

Unlocking the drivers behind logistics service providers' participation in Morocco's logistics clusters

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Abstract

Purpose – In recent years, the concept of logistics clusters has attracted the attention of several researchers and practitioners. It is an agglomeration of different types of companies and operations, notably those providing logistics services, such as supply chain organization, storage and distribution. The paper focuses on this concept by examining the factors influencing LSPs to enter the logistics clusters.

Design/methodology/approach – An exploratory qualitative study based on semi-structured interviews was conducted. Regarding the sample size, the author interviewed 31 professionals belonging to logistics clusters located in the Moroccan economic metropolis of Casablanca.

Findings – The results show that the cost reduction, the reputation of the cluster, the learning from other LSPs, the communal services, the geographical proximity and the role of public authorities are the main factors impacting the entry of logistics service providers into these clusters.

Originality/value – This theme has never been investigated. Therefore, this research expands the literature review and tries to examine this gap of literature by studying the factors that can affect the adhesion of logistics service providers to these clusters.

Keywords Cluster logistics, Logistics service providers, Geographical proximity, The role of public authorities, Qualitative study

Paper type Research paper

1. Introduction

The development of logistics clusters has become one of the most important current policies of public authorities to promote the growth of logistics. The main objective of this policy is to encourage the pooling of resources and the increase in the rate of logistics infrastructure utilization. Logistics pooling has gradually emerged in the literature dealing with the freight transport sector. However, nowadays it is difficult to define this concept as it varies from one case to another. Cao and Zhang (2010), Carbone, Rouquet, and Roussat (2016) described logistics pooling as the ability of two or more independent organizations to work together and conduct joint operations at the supply chain level. Simultaneously, Moutaoukil, Derrouiche, and Neubert (2012) indicated that logistics pooling allows companies to combine their resources and activities while minimizing transport costs and increasing profits. In short, it allows for gains in terms of the pillars of sustainable development (Moutaoukil, Derrouiche, & Neubert, 2013). On the economic level, it is worth mentioning: the minimization of fuel costs and logistics costs (Guajardo, Rönnqvist, Flisberg, & Frisk, 2018; Wang, Liu, & Li, 2018). At the social level, logistical pooling minimizes stress for drivers and saves time during the



delivery trip (Moutaoukil, Neubert, & Derrouiche, 2015; Ghaderi, Dullaert, & Amstel, 2016; Gonzalez-Feliu & Battaia, 2017; Hensher, 2018). From an environmental and ecological point of view, pooling reduces noise and emissions and therefore improves the quality of air quality (Ntziachristos, Papadimitriou, Ligterink, & Hausberger, 2016; Niu & Li, 2019).

The concept of the cluster, proposed by Porter (1998), is commonly used in the economics and management literature to describe a grouping of related firms in a given geographical area. According to Benbba (2016), the logistics cluster constitutes the agglomeration of the logistics service providers. This allows us to conclude that LSPs are the main stakeholders in such clusters. Faced with an increased demand for outsourcing their logistics operations by manufacturers focusing on their primary competencies, these logistics specialists are developing rapidly. However, despite the real opportunities in the market, LSPs are confronted with some difficulties; therefore, they need to better reflect on their strategic choices, such as entering a logistics cluster. In this context, an investigation on LSPs' decisions to join a logistics cluster becomes necessary and important, not only for LSP managers but also for the government and cluster managers. Studying logistics clustering and the factors influencing the entry of logistics service providers into these clusters is crucial for optimizing supply chain operations, promoting economic development and addressing challenges and opportunities in the logistics industry. Several reasons have encouraged the author to study this topic:

- (1) *Policy implications*: understanding the factors that influence the entry of logistics service providers into clusters is crucial for policymakers. It can inform the development of policies and regulations that support the growth of logistics clusters, contributing to regional economic development.
- (2) *Efficiency and cost reduction*: logistics clustering allows for the concentration of logistics activities and infrastructure in specific geographic areas. This concentration can lead to economies of scale and scope, reducing overall logistics costs for businesses.
- (3) *Competitive advantage*: companies located within logistics clusters can benefit from proximity to suppliers, customers and other relevant stakeholders. This proximity can result in faster response times, reduced lead times and enhanced overall competitiveness.
- (4) *Innovation and knowledge spillover*: clusters often foster an environment of innovation and knowledge sharing. When logistics service providers are located in close proximity, there is an increased likelihood of information and technology transfer, leading to industry-wide advancements.
- (5) *Environmental sustainability*: logistics clustering can lead to more sustainable transportation practices. By concentrating logistics activities, it may be possible to optimize transportation routes, reduce emissions and promote environmentally friendly practices.

It should be noted that this theme has never been addressed in an African country. Therefore, we will focus on one of the leading African countries, which is Morocco. It is known for its strong logistics infrastructure as well as for the establishment of multinational logistics service providers, both at the national and international levels. Based on this statement, we propose the following research question: What are the main factors influencing the implementation choice of Moroccan logistics service providers in a logistics cluster?

The paper is structured as follows: the first section describes the previous research, the second section presents the methodology, the third section discusses the results and the last section is devoted to the conclusion, recommendations and future research directions.

2. Literature review

2.1 Logistics service providers (LSPs): history and definitions

Using operators who deliver goods from a manufacturer to a consumer has emerged in a very elementary and unstructured way with logistics (Michon, 2014). After the Second World War, the notion of logistics service providers evolved in conjunction with corporate logistics. In 1996, Colin indicated that to reduce transport costs, it is necessary to focus more on rationality, combining the search for efficiency and the lowest cost. Logistics service providers, which are known under the term LSPs, provide operations that can facilitate the achievement of this objective (Marchet, Melacini, Perotti, Sassi, & Tappia, 2017). However, this notion encompasses a multitude of actors, depending on their activity, their size and the way in which they operate. They do not always have the same interests, the same human and material resources and the same ways of delivering goods.

The development of transport modes over time has led us to treat the production process in a different way. Starting from local, regional and then national production to finally reach international production (König & Spinler, 2016). It is common to think that the components of a product have traveled thousands of kilometers before they reach the consumer. On the other hand, the reduction of imports during the 1970s led many companies to restructure their production. In addition, the minimization of the number of products stored either in the shop or in the warehouse also opened up other distribution processes. All these reasons encouraged shippers to outsource their logistics to logistics organizations, called logistics service providers (Prataviera, Creazza, Dallari, & Melacini, 2021). Table 1 summarizes the common definitions of logistics service.

The rapid logistics development in Morocco is remarkable, especially with regard to the construction and improvement of infrastructure. Take the example of the high-speed line (HSL): Morocco is the only African country that has introduced this type of infrastructure; it built a first line of 186 km in 2018 between the cities of Tangier and Casablanca (the economic metropolis of Morocco). There is also the large logistics platform “Soft Logistics,” located in the industrial zone Ain Sebaa in the city of Casablanca, which was built in 2017, several multinationals are located on this platform, including Saint José Lopez, Bolloré Logistics & Transport, DB Schenker, DHL Supply Chain and Global Forwarding and Dachser Intelligent Logistics. However, the logistics sector is still in the initial phase of development and lags behind developed countries.

The informality factor constitutes one of the main obstacles to using good logistics practices (for example, logistics pooling). It affects the transport of goods rather than handling, storage, and warehousing. Its effects are significant, Moroccan SMEs often prefer to use non-professional transporters because of their competitiveness; this decision can be justified by the fact that the provision of logistics services is expensive. In addition to informality, the lack of Moroccan regulations and norms also tends to slow the massive adoption of logistics pooling (whether of resources or activities): the modalities of access to the logistics profession, the regulations relating to the execution of logistics operations, the criteria necessary for the establishment of logistics zones (El Moussaoui *et al.*, 2022a, b, c, d). The study conducted by the Moroccan Ministry of Equipment, Transport and Logistic in 2019 indicated that the success of logistics pooling in Morocco is also conditioned by the availability of logistics platforms with specific functionalities, the existence of land with acceptable prices as well as good logistics accessibility and connectivity (motorways, rails). However, the public authorities and local communities in

Authors	Year	Definition
Lieb	1992	<i>Using external companies to perform logistics functions that have traditionally been performed within an organization. The functions executed by the third party include the entire logistics process and certain activities related to this latter</i>
Murphy and Poist	1998	<i>A relationship between a shipper and a third party, which offers personalized services compared to basic services. It covers a wide range of service functions and is characterized by long-term, mutually beneficial cooperation</i>
Berglund, Van Laarhoven, Sharman, and Wandel	1999	<i>Logistics services refer to activities carried out by a logistics service provider (LSP) and consist of managing and executing transport and storage. Other activities maybe included, for example, inventory management, information activities such as tracking, value-added activities such as secondary assembly and installation of products, or even supply chain management</i>
Bask	2001	<i>A relationship between supply chain interfaces and logistics service providers in an environment where effective and efficient logistics services are offered (ranging from basic to customized services)</i>
Coyle, Bardi, and Langley	2003	<i>The logistics service provides all or part of a company's logistics functions</i>
Zacharia, Sanders, and Nix	2011	<i>Logistics service providers are in the middle of supply chains and can collaborate with many other entities in the network</i>
König and Spinler	2016	<i>Logistics service providers constitute a specific type of organization that performs logistics services on behalf of third parties and therefore occupy a special position in the supply chain</i>
Marchet <i>et al.</i>	2017	<i>Logistics service providers traditionally provide basic services, such as warehousing or transport</i>
Prataviera <i>et al.</i>	2021	<i>Logistics service providers are central actors who can actively promote cooperation in a supply chain. They can increase efficiency and flexibility in logistics, and develop trusting relationships with other stakeholders</i>

Source(s): Table by author

Table 1.
Definitions of logistics
service

Morocco are still trying to improve the logistics sector and make it more efficient, even if the road to a quality logistics industry is still long. In this context, the Moroccan government, in partnership with the General Confederation of Moroccan Enterprises and the Moroccan Agency for the Development of Logistics, has deployed a national strategy for the development of logistics competitiveness to overcome the weaknesses identified and to promote the development of cooperative approaches, namely: logistics pooling. This strategy is based on five main axes, three of which are business actions and two of which are transverse support (El Moussaoui *et al.*, 2023a; El Moussaoui, Benbba, & El Andaloussi, 2023b; El Moussaoui & Benbba, 2023). The most important of these focuses on the development of integrated and efficient logistics service providers. This axis consists of promoting the development of competent LSPs, which are capable of providing a high value-added logistics service. In this respect, the Moroccan government plans to provide a regulation allowing to protect these actors against any informal practice. Furthermore, it seeks to give LSPs the infrastructure and land required for their operation.

Based on what has been said above, it can be deduced that the development of the logistics sector in Morocco is favored not only by the growing network of logistics service providers but also by the joining of the best transport companies; here we are talking about the clusters. The next two sub-sections explain this concept in detail.

2.2 Cluster theory

Marshall's contribution to cluster analysis was the earliest (1890). This author highlighted the concept of the "industrial district" by emphasizing the phenomenon of "industry localization," meaning "the concentration of a large number of small firms in some localities." The economic structure defined by this concept is characterized around a number of closely interlinked features: the agglomeration of industry in a geographically defined area, the specialization of industry in a single product, the clustering of many small firms specializing in one product manufacturing phase, the development of ancillary industrial and commercial activities, the existence of an industrial atmosphere conducive to learning and innovation and the availability of a skilled and mobile workforce. It is around these Marshallian concepts that the modern analysis of districts, particularly in Italy, has been built. Thus, [Becattini \(1991\)](#) defines the district as "a socio-territorial entity characterized by the active presence of a people's community and a population of companies in a given geographical and historical space, where a perfect osmosis exists between local community and companies (. . .) the term localization here does not mean the accidental concentration of several productive processes attracted to the same location by region-specific factors. Companies are, on the contrary, rooted in the territory, and it is not possible to conceptualize this phenomenon without taking into account its historical evolution."

Compared to Marshall's and Becattini's industrial districts, the cluster in Porter's view extends regional economic analyses by integrating the competitiveness of the firm ([Porter, 1998](#)). He emphasizes that "the sustainability of competitive advantages in a worldwide economy depends on local dimensions: knowledge, contacts, and motivation." Thus, the cluster can affect the firm's competitiveness by increasing the productivity of all the economic actors located in a given territory, accelerating the rate of innovation and stimulating the creation of new firms ([Suire & Vicente, 2008](#)).

According to [Wang et al. \(2018\)](#) and [Abushaikha \(2018\)](#), two mechanisms can explain the persistence of clusters: The first indicates that collaboration and cooperation between companies belonging to a particular cluster generate natural advantages, knowledge spillovers and a skilled workforce. The second mechanism suggests that clusters persist because they attract investment and generate higher profits than other locations.

The main problem that emerges from an analysis of the literature on clusters is the lack of a unanimously accepted definition (see table below). However, if we synthesize the results of work on clusters, we can see the existence of the following common features: (1) a territory organized around a city, (2) the specialization in the production of a specific product requiring the application of locally accumulated skills, (3) the agglomeration of numerous specialized companies linked together by competitive and cooperative relationships, (4) an atmosphere conducive to learning and innovation, (5) a segmented, highly flexible labor market, (6) a strong social consensus, (7) the importance of collective institutions and (8) a strong sense of attachment to the local community. The next section discusses the concept of logistics clusters.

2.3 What is a logistics cluster?

Logistics clustering has become a rapidly evolving phenomenon in recent literature on logistics and supply chain management. According to [Geng, Xiao, and Xie \(2013\)](#), the logistics cluster constitutes an organizational structure that combines the supply chain and the industrial cluster. In this respect, all companies involved in the supply chain can benefit from reduced costs, improved customer satisfaction and competitive advantage. Industry clusters support the supply chain by integrating academic institutions, government, associations and supporting industries with the aim of developing innovation and improving learning in the supply chain ([Kwilinski & Trushkina, 2019](#)). [Kumar, Zhalnin, Kim, and Beaulieu \(2017\)](#)

highlight multiple benefits of logistics clusters; these include cost reduction (competitive advantages: economies of scale, vertical integration of the cluster and learning effect), lowering of competitive risk (CA: increasing trust), increasing price and quality (CA: differentiation and discrimination effects) and increasing market volume (CA: product and market diversification). Benbba (2016) showed that the logistics cluster allows companies to enter new markets and access specific equipment or infrastructure, specialized resources and new partnerships. Furthermore, such a cluster can lead to faster development of companies and expand new facilities, etc. In this regard, it can be alluded to that the logistics cluster benefits concern not only the traditional industries but also the high-tech and business services sectors.

Generally, the attractiveness of a logistics cluster can be explained by agglomeration economies and the relationships between stakeholders within the cluster. Agglomeration economies refer to the positive economic externalities related to the existence of a specialized labor market. External economies are linked in particular to the size of the agglomeration, i.e. the population density, the total number of facilities, and the availability of infrastructure, public services and business services (Kumar *et al.*, 2017; Liu, He, Cao, Li, & Jian, 2022). The interaction between stakeholders is mainly facilitated by geographical proximity, which can also promote formal and informal transfers of knowledge, tacit information and skills. These spatial and relational sources of cluster benefits are the foundations of cluster policy (Nowakowska-Grunt, Jelonek, & Kościelniak, 2014; Hylton & Ross, 2018).

There are several logistics clusters around the world, called, “Distribution Park” in Japan, “Freight Village” in Germany, “Logistics Platform” in Spain, etc. The main criterion for defining a logistics cluster is the existence of an agglomeration of logistics service providers in a territorial network (Han, 2019). In this case, LSPs share logistics infrastructure, reduce their operating costs and achieve greater profitability through economies of scale. On the other hand, they offer multiple services, including warehousing, transport, information systems, industrial processing and consulting (He, Shen, Wu, & Luo, 2018). According to the Moroccan Ministry of Equipment, Transport and Logistics, it seems that the concept of logistics cluster resembles rather the definition of “Freight Village,” a specific location in which all activities concerning transport, logistics and distribution of goods for both national and international flows are carried out by various logistics service providers (El Moussaoui *et al.*, 2022a, 2022b, 2022c, 2022d). The investors in such clusters are diversified – government, urban agencies of cities, SMEs and multinational companies. Most of the logistics clusters are located close to transport infrastructure; some are intermodal, while others are attached to industrial neighborhoods to better meet customer requirements. Some commercial companies, insurance service providers and banks can also be found in these logistics groupings.

According to the Moroccan Agency of Logistics Development, the appearance of logistics clusters is not incidental. This phenomenon is initially correlated with urbanization, which contributes to the increase in land costs and environmental pollution. Given that the logistics industry requires massive investments in transport infrastructure and multiple facilities (warehouses, etc.) and still poses serious environmental challenges, the Moroccan government is becoming aware of the necessary means to ensure efficient and effective management of logistics facilities and to reduce their environmental impact. The construction of logistics clusters is thus becoming a major policy of the Moroccan government to combat the above-mentioned problems and stimulate logistics development (MALD, 2020).

The literature shows that numerous studies linking logistics clusters and logistics service providers have been carried out. For example, Abushaikha (2018) examined the influence of logistics clustering on distribution capabilities. Subramanian, Gunasekaran, Papadopoulos, and Nie (2016) studied the role of LSPs in leveraging industrial cluster competitiveness. Hylton and Ross (2018) treated the influence of agglomeration economies on the competitiveness of

logistics clusters from the point of view of LSPs. However, no investigation has focused on the factors influencing the entry of these logistics service providers into these clusters. This research expands the literature review and tries to examine this gap of literature by studying the factors that can affect the adhesion of logistics service providers to these clusters.

3. Methodology

Our empirical approach is based on a qualitative study. The purpose of this study is to explore the most influential factors in the location decisions of LSPs. The research question does not lend itself well to a quantitative study since it refers to a specific context (Fischer & Guzel, 2022). The choice of the qualitative study as a research approach can also be justified by the reason that our article deals with a relatively unexplored phenomenon; it is intended to be exploratory in nature. In such a case, qualitative research will be the best suited. Yet, El Moussaoui, Benbba, Jaegler, and El Anrani (2022e) and Dibi, El Moussaoui, El Moussaoui, and Loqman (2024) indicate that the subjective methodology is preferred to the objective. In addition, this approach requires inductive reasoning. This means that we must try to understand reality and even formulate strong hypotheses, rather than confirming hypotheses that are part of quantitative research (Towers, Abushaikha, Ritchie, & Holter, 2020). This is the main reason why we have adopted a qualitative research methodology within an interpretative framework. This choice is confirmed by the studies El Moussaoui *et al.* (2023a), which state that an interpretative paradigm is often associated with qualitative research.

It should be noted that any qualitative survey requires a structured document called an interview guide (El Moussaoui *et al.*, 2024). When developing the interview guide, we need to start with general questions and then move on to specific questions to put the interviewee at ease. Our interview guide contains four parts; each part gives us specific information on the topic investigated. To collect primary data, we conducted semi-structured interviews with three types of actors (professional association administrators, government officials and logistics service providers) working in two large logistics clusters located in the city of Casablanca (the first is located in the tertiary heart of Casablanca, while the second is on the Ain Sebba-Bernoussi industrial state). In addition to these interviews, other methods, such as document analysis and non-participant observation, were used to collect additional data.

In terms of sample size, we have tried to interview the maximum number of actors to obtain reliable and valid results. In summary, 31 out of 40 people have accepted our invitation to be interviewed (see Table 2 for more details): seven interviews with professional association administrators, five interviews with government officials and 19 interviews with logistics service providers of different sizes (selected according to representativeness). These LSPs can offer at least two types of logistics services that include a value-added service. Interviews with local government and professional association personnel provide some additional data. The sample size may seem a little small. However, it is still sufficient for an exploratory qualitative study using the semi-structured interview as a methodological tool for collecting data. This is the case of several studies dealing with logistics clusters, starting with Abushaikha (2018), which studied the influence of logistics clustering on distribution capacities through only 24 semi-structured interviews. Kaci and Amiar (2022) examined the territorial conditions for the establishment of an agro-logistics cluster by conducting just eight interviews. In this context, the author tried to lightly increase the sample size to obtain more reliable and valid results. However, he knew from the outset that sending out more invitations to several people did not mean that they would agree to participate in the study, and that is exactly what happened, since 31 out of 40 people agreed to be interviewed.

Participant	Role	Experience	Length of interview
Professional association administrator 1	Professional services consultant	7 years	42 min
Professional association administrator 2	Chief executive officer	21 years	76 min
Professional association administrator 3	Transport and innovation officer	4 years	38 min
Professional association administrator 4	Supply chain professional specializing in customs and transport	5 years	41 min
Professional association administrator 5	International transport and logistics professional	9 years	47 min
Professional association administrator 6	Professional services consultant	6 years	52 min
Professional association administrator 7	Professional transport analyst	4 years	59 min
Government official 1	Project manager	8 years	48 min
Government official 2	Business analyst	3 years	56 min
Government official 3	Head of supply chain modernization	17 years	91 min
Government official 4	Business analyst	6 years	52 min
Government official 5	Head of market research department	10 years	74 min
Logistics service provider 1	Logistics operations coordinator	3 years	57 min
Logistics service provider 2	Chief executive officer	12 years	77 min
Logistics service provider 3	Chief executive officer	14 years	64 min
Logistics service provider 4	Logistics operations coordinator	2 years	51 min
Logistics service provider 5	Chief executive officer	10 years	69 min
Logistics service provider 6	Logistics manager	7 years	58 min
Logistics service provider 7	Logistics manager	9 years	74 min
Logistics service provider 8	Chief executive officer	11 years	79 min
Logistics service provider 9	Chief executive officer	16 years	86 min
Logistics service provider 10	Logistics operations coordinator	4 years	48 min
Logistics service provider 11	Chief executive officer	14 years	90 min
Logistics service provider 12	Logistics manager	9 years	63 min
Logistics service provider 13	Logistics operations coordinator	3 years	52 min
Logistics service provider 14	Chief executive officer	21 years	75 min
Logistics service provider 15	Chief executive officer	18 years	81 min
Logistics service provider 16	Logistics operations coordinator	5 years	48 min
Logistics service provider 17	Logistics manager	12 years	80 min
Logistics service provider 18	Logistics manager	8 years	57 min
Logistics service provider 19	Logistics operations coordinator	2 years	42 min

Source(s): Table by author

Table 2.
Profile of participants

The choice of the city of Casablanca as a location for the study can be justified by several reasons. Firstly, it is ranked highest in the country in terms of gross domestic product, foreign trade and foreign investment. Secondly, Casablanca has the best logistics infrastructure and the largest number of experienced LSPs. Unlike other less developed cities, Casablanca designates the best study field to interact with LSPs who have the richest experiences, in terms of the successes and challenges they have faced. Finally, this city has a traditional role of testing social and economic reforms in Morocco: the experiments carried out in Casablanca could be diffused after a few years in to other cities and regions, in an autonomous way or under the impulsion of the government. It is therefore interesting to conduct exploratory research in this “pilot” city to identify trends that could be generalized as well as new research perspectives for the future. The results of this study are presented in the following section.

4. Results and discussion

Data processing means that all the information gathered must be synthesized and that the results should be presented in a clear and precise way. The content of a qualitative study (interviews) can be analyzed on two levels. The first is the description of the data: we talk about what was said, observed or documented without adding anything to it. This type of analysis is often called the manifest level of analysis. The second level is that of interpretation; it consists of determining the meaning and significance of each response. This is sometimes called the latent level of analysis.

After recording the 31 interviews conducted with the various participants listed in [Table 2](#), the author transcribed all the voice recordings, not only to better understand how the participants responded to the questions asked but also to respect the rigor of scientific research.

To structure data from different horizons, a thematic analysis was then conducted through a coding process and a theme dictionary, resulting from both the literature review and the field elements that emerged during the data collection and analysis process. The interviews allowed the author to suggest an overview of the motivations that push logistics service providers (LSPs) to enter a logistics cluster. Among these motivations, some are generic, i.e. they have similar characteristics with those found in other studies and research in other countries or industries, but others are “contextualized” motivations, i.e. they are closely linked to cultural and political factors in Morocco.

The interviews confirm that LSPs’ tendency to enter logistics clusters is inevitable. Even though the logistics clusters are not all well planned, one expert says that there are sometimes “*blind constructions for the political performance of the local administrators.*” The decision to locate in a logistics cluster becomes an important strategy for LSPs who want to take advantage of the benefits offered and face the challenges of the market. A manager of the logistics association indicates that “*today’s environment is not ideal for LSPs, especially those of medium and small size, they are looking for a port of refuge, that’s why they choose to agglomerate.*”

In most cases, logistics service providers can benefit from an agglomeration effect in terms of cost advantage and more direct access to resources not available to other competitors outside the cluster. The interviewees explain different motivations for choosing to enter a logistics cluster. In the coding and data analysis process, the author reflected on the precise motivations on the basis of the literature review and the number of times they were mentioned in the interviews. Once the variables had been conceptualized, the concepts were “recoded” to interpret this phenomenon (see [Table 3](#)).

Factor	Advantages of cluster
Cost reduction	Minimization of costs related to the use of logistics resources
Reputation of cluster	Good service quality, credibility enhancement
Learning from other LSPs	New ICT and new skills
Increasing market volume	Diversification of services and markets
Communal services	Security and easiness
Geographical proximity	Collaboration between LSPs (sharing information and resources), trust
Role of public authorities	Improvement of infrastructure, benefit from some facilities (for example authorizations. . .)

Table 3.
Factors motivating LSPs to agglomerate in the logistics cluster

Source(s): Table by author

Table 3 shows that there are seven main factors that can motivate logistics service providers to agglomerate in logistics clusters; the first five have already been mentioned in the literature review (generic), while the last two (contextual) have been discovered on the basis of interviews with the 31 selected actors.

4.1 Cost reduction

The most mentioned factor concerns the reduction of costs for LSPs, in fact, the authors have already highlighted the expected benefit of an agglomeration effect in terms of cost advantage and more direct access to resources, which are not available to other competitors outside the cluster. Several cost categories can be reduced by joining a logistics cluster. Firstly, LSPs have more direct access to logistics infrastructure with a reduction in costs, one government official emphasized that *“the objective of building logistics clusters refers primarily to increasing the utilization rate of logistics infrastructure. To attract the logistics service providers, we obviously try to build and improve the infrastructure in and around the cluster.”* Then, the interviewees often talked about the importance of reducing the costs associated with the use of logistics resources, such as storage facilities and parking. The logistics cluster includes infrastructure that is common to the different companies located in the cluster, such as warehouses, etc. In addition, a well-managed logistics cluster usually has a cost advantage in terms of rent compared to the quality of services offered.

According to the literature, labor costs can be reduced by the availability of specialized “agglomerated” staff in a cluster, but the interviewees did not indicate this type of cost reduction. When the author asked the president of the Moroccan Freight Transport Association about this issue, he indicated that the lack of awareness of labor agglomeration benefits is linked to the current situation of logistics service providers, which are not yet aware of the importance of having competent employees, especially for supervisory positions in their companies.

4.2 Reputation of the logistics cluster

It is interesting to note that several interviewees highlighted their sensitivity to the reputation of a logistics cluster. Larger logistics service providers choose the best clusters in terms of the reputation of their governance, diversity, and quality of services offered in those clusters. Medium and small LSPs are rather sensitive to the credibility of a logistics cluster, which also increases the reputation of the inserted LSPs, following the principle of “joint marketing.” As one public employee says, *“we aim to build the best logistics parks to attract the logistics service providers, we make a lot of effort on the supervision of the cluster management. They (LSPs) are all sensitive to the reputation of a logistics park”*. The reputation of a logistics cluster is based on three main aspects, namely: security, infrastructure and the quality of services offered. The issue of security can be crucial for logistics service providers, especially those of small and medium size. According to the director of an LSP, which mainly offers road transport-related services: *“The market today is not yet well organized, it is chaotic, you know there are a lot of mafias, in the road transport sector. Logistics companies have to look for protection, for example, they can enter a logistics cluster, and then it is more difficult to be racketed. So we are no longer individuals, but we depend on a protective group.”*

4.3 Learning from other LSPs

If shippers are expressing an effective demand for qualified LSPs to provide standardized and high-quality services, the professionalization of their professions is proving to be costly and difficult for logistics service providers. In this way, the logistics cluster has become a favorite place for the professionalization of LSPs’ professions (via a learning effect).

According to an association manager, many logistics service providers join logistics clusters to learn from other LSPs, as “*they can observe and exchange. These are not benefits that can be immediately profiled, but they are very important for their further development*”. This statement was confirmed by several LSPs interviewed. For example, a vice director of a medium-sized LSP stated that “*it is important to be around other companies, we can understand why they are successful and why we are not. . . . It is always better to observe the behavior of others, we can find out what are the keys to their success and ask ourselves if we could not do the same thing.*” This access to learning in the logistics cluster thus becomes an important motivation and criterion in the choice of such cluster.

4.4 Increasing market volume

The need to access new markets constitutes another motivation for LSPs to join a logistics cluster. According to our interlocutors, there is an opportunity for logistics service providers to diversify their markets and services by taking into account the complementarities of skills of other LSPs and the sharing of resources. In fact, this attractiveness of a logistics cluster for LSPs is rather a consequence of several characteristics specific to this logistics cluster, such as the learning effect, the geographical proximity to certain markets, the exchange of information and also the collaboration between these logistics companies. According to the director of an LSP, “*we believe that it is possible to develop our activities in this cluster. On the one hand, it is close to the Ain Sebaa Industrial Zone, which gives us access to many potential customers. On the other hand, when our friends (other LSPs involved in the same cluster) have some requirements that they cannot meet, they can transfer those businesses to us.*” In addition, some logistics service providers involved in the same logistics cluster can collaborate with each other to expand or diversify their markets and services.

4.5 Communal services

One of the most important services provided in a logistics cluster is the availability of office buildings for the logistics service providers, likely to reinforce the geographical proximity and promote the establishment of logistics service provider networks. In addition to office space, “*the logistics cluster often provides meeting rooms, restaurants, bank agencies, supermarkets, leisure centers, etc.*” said a manager at a logistics service provider. Usually, the logistics cluster manager is also responsible for services related to waste management of common areas, cleaning, maintenance of infrastructure, etc. The presence of all these communal services constitutes another factor in the attractiveness of a logistics cluster for LSPs.

4.6 Geographical proximity

In a logistics cluster, geographical proximity plays a crucial function for local LSPs. In particular, it facilitates collaboration between them. The authors highlight the importance of a logistics cluster in the development of relational dimensions and synthesize the advantages of these relationships. It should be noted that the high degree of collectivism is one of the main attributes of Moroccan culture, as people are born into extended families and groups with a high degree of internal cohesion. Since Moroccan interpersonal behavioral norms distinguish between in-group and out-group norms, it is important for Moroccans to focus especially on harmony, attachment and long-term community relationships to avoid rejection.

“*The geographical proximity between logistics service providers makes the logistics cluster a meeting place where these stakeholders can meet each other, and create a social relationship between them,*” said a manager. The relationships between all members of this “family” are usually stable. The cooperation established between LSPs then allows them to build new competitive advantages.

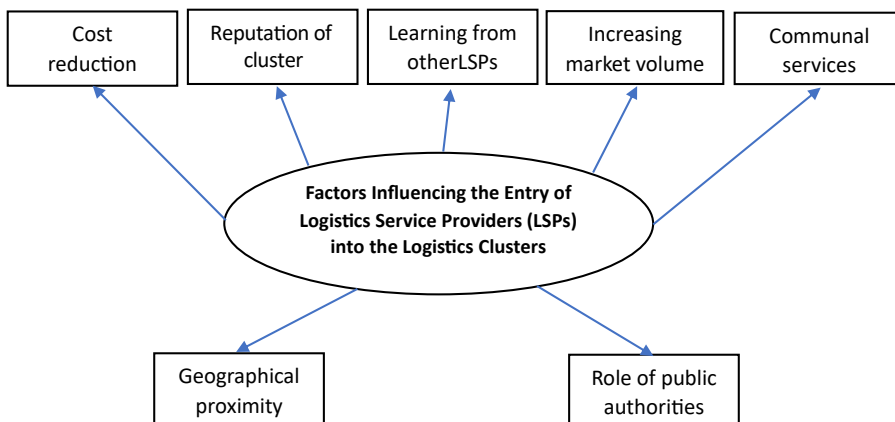
These relationships developed through geographical proximity cannot, however, support the efforts made by intermediate organizations (local authorities, associations, etc.), which contribute to the social regulation of the system. These efforts are related to the definition of norms in the technical field as well as to the setting up of meeting or conference structures by professional associations. They allow the logistics service providers to interact with each other and build up business relationships with other stakeholders and with the cluster's managers.

4.7 Role of public authorities

In Morocco, the construction of a logistics cluster is very often decided and executed or supported by public authorities locally, provincially and nationally, with the objective of creating new competitive advantages for the region. They are not only involved in the development of preferential incentive policies of different types to attract investors (subsidies, tax exemption, etc.) but also in the necessary investments. According to the Moroccan Ministry of Transport and Logistics, almost all logistics clusters are planned by the Moroccan government and implemented by consultancy firms specializing in urban logistics, such as Logicités. For example, a manager of a logistics cluster said, *“you can never imagine a logistics cluster without the intervention of the Moroccan government. In fact, it is the government that organizes this group of companies and consequently attracts LSPs to locate there while ensuring effective and efficient logistics.”* Based on this statement, it can be deduced that the interventions of public authorities in the development of logistics clusters and their efforts to create a common identity within them encourage the logistics service providers to move in and stay there to benefit from the multiple advantages offered. This allows them to maintain good relationships with the public authorities and thus obtain further support.

In addition, the logistics sector is sensitive to quick responses in finding a solution to its problems within a short time. Based on this study, the coherence of the responses provided by the logistics service providers implies very often the intervention of the public authorities, which offices are frequently located in the logistics clusters. LSPs, therefore, have a major interest in moving to such clusters to facilitate their relations with these public authorities in terms of exchange, communication and collaboration as well as to benefit from facilities (for example, administrative procedures and authorizations).

Based on these results, we propose the following conceptual framework: [Figure 1](#).



Source(s): By author

Figure 1.
Conceptual framework

5. Conclusion

The concept of cluster presents a new vision of the benefits of agglomeration by suggesting that the geographical grouping of economic actors has positive effects on the competitiveness of the company. The motivations for LSPs to enter a logistics cluster not only depend on their various strategies but also on the advantages offered by these clusters. The logistics service providers are primarily looking for better accessibility to transport means in order to reduce their logistics costs, and they also benefit from proximity to the shippers in order to perceive their needs in real-time. This proximity contributes to increasing their chances of being selected by new shippers operating in the same network.

Logistics service providers enter a cluster with other objectives, such as proximity to other LSPs for exchanging information and pooling resources. They can also take advantage of economic incentives offered by the government to actors in a logistics cluster, such as tax reductions, specific subsidies, direct funding and even some bonuses for the most successful LSPs. Finally, the choice of a cluster can be influenced by geographical proximity and by the intervention of public authorities in the logistics cluster.

A clarification of these motivations allows for a better understanding of this policy that stimulates the development of logistics service providers worldwide in general and in Morocco, in particular. Such a policy will facilitate global economic integration by fostering the growth of logistics service providers. This is driven by the recognition that efficient logistics networks are fundamental to facilitating international trade, promoting exports and attracting foreign investment. In the context of Morocco, positioning the country as a strategic logistics hub enhances its role in global supply chains. Governments must implement policies to enhance the competitiveness of their domestic logistics sector. By supporting the development of LSPs, countries like Morocco can create a competitive advantage in attracting businesses and becoming a preferred location for logistics and distribution activities. It also invites us to not only reflect on the consequences of the construction of logistics clusters, which favor the geographical concentration of logistics activities and logistics experts such as logistics service providers but also on the transformations of the supply chain that could result from it. In addition, we wonder about the strengthening of cooperation and collaboration between LSPs involved in different supply chains when they move to the same logistics cluster. The results will offer them a multitude of advantages, ranging from operational efficiency and risk mitigation to innovation and sustainability. This collaborative approach reflects a strategic vision for creating interconnected and resilient logistics networks that can adapt to the evolving challenges and demands of the global supply chain landscape.

While the motivations of geographical proximity and the role of public authorities can have significant advantages in fostering collaboration among LSPs in a logistics cluster, it is important to recognize and address the potential disadvantages. A nuanced approach that considers both local and global dynamics while navigating potential pitfalls related to resource competition, bureaucratic challenges and dependency risks is essential for building a resilient and sustainable collaborative framework within the logistics ecosystem. Furthermore, this study was conducted at a specific regional level (the province of Casablanca), so a comparative study between Moroccan regions (e.g. between large cities: Casablanca, Tangier, Rabat) or between countries would be interesting. Moreover, a quantitative methodology would be very complementary to measuring the influence of all the factors that we have identified in the choice of a logistics cluster by logistics service providers by ranking them from the most decisive factor to the least significant factor. Future research could take other variables into account, namely: access to major highways, intermodal connectivity, market access, infrastructure and facilities, labor availability and their skills, technology infrastructure, risk mitigation, cluster synergy, sustainability initiatives as well as government incentives.

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