses such as W3 and W4. also get low scores, this is due to current problems that can be an inconvenience if no actions are taken in the short to medium term; measures. some of which have been proposed above in section 4.1.

Table 4. *Aspects of the SWOT matrix*

Strengths	Weaknesses
S1 - Good access	W1 - Infrastructure limited by track length
S2 - Boosting the business/industrial fabric	W2 - Short distances to nearby ports
S3 - Good existing installation	W3 - Existence of residential areas
S4 - Support from public agencies	W4 - Low storage space
S5 - Competitive logistics costs	W5 - Railway discouragement
S6 - Efficient routing of origin/destination routes Albacete	W6 - Current lack of use
Threats	**Opportunities**
T1 - Existence of other logistics platforms	O1 - Carbon footprint reduction
T2 - Trend towards road transport	O2 - Existing and growing demand
T3 - Residential opposition	O3 - Optimal distances for railway use
T4 - Opposition to the project	O4 - Major port developments in its area of influence
T5 - Lack of collaboration from adif	O5 - Call effect for new logistics operators
T6 - Reaction of the road sector	O6 - New collaborative models

Table 5. *Numerical results of the SWOT matrix*

	O1	O2	O3	O4	O5	O6		T1	T2	T3	T4	T5	T6		TOTAL
S1	4.26	4.26	2.59	2.99	3.03	2.62	19.75	2.33	3.05	2.80	1.59	1.78	2.08	11.54	**31.29**
S2	1.59	3.66	2.45	3.20	3.36	3.14	17.40	3.63	3.24	2.88	2.29	2.75	2.29	14.80	**32.20**
S3	2.45	2.83	1.78	2.40	3.24	2.88	15.58	3.60	2.70	2.04	2.14	2.24	2.29	12.72	**28.30**
S4	2.67	3.77	1.91	2.80	2.75	3.26	17.15	2.22	2.08	2.67	3.42	3.14	2.85	13.52	**30.68**
S5	2.22	4.15	2.94	2.88	3.53	3.43	19.15	3.42	2.99	2.08	2.14	2.70	2.99	13.33	**32.47**
S6	3.77	4.22	3.09	2.94	2.94	2.99	19.94	1.98	2.71	1.65	1.70	1.78	1.98	9.82	**29.76**
	16.96	22.89	14.75	17.22	18.83	18.32	**108.97**	17.18	16.76	14.11	13.27	14.39	14.48	**75.73**	**184.70**
W1	1.41	2.80	2.33	2.62	2.67	2.29	11.84	4.15	3.30	1.59	1.70	2.67	1.59	13.40	**25.23**
W2	2.22	3.60	4.31	3.84	3.56	3.36	17.53	3.96	4.26	1.31	1.51	2.45	2.38	13.49	**31.02**
W3	1.51	1.20	1.62	1.26	1.70	1.35	7.29	1.44	1.44	4.42	2.40	1.82	1.94	11.53	**18.82**
W4	1.51	1.59	1.70	1.91	2.08	1.65	8.78	2.57	2.00	1.26	1.51	2.80	1.51	10.14	**18.92**

W5	1.57	2.49	2.18	1.91	2.40	2.38	10.55	2.29	3.26	1.70	2.38	3.91	2.85	13.54	**24.09**
W6	1.76	3.01	1.59	2.52	3.66	2.90	12.54	4.22	4.82	1.31	2.14	3.03	2.54	15.51	**28.05**
	9.99	14.69	13.73	14.05	16.07	13.93	**68.53**	18.63	19.08	11.59	11.64	16.67	12.82	**77.61**	**146.14**
TOTAL	**26.95**	**37.58**	**28.48**	**31.27**	**34.90**	**32.25**	**177.50**	**35.81**	**35.84**	**25.70**	**24.92**	**31.07**	**27.30**	**153.33**	**330.83**

In Table 6, the global computation by quadrants is shown, representing the values obtained in the Delphi weights.

With these weights, the highest and lowest score are chosen in order to determine the CAME strategy to be followed.

The first quadrant (S-W) is the one that obtains the highest score (108.97), which means later on in the CAME analysis an offensive strategy. Take advantage of the terminal's advantages: accessibility, efficient routes, competitive logistics costs, etc., and strengthen the support of public bodies.

The third quadrant (W-O) is the one that obtains the lowest score (68.53), which in the CAME analysis means a strategy in which we must correct these weaknesses. Carry out changes in the terminal to extend the length of tracks and the storage area. Implement measures to mitigate the effect on the adjacent residential areas and disseminate the competitive advantages of the use of the railway.

***Table 6.** Strategic results of the SWOT-CAME matrix*

	Opportunities	**Threats**
Strengths	**108.97** Offensive strategy	75.73

	Opportunities	**Threats**
Weaknesses	**68.53** Correcting weaknesses	77.61

4. Conclusions

The methodology used in this article has been satisfactory for the results that were sought, as from them it has been possible to draw some very beneficial conclusions for the enhancement of the Albacete railway terminal.

Some conclusions on the supply of the infrastructure are. that the terminal is suitable for the handling of intermodal units and the handling tracks can be used for workshops in a possible second phase of development. Also, the two adjacent tracks can be used for the operation. gaining greater availability of container storage. as well as being able to use the land storage area (adjacent to the isolated track) as an area to be developed according to demand.

Depending on the planned development, new utilities can be added to the terminal (1st phase and 2nd phase).

The conclusions on demand, in terms of import/export goods or domestic traffic, determine that there is a sufficient volume that can be switched to rail, together with the possibility of a modal shift from the current road transport to and from Portugal, France, or Belgium. in addition to some peninsular ports.

Also, a series of alliances with peninsular ports could be promoted for international traffic.

There is a very important volume of goods that move through Albacete, exceeding 13 million between departures and arrivals in Albacete, which favors possible balanced traffic for distances of around 500 km and to promote intermodality with other peninsular railway platforms.

Therefore, with the results obtained in the CAME analysis, the two strategies are extracted. offensive and reorientation, which implies that opportunities must be exploited, and weaknesses corrected. To this end, a series of lines of action are proposed to be followed to implement the services in the first phase and to strengthen the platform's offer. These include identifying potential target clients through surveys, meetings, etc.; contacting potential railway companies interested in managing the railway platform (including ADIF).

5. Funding Statement

6. References

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