

Governance of the logistics sector in Morocco: power and influence between stakeholders

Zineb AOUN, (Doctorante)

*Laboratoire de Recherche Prospective en Finance et Gestion (LRPFG)
ENCG Casablanca Maroc
Université Hassan II de Casablanca, Maroc*

Ossama AOUEANE, (Doctorant)

*Laboratoire d'Analyses Marketing et Stratégiques des Organisations (LAMSO)
ENCG Casablanca Maroc
Université Hassan II de Casablanca, Maroc*

Tarik KASBAOUI, (Enseignant chercheur)

*Laboratoire de Recherche Prospective en Finance et Gestion (LRPFG)
ENCG Casablanca Maroc
Université Hassan II de Casablanca, Maroc*

Mohamed LAHMOUCHI, (Enseignant chercheur)

*Laboratoire d'Analyses Marketing et Stratégiques des Organisations (LAMSO)
ENCG Casablanca Maroc
Université Hassan II de Casablanca, Maroc*

Correspondence address :	ENCG Casablanca Laboratoire de Recherche Prospective en Finance et Gestion Université Hassan II, Casablanca, Maroc (+212) 5 22 66 08 52
Disclosure Statement :	Authors are not aware of any findings that might be perceived as affecting the objectivity of this study
Conflict of Interest :	The authors report no conflicts of interest.
Cite this article :	AOUN, Z., AOUEANE, O., KASBAOUI, T., & LAHMOUCHI, M. (2023). Governance of the logistics sector in Morocco: power and influence between stakeholders. International Journal of Accounting, Finance, Auditing, Management and Economics, 4(5-2), 1034-1051. https://doi.org/10.5281/zenodo.10051594
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Received: September 08, 2023

Accepted: October 25, 2023

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Abstract:

Logistics creates added value and is essential for job creation. It could make it possible to integrate in Morocco corporate functions that are still performed in Europe. It could also boost the Moroccan economy by creating new services that are indispensable to multinationals, such as the emergence of logistics service providers and logistics platforms that create added value and enable the Moroccan economy to move upmarket.

Governance of the logistics sector in Morocco is managed by the AMDL, which implements all the rules and standards needed to develop the sector and manage relations between the various stakeholders in the sector. These stakeholders may have relations of power or influence with each other, depending on the importance and weight of each player in the sector.

The aim of our research is to identify the relationships of power and influence between stakeholders in the sector, to detect the governance of the sector. We used a qualitative study based on interviews with key stakeholders and deduced significant data on power and influence relationships between sector stakeholders. We processed this data using the Mactor tool, which analyzes potential alliances and conflicts between sector stakeholders through the establishment of matrices, enabling us to examine the potential for change in relationships between stakeholders. The results show that the sector is influenced by a very dominant stakeholder, the marginal secant, who forces the other stakeholders to negotiate the decisions taken in this sector.

Keywords: Governance - Logistics sector - influences

JEL Classification: O16, G38, M21

Paper type: Empirical research

1. Introduction:

This brief overview of logistics activities and logistics development shows that logistics is on the one hand a matter of corporate strategy and management, on both the production and distribution sides, and on the other, a market for the provision of services to customers. on the one hand, and on the other, is a market for the provision of services to companies driven by large, more or less global logistics firms. As a result, logistics activities are not only at the service of structuring economic activities, the spheres of production and production and distribution spheres - what the media refer to as the "real economy". What's more, they generate an economy of their own, with its own stakeholders, strategies and spaces. According to Coe and Hess, the logistics industry is a "value generator in its own right" (2013) and needs to be studied as such.

These activities therefore tend to constitute an economic sphere, gradually (Strale, 2013), culminating in a logistics industry (Coe and Hess, 2013), a distinct economic sector though necessarily linked to other economic sectors. Logistics, thus understood as a field of economic activities, is a global employer, mainly of manual workers (handlers and drivers) (Coe, 2014). Logistics is the activity whose purpose is to manage the physical flows of an organization, thus making available resources corresponding to needs, economic conditions and a given quality of service, under satisfactory conditions of safety and security. Logistics therefore represents all the activities involved in making the right quantity of products available at the lowest cost, when and where there is a demand.

The logistics function is a management function. It manages physical flows and must therefore evaluate the associated intangible flows of information. Logistics seeks to improve synergies and flexibility through the organization of resources, and thus industrial responsiveness. The logistics function therefore maintains strong links with the department responsible for the company's information system. These links are so strong that many concepts relating to information system analysis can be taken up by logistics. The fact remains that logistics deals with physical flows, and consequently with the means to evaluate and improve them, both quantitatively and qualitatively (through quality management). Logistics is at the center and ends of production and is jointly responsible with all departments for the quality of physical flows.

The term logistics comes from a Greek word meaning the art of reasoning and calculation (Pons, 1996). In the military context, logistics concerns everything that is (physically) necessary to enable strategic and tactical decisions to be implemented in the field (transport, stocks, manufacturing, purchasing, handling) (Pons, 1996).

Industrial logistics is based more specifically on production support activities. Today, the term is used to cover all activities relating to the acquisition, storage, movement, and delivery of goods, so that the concept of logistics can be interpreted in many ways, from simple transportation to an interdisciplinary science combining engineering, microeconomics and organizational theories.

Originally, the term "logistics" belonged to the military lexicon. In this sense, it refers to "a part of military art concerned with the transport and supply of armies". After the Second World War, the term came to be used in the corporate sphere, and it was above all companies in the automotive and mass retail sectors that were targeted by logistics, as these were predominantly competitive sectors. Gradually, logistics moved on from the corporate sphere to other, very diverse fields: it became hospital logistics, human logistics, event logistics, etc. In general, it became a key element of the company's strategy. It became a certain way of approaching an organization's problems, with a view to managing them. For this very reason, logistics is of interest to all managers, whatever their hierarchical level, educational background, or the size and sector of the organization in their charge.

It's worth noting that in the 40s of the last centuries, the field of application of logistics (its concept) only covered the physical functions of the distribution flow.

Today, the concept covers these physical flows as well as warehousing and information flows and the competition has shifted from individual companies to supply chains, leading to the development of logistics cooperation between companies in the same supply chain. The failure of a link in this chain means that the product is unavailable in just-in-time, both qualitatively and quantitatively.

The concept therefore considers the entire product life cycle: procurement, production, distribution, operation, and recycling phases. The company must therefore strive to increase quality and reduce costs, while remaining highly responsive.

To achieve these objectives, the company must rely on an efficient information exchange network between the various stakeholders in the supply chain.

Without this information exchange network with suppliers and customers, the company cannot be reactive. What's more, the efficiency of this network has a positive impact on quality, as the company is better able to quickly grasp the exact needs of its customers. This helps to reduce the level of uncertainty, an important market parameter, and consequently translates into lower costs. This is why most logistics activities are based on planning and control functions.

As a result, these functions are applied to the supply, storage, movement, and delivery of goods between a company and its upstream suppliers, on the one hand, and its downstream customers, on the other. On this basis, logistics is defined as the planning, execution, and control of the flow of goods and information for the supply, storage, movement and delivery of goods, in conjunction with the other links in the chain, to achieve the objectives assigned to the supply chain, in particular in terms of reducing market response time.

The uncertainty of demand in today's highly competitive market means that the focus must be on customer satisfaction, which means controlling quality, deadlines, and costs - the three keys to a company's success. This means that, to always remain competitive, the company must increase its responsiveness and reduce its costs. Logistics has a major impact on these three parameters.

Communication is a key element for supply chain stakeholders (Christopher, 2016; Gambetti et al., 2018; Gligor & Autry, 2012). Indeed, in an increasingly competitive market, communication to differentiate itself and better meet consumer expectations. Its stakeholders need to communicate effectively with the various stakeholders involved, including manufacturers, distributors, retailers, and end customers. They must also be able to communicate about the products they offer, their quality, functionality, price, availability, and delivery. This communication must be adapted to the different distribution channels used, and be and regular (Simatupang & Sridharan, 2002), to maintain consumer interest and and confidence in the products on offer.

Logistics costs make up a large part, and often the largest part, of the total cost of certain food products. Logistics performance will reduce this total cost.

The risk of quality degradation stems from poor supply chain design, including irrelevant suppliers, sub-optimal location, non-compliant equipment, unqualified personnel, and sub-optimal allocation of products and parts.

These inadequacies increase the risk of product quality deterioration during the various logistics activities of acquisition, storage, movement, and delivery.

Delivery times, and therefore the company's responsiveness, are influenced at operational level by the delivery and transport schedule, the allocation of means of transport to sites, and route selection:

At the tactical level, the company's responsiveness depends on how suppliers are allocated to production sites, how products are allocated to the two categories of production sites and to

storage sites, how products are allocated to customers, and on the choice of storage levels and modes and means of transport.

At a strategic level, an optimal choice of outsourcing and a responsive supplier, the implementation of an integrated electronic communication and planning system, and the optimal relocation of the various production and storage sites all contribute to reducing delivery times and increasing the company's responsiveness.

In this respect, supermarkets, which have captured an ever-increasing share of consumer goods, have played an eminent role in the structuring of the distribution sector, as well as in the emergence of the logistics services profession. It's worth recalling that, from 1995 onwards, Europe witnessed the expansion of logistics demand, the organization of this business and a movement towards greater concentration.

In this paper, we present the context of logistics in Morocco by analyzing the sector, and then we take a theoretical approach to logistics governance. Then, we present the governance of the logistics sector in Morocco to show an empirical study on the sector. Next, we present the methodology and the results of the study.

2. Logistics in the Moroccan context

2.1.1 Strengths:

Morocco is striving to move towards what is generally referred to as "upscaling" of exported products. Studies on value chains have shown that the greatest gains from trade lie in the ability to innovate or adapt to international demand (20% of GDP).

Morocco's geographical proximity to the European Union is a strength.

2.1.2 Weaknesses:

Obstacles can be diverse: the supply of quality road transport services is very low, port costs are almost 30% higher than those of regional competitors, the prohibitive cost of land for setting up logistics platforms, particularly in Casablanca, Agadir, Meknes and Nador, shippers' distrust in communicating inventories, production rates and customers, the small size of many shippers, which prevents them from bearing the costs of outsourcing their logistics, the lack of qualified manpower in this field, the weakness and lack of diversification of the logistics services on offer, almost all the companies offering a full range of logistics services are subsidiaries of European groups with multinational customers, courier services, still dominated by subsidiaries of multinational companies (DHL, Chronopost, UPS, FEDEX, etc.).

2.1.3 Opportunities:

Morocco has chosen the way of reform and liberalization. The implementation of the various free-trade agreements and the association agreement with the European Union could mean new opportunities, but also serious problems if Morocco does not prepare for these new challenges. The new context in which Morocco will evolve will inevitably lead to increased competition on world markets, but also on the domestic market in the medium term.

Benefits are expected from the implementation of the Association Agreement between Morocco and the European Union. The potential for trade with certain EU countries, such as Germany, Italy, and the Netherlands, is significant. The potential for trade with the United States is close to 20%. What's more, thanks to the reduction in customs duties under the Association Agreement, Morocco has easier access to larger markets, especially with the growing openness of the Moroccan economy: Association Agreement with the EU and free-trade agreements with Arab countries, Turkey and the USA.

2.1.4 Threats:

For Morocco, this diversity is a priori promising, but it runs the risk of wasting resources in the face of a shortage of skills and capital requirements. This diversity could even bring the concept of logistics platforms into disrepute and real competitiveness towards EU countries. For this, arbitration is therefore required, through master planning guidelines for logistics sites, to ensure the coherence of platform logistics structures.

After presenting the context of logistics in Morocco, we will present a theoretical approach to logistics governance.

3. Logistics governance, theoretical approach

Logistics is a key element of sustainable mobility (Cui & al, 2015; Anderson & al, 2005). Public policies have become aware of the challenges involved in regulating this activity, which is essential to territorial functioning but also generates numerous negative externalities. Logistics is increasingly based on a combination of warehousing and road transport, which is partly at odds with the sustainability objectives of public policy players. Indeed, logistics contribute to congestion and pollution problems, thus contributing to the growth in greenhouse gas emissions attributable to the transport sector worldwide (Dablanc & al, 2010). These negative externalities can be seen in terms of flows (the growth in road freight transport) and the location of warehouses (land consumption and soil artificialisation). The huge warehouses on the outskirts of metropolitan areas belonging to global e-commerce players sum up these externalities (Hesse, 2008; Dablanc and Frémont, 2015, Heitz, 2017).

Logistics is a fast-growing sector, with large private operators and numerous small local stakeholders. However, transport and related logistics services have been little studied by geographers, despite their importance for territories and societies. This issue is increasingly being addressed in public policy agendas and academic research. Analyses focus on the contribution of logistics to urban form, and the urban planning and land-use problems it poses to territorial functioning, particularly in metropolitan areas. These analyses are conducted in a variety of contexts (Hesse, 2008; Dablanc and Frémont, 2015). In the academic context, such analyses are less frequent in Southern countries, although the issue is also appearing on the public policy agenda, particularly in emerging countries such as Morocco, Mexico and China. According to Baron and Simoulin, governance is a mode of coordination involving public players, but also a mode of coordination among others (Baron, c., 2003; Simoulin, v., 2003).

According to the World Bank, good governance is the way in which power is exercised in the public management of economic and social resources for development. Governance involves a complex set of actors and institutions that do not all belong to the sphere of government, and it reflects an interdependence between the powers and institutions associated with collective action. Governance involves networks of autonomous actors and assumes that it is possible to act without relying on the power of the state (Stoker G., 1998).

At all, the governance is the coordination between private and public players and the local employment pool.

The increased of partnership relations between industrialized countries through contracts and franchises, and the extensive use of the logistics services market, is mainly due to transactions framed by institutional environments favorable to investment, which favors the implementation of governance structures in the logistics sector involving low costs and limited uncertainty (Coase 1998; Williamson 2002; North 2005). All laws and regulations, markets and the social, cultural, and economic environment help to guide the reasoning of individuals and organizations within a society (Di Maggio and Powell, 1991).

The institutional approach introduces the notion of the institution, which represents a set of formal rules (laws and regulations) and informal constraints (conventions and behaviors), as

well as enforcement instruments (North, 1990). Institutions consist of a structure adopted and placed by individuals to regulate transactions, so they are constraints imposed by individuals to manage their relationship (North, 2005).

The rules of the game within institutions can undergo institutional change when they are deemed ineffective or inappropriate to ensure greater efficiency and transparency within markets and contractual commitments. This institutional change concerns changes to formal rules such as legislation, statutes, laws, and regulations, as well as changes to informal constraints, which are notably slow and depend on the awareness of individuals (North, 1990). After presenting a theoretical approach to logistics governance, we will discuss governance in the logistics sector in Morocco.

4. Governance in Moroccan logistics companies:

Logistics is a key element in sustainable mobility. Public policies have become aware of the challenges involved in regulating this activity, which is essential to territorial functioning but also generates numerous negative externalities. Increasingly, logistics are based on a combination of warehousing and road transport, which is partly at odds with the sustainability objectives pursued by public policy players. Indeed, logistics contribute to congestion and pollution problems, thus contributing to the growth in greenhouse gas emissions attributable to the transport sector worldwide. These negative externalities are reflected in flows (the growth in road freight transport) and in the location of warehouses (land consumption and soil artificialisation). The huge warehouses on the outskirts of metropolitan areas belonging to global e-commerce players sum up these externalities. In Morocco, a trip on the A1 freeway along the Casablanca - Mohammedia - Rabat conurbation provides a good illustration of this combination of road transport and logistics warehouses. The widespread use of large, modern warehouses attests to the fact that the urban logistics landscape is becoming increasingly commonplace throughout the world. Several studies, notably in Europe and North America, have assessed the contribution of logistics in great detail to this growth in movements and the growth of logistics platforms.

The national strategy for the development of logistics competitiveness (2010) is a cross-functional plan based on five priorities. These are the development of a national network of multi-flow logistics zones, the optimization of goods flows, the development of the logistics sector's network of players, the development of skills through a national training plan, and the governance required to implement this logistics strategy. Interviews conducted with private and public players during the field survey highlighted two main elements. On the one hand, the initial competition between ministries reflected distinct sectoral interpretations (regional planning, transport, and equipment). Secondly, engineering firms played an important role in the formalization of these strategic orientations. Since 2005, these local and international consultancies (Samarcande, Mac Kinsey, Roland Berger, Valyans...) have been contractually bound to this formalization (Blayac, 2018; Barthel, 2008). They thus attest to their growing role in Morocco in the interplay of actors involved in territorial production. The role of international consultancies (and their associated experts) is probably part of the homogenization of public policy mechanisms.

The governance of the logistics sector in Morocco is based on a dedicated national strategy, which aims to improve the Kingdom's logistics competitiveness and reduce logistics costs from 35% to 20% of GDP by 2030. This strategy is steered by the Moroccan Logistics Development Agency (AMDL), a public establishment created in 2011 and placed under the authority of the Ministry of Equipment, Transport, Logistics and Water.

The Moroccan Logistics Development Agency (AMDL) was created in 2011-2012 to set up a specific governance structure for logistics. This agency is a public establishment with legal

personality and financial autonomy, but under the supervision of the State (Ministry of Equipment). It carries out studies and action plans aimed at developing logistics, in particular by drawing up a master plan. It also proposes improvements to laws and regulations with the aim of stimulating national supply in the logistics sector and managing the profession of logistics professionals. Its financing capabilities enable it to produce expert reports (budget studies) and define (set-up and design) platform projects negotiated with private and public players at national and local level. As such, it is an instrument for identifying, formalizing and negotiating the 3,300 hectares of logistics platforms planned by the national plan up to 2030, as part of the implementation of "application contracts for the development of logistics platforms" at regional level and "horizontal and sectoral application contracts" relating to the improvement of logistics chains. AMDL's role also includes designing training plans for the logistics sector and organizing various events to structure the sector.

AMDL's main missions are to carry out strategic studies and action plans for the development of logistics, to draw up master plans for logistics zones, to create and develop logistics zones, to participate in the development of training plans in the fields of logistics, and to monitor and measure the level of efficiency and performance of logistics services. The AMDL is also responsible for submitting proposals to the government for the improvement of legislative and regulatory texts designed to promote national supply in the logistics sector and organize the profession of logistics operator.

Governance within Morocco's logistics companies therefore depends in part on the institutional and regulatory framework put in place by the AMDL and the supervisory Ministry, which set strategic guidelines, standards, and incentives for the sector's development. Companies must also comply with the requirements of customers, suppliers, partners, and competitors, which influence their organizational, technological and financial choices.

The national logistics strategy is complemented by a national logistics training coordination board (BNCFL), a Moroccan logistics competitiveness observatory (OMCL) and a national logistics standardization commission. This institutionalization of the logistics sector demonstrates Morocco's determination to develop sector management practices (Planel, 2009). It is important to note that this Agency approach is not simply an internal reorganization of existing technical departments within ministries, but the creation of a new structure. In 2016, the average age of the Agency's staff was 33, with 64% coming from the private sector.

The establishment of a new institutional framework for logistics is an important step forward, but the concrete translation of this institutionalization remains difficult to read. Regional development plans for logistics zones are to be translated into specific implementation contracts. The regional plans are presented as part of collective discussions involving the Ministry of Public Works, the Walis and the presidents of the regional councils (known as syndication meetings). The interplay of players involved in these negotiations reveals the composition and changes in the Moroccan political framework, based on strong central power (Wali and Urban Agencies under ministerial supervision) and a still relative but effective rise in autonomy for the Regions, through the Regional Investment Centers (CRI) created in 2002. As a result, logistics is gradually being incorporated into the urban master plans of the various Urban Agencies (SDAU) and into regional development programs (PDR), thereby gradually securing land for this activity (El Khayat, 2002). Although the issue of logistics has been included in regional discussions, the implementation contracts have not yet been signed, except for Greater Casablanca, which has long been identified as an area requiring comprehensive management of commercial flows, coupled with a specific program dedicated to the issue of urban logistics (Casablanca being the pilot area).

The development of logistics platforms in Morocco is largely based on a sectoral rather than a political logic, involving two distinct sets of players. The first involves the State's historical operators, such as the National Railway Board (ONCF), the National Transport and Logistics

Company (SNTL) and the National Ports Agency (ANP). In this way, they are structuring the development of a logistics network in line with the new forces at work in Morocco, mainly around the Tangiers-Casablanca axis. The example of the Zenata platform illustrates the contribution of these national operators to this logistics strategy, which is gradually being labeled by the AMDL. The second set of players is made up of private initiatives characteristic of the dualization of logistics between the activities of major production, trade and distribution players and those of traditional distribution. Observation of the Casablanca region has enabled us to appreciate this dualization (Mareï & al, 2019).

According to a 2019 study by Deloitte, Moroccan companies in the logistics sector predominantly adopt shareholder governance, with a high concentration of power in the hands of the manager or founder. The study also points out that Moroccan companies in the logistics sector face several governance challenges, such as lack of transparency, low levels of professionalization, low involvement of independent directors, and difficulty in attracting and retaining talent.

The study puts forward several recommendations for improving governance within Moroccan logistics companies, including strengthening the role of the board of directors, diversifying its composition and skills, setting up specialized committees (audit, remuneration, nomination), formalizing internal procedures and information systems, developing a culture of ethics and social responsibility, and promoting innovation and digitalization.

According to a study by Deloitte (2019) on the governance of the logistics sector in Morocco aims to analyze the governance practices of Moroccan companies in the logistics sector, identify the main challenges they face, and propose recommendations for improving their performance and competitiveness. The study is based on a survey of 50 Moroccan logistics companies, representing 80% of the sector's sales.

These are the main findings of the study: Most Moroccan companies in the logistics sector are shareholder-owned, with a high concentration of power in the hands of the CEO or founder. Only 20% of companies have a board of directors, and 10% have independent directors. Moroccan logistics companies face several governance challenges, such as lack of transparency, low levels of professionalization, poor involvement of internal and external stakeholders, and difficulties in attracting and retaining talent. Moroccan companies in the logistics sector need to improve their governance to cope with increased competition, growing customer demands, technological and regulatory developments, and the opportunities offered by the national logistics development strategy. The study puts forward several recommendations for improving governance within Moroccan logistics companies, including strengthening the role of the board of directors, diversifying its composition and skills, setting up specialized committees (audit, compensation, nomination), formalizing internal procedures and information systems, developing a culture of ethics and social responsibility, and promoting innovation and digitalization.

The research hypothesis for this study is: ***how is power shared within the logistics sector in Morocco? and what are the relationships of influence between sector stakeholders?***

After discussing governance in the logistics sector in Morocco, we will present some empirical studies realized in the sector and their results.

5. Review of empirical literature on logistics in Morocco

Several empirical studies have examined the relationship between logistics and development. Elhasbi et al. (2014) concluded from their research that territorial governance is a key element in improving the favorable environment for business development in the city of Tangier. Lamgari, S. (2017) deduced that the development of logistics facilities in the Casablanca region is a major challenge for Morocco's economic future. He stresses that territorial governance is a

key element in improving the favorable environment for business development in this region. This research has been reinforced by the work of Debrie and Mareï (2018), who have examined the evolution of the state's sphere of action in Morocco, focusing on a specific area: logistics, considered as the set of activities and operations that enable goods to be transported within and between urban areas. The authors analyzed the implementation of a national logistics policy and its application to two strategic metropolitan configurations in Morocco - Greater Casablanca and Tangier. They also looked at the territorial dimension of logistics issues. The authors concluded that logistics is an important territorial issue for Morocco's economic development.

As for Mir and Balambo (2023), they explain that the governance of the shipper-logistics service provider relationship within the framework of a relational contract fosters logistics innovation. They also point out that building long-term relationships between shippers and logistics service providers can help create a sustainable competitive advantage for the supply chains in which they participate. Similarly, ElKhayat (2015) points out that logistics is a key element in a country's competitiveness. It enables companies to get their products to customers efficiently and cost-effectively. Logistics governance is important to ensure that companies have access to modern, efficient transport infrastructure and quality logistics services. The author also explains that building long-term relationships between shippers and logistics service providers can help create a sustainable competitive advantage for the supply chains in which they participate.

Jami (2018) points out that territorial logistics is a relevant approach to meeting the expectations of investors and activities in the territory. The recommendations and proposals for solutions linked to logistics within the territory seek to provide avenues for research to enable supply chain activities to become part of a sustainable performance rationale for territorial players in response to the region's new challenges (sustainability, resource preservation, attractiveness, flow optimization...).

Chabel (2023) conducted a case study to examine the different organizational forms present in the multimodal transport logistics chain. She also identified the transactional characteristics of the transport logistics chain. She concludes that transaction cost theory can be used to shed light on the essential determinants of the performance of multimodal transport logistics chains run by shipping lines.

Hdidou and Abbad (2018) conclude that dynamic capabilities are a key element in improving the performance of logistics service providers. Dynamic capabilities can be deployed using an iterative approach that involves identifying key resources and competencies, setting up an organizational learning process and implementing a phased deployment strategy.

6. Methodology

6.1 Study field and data:

The aim of our research is to understand and explain the governance deployed by stakeholders in Morocco's logistics sector, through an analysis of the powers of each sector player. The study is based on a qualitative study based on interviews with key stakeholders in the sector. After a series of documentary searches, we were able to identify a multitude of stakeholders. Of these, those mentioned in our report are the best known, the most strategic and are involved in the sector on an ongoing basis.

The stakeholders were then defined and grouped together in such a way that each category of stakeholder was homogeneous and represented a single final stakeholder. As our research and interviews progressed, our choice of stakeholders proved to be the right one.

6.2 Research model:

We have used the headings in the analysis as follows:

Table 1: Analysis

N°	LONG TITLE	SHORT TITLE	DESCRIPTION
1	Secant Marginal	Mrg Sec	Description of the secant marginal (Ministry of Equipment and Transport and the Administration of Customs and Indirect Taxes)
2	Road transport	Tsp R	Description of road transport
3	Rail transport	Tsp F	Description of rail transport
4	Maritime transport	Tsp M	description of maritime transport
5	Air transport	Tsp A	Air transport description
6	Logistics companies	Entrp Log	Description of logistics companies
7	Professional organizations	Org Prof	Description of professional organizations

Source: the authors

Our research model focuses on the relationships of influence between stakeholders in the sector. Is there a relationship of influence between the players mentioned in the table, or is there no influence between them?

6.3 Data processing:

We then conducted several interviews with professionals in the Moroccan logistics sector, with the aim of clearly defining the relationships between the stakeholders in the sector.

After collecting data from the interviews with the people concerned, we processed their answers manually to identify the power relationships between the various stakeholders in the sector, as specified by the interviewees. We then coded each power relationship as shown in the figure below. We then processed the data using Mactor software to determine the results of the study.

7. Results and discussion

Details of the interviews and their abstracts are shown in the table below:

Table 2: Details of the interviews

Interviewee code	interviewee's rank	interview duration	interview abstract
Actor 01	Manager	25 minutes	The stakeholder acts within a macroeconomic framework, so "influence games" in this sense is a big word when it comes to this stakeholder. the interviewee spoke of a player that has just emerged in the sector, a logistics agency. This stakeholder aims to improve the environment of the logistics sector in Morocco and ensure a partnership between the various stakeholders within the framework of the Program Contract. This stakeholder also informed us about the participation of other stakeholders in achieving the above-mentioned objectives.
Actor 02	department manager	17 minutes	This stakeholder aims to offer a wide range of services, as well as to provide its customers with facilities equipped with specialized equipment and human resources, and an appropriate organization.
Actor 03	head of division	19 minutes	This stakeholder aims to guarantee secure warehousing facilities close to customers and to provide logistics services: reception, preparation, storage and distribution.

Actor 04	sales representative	22 minutes	This stakeholder aims to guarantee complete logistics solutions to meet customers' container transport needs, and to ensure the safe transport of goods and logistics platforms.
Actor 05	trainer	27 minutes	The interviewee is optimistic about the future of logistics in Morocco: the new program set up by the Ministry will help to develop industry in Morocco, giving this player the opportunity to set up projects and identify promising markets. It should also be noted that the State has made great efforts to eliminate the informal sector, and with the new highway code. The player is working much more closely with the Chamber of Commerce. This player aims to offer a complete portfolio of services, combining numerous logistics modules to meet customer requirements, and to intelligently optimize the integration of transport, warehousing, and value-added services to facilitate project management.
Actor 06	service representative	33 minutes	This stakeholder works on the training of specialized profiles by holding meetings with companies to see what type of profile they need, so that they can then train according to their requirements. And so this stakeholder plays a collaborative role with the various stakeholders.
Actor 07	director	23 minutes	This stakeholder has shifted from a technical business approach to a performance approach: it wants to reframe its strategy towards a more customer-oriented vision. It also aims to set up a certain number of governance tools that provide a forum for debate and exchange: an investment committee that looks at the expansion or renewal of infrastructures and heavy fixed assets, a management committee that looks at the management of the company's assets, and a management committee that looks at the management of the company's assets. This stakeholder has set up a relatively broad-based expenditure rationalization committee, which includes representatives from all the company's departments.
Actor 08	manager	16 minutes	This stakeholder aims to be the market leader and to encourage companies to outsource inventory management, which is not yet part of the Moroccan corporate culture, and to work closely with local companies to show them the benefits of subcontracting in this field.
Actor 09	president	35 minutes	This stakeholder aims to Develop and strengthen the competitiveness of logistics in Morocco and Promote logistics in Morocco

Source: the authors

Interviews with stakeholders in the logistics sector revealed the following results around the degree of influence of each player on other players in the sector:

Figure 1: MID matrix

MID	Mrg Sec	Tsp R	Tsp F	Tsp M	Tsp A	Entp Log	Org Prof
Mrg Sec	0	4	4	4	4	4	0
Tsp R	0	0	1	0	0	1	0
Tsp F	0	1	0	0	0	1	0
Tsp M	0	0	0	0	0	1	0
Tsp A	0	0	0	0	0	1	0
Entp Log	0	1	1	1	1	0	1
Org Prof	0	1	1	1	1	1	0

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Source: the authors

Influences are rated from 0 to 4 according to the importance of the possible challenge for the stakeholder: 0 : No influence ; 1 : Operating processes; 2 : Projects; 3 : Missions; 4: Existence. We note that the stakeholders have no influence on the secant marginal, whereas they generally exert a strong influence on all the actors.

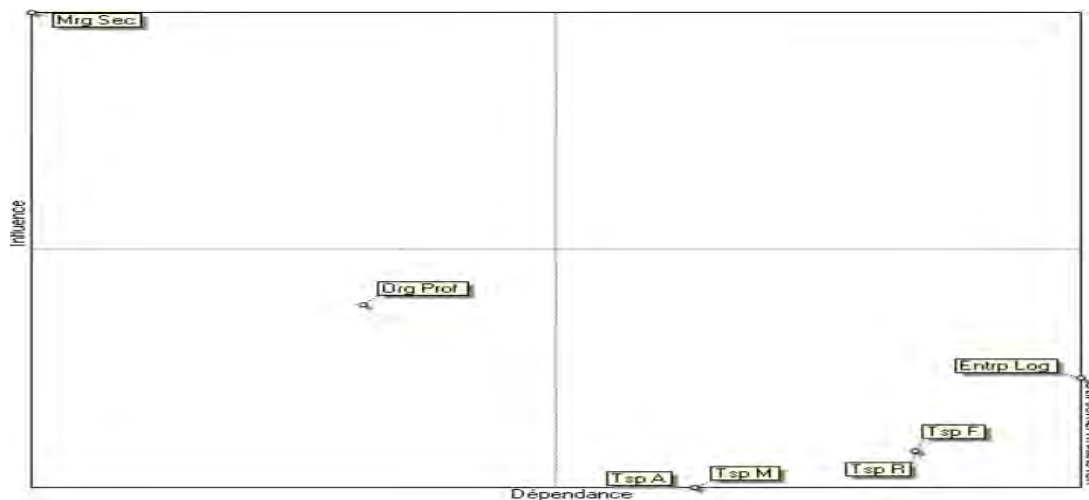
The other stakeholders reveal a collaborative relationship with the others, and some no relationship at all.

4.1 Analysis of influences

4.1.1 MIDI analysis

The following results were obtained from input data processed using Mactor software:

Figure 3 : Influences and dependencies between stakeholders



Source: the authors

Dominant stakeholder, i.e., those who have a strong influence on others without themselves being strongly influenced: this is the secant marginal.

The decisions and projects of this stakeholder are structuring factors for the evolution of the game, as they can act either as factors of inertia or as key factors driving the system; as such, the analysis should consider their orientations within the framework of scenarios rather than as objectives under debate for the game of stakeholders.

Relay stakeholders are those who are both highly influential and highly influenced: in our case, they don't exist, because competitiveness in this sector is almost non-existent.

Dominated stakeholder, those with little influence but who are strongly influenced: these are air, sea, rail, and logistics companies, subject to the influence of the secant marginal.

These stakeholders can only be successful if the others are, and we note that all the companies in the sector are classified in the same category (dominated), and this is explained by the similar strategies of influence carried out by these stakeholder, they all have the same power play and the same strategy as well as complementary (and not competitive) activities in the sector.

The rules of the game that structure the balance of power between stakeholders appear to be weakly constrained.

The evolution of these rules of the game, as well as alliance strategies and the outcome of conflicts, will therefore be decisive for the evolution of the sector.

Only one actor appears to be somewhat **autonomous** (i.e., not very influential, and not very dependent), and that is the professional bodies, because they cannot directly influence decisions concerning the achievement of objectives, nor can they be influenced by decisions made by the sector itself.

The bisector corresponds to the axis of involvement in the game: a stakeholder with little influence and dependence is out of the game; in our case, we're talking about professional organizations.

Conversely, the further a stakeholder is from the origin, the more he or she is involved in networks of influence and has the means to act; in our case, this is the secant marginal.

4.1.2 Current connexity analysis:

Using data from the Mactor software, we can calculate an indicator C_i^* which measures the degree of connectedness of an actor i in the regulation, i.e., the way in which the actor is nested within the game (can he decide on his own?).

Figure 4: Histogram of MIDI Force ratios



Source : the authors

Three groups of stakeholders can be distinguished according to the degree to which they are intertwined or untangled in the game:

- a single actor who is strongly interwoven in the game, with an above-average connexity index (equal to 1), constitutes the set within which alliances, conflicts and functional evolutions would be the most important. This is the key stakeholder for understanding the game. It's the secant marginal.

One stakeholder, with a connectedness index of 1.4, is moderately solicited in this game. It concerns professional organizations.

Five "out-of-regulation" stakeholders in this game (between 0.2 and 0.3): road, rail, sea, air, and logistics companies.

4.2 Analysis of objectives

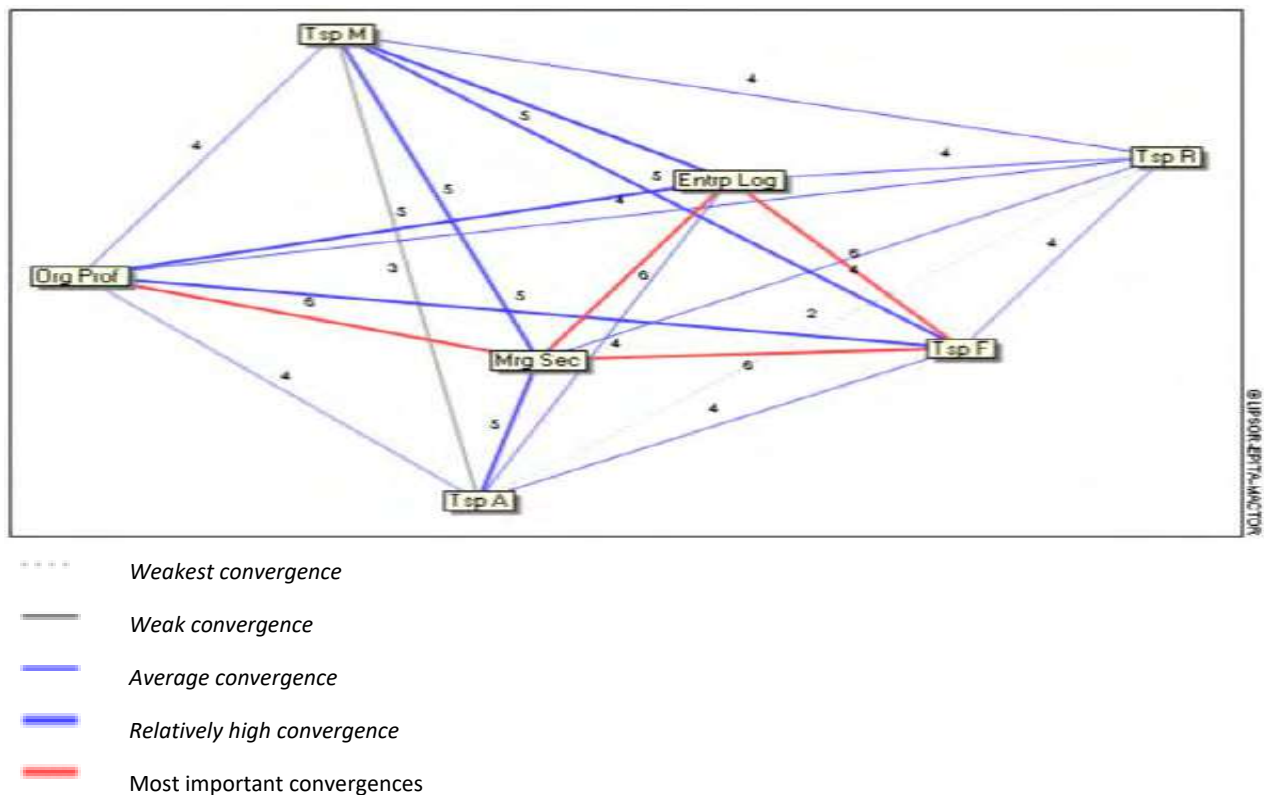
4.2.1 Elaboration and interpretation of the simple convergence matrix between stakeholder in graph form (CAA of order 1).

From this graph, we can conclude that there are four stakeholders with highly convergent objectives: the secant marginal, professional organizations, rail transport companies and logistics companies. The other stakeholders have relatively high levels of convergence, which can be explained by the fact that all the objectives revolve around the development of the logistics sector in Morocco. The weakest convergences characterize the relationship between air and road transport companies, and this is due to the relative divergence of their activities.

Two objectives that are close, in terms of the structure of the stakeholders' game, have the same positioning vectors from the stakeholders' point of view: the stakeholders in favor are identical, as are the stakeholders opposed to achieving the objective. Two similar objectives will often be

negotiated as a "package", as the efforts to be undertaken will therefore be more limited for the stakeholders promoting them.

Figure 5: Graph of convergences between stakeholders of order 1



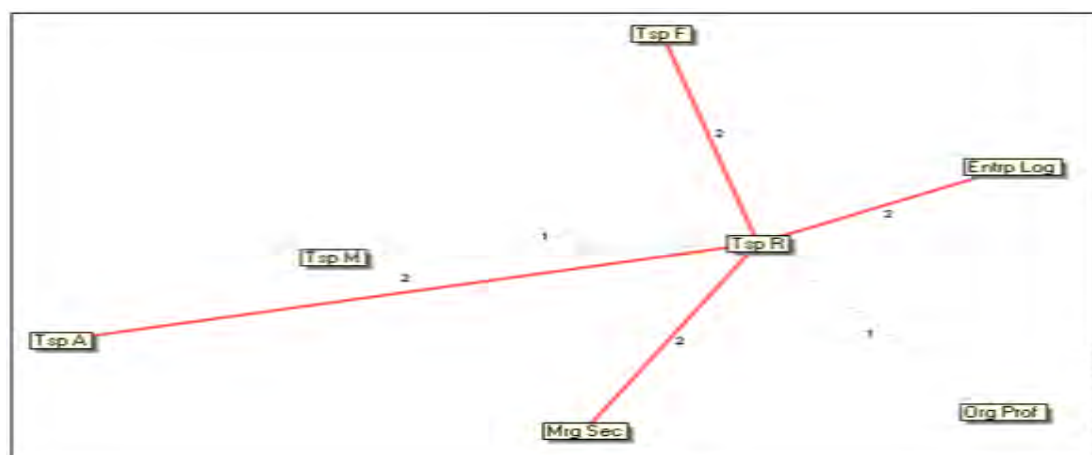
Source: the authors

On the other hand, two distant objectives have inverted positioning vectors: stakeholders who are "allies" on one are "enemies" on the other, and vice-versa. It is very difficult to promote these two objectives in parallel: arbitration is necessary.

Finally, the analysis highlights the main principles and risks of the various global commitments (or strategies).

4.2.2 Elaboration and interpretation of the simple divergence matrix between stakeholders in the form of a graph (DAA of order 2)

Figure 6: Graph of convergences between stakeholders of order 2*



*the meaning of the colors is similar to graph N° 5

Source: the authors

The second-order stakeholder divergence graph represents the divergence links between stakeholders. It helps identify potential alliances and conflicts. The links express the rate of divergence calculated from the 1DAA matrix.

It is worth noting from this graph that the greatest divergences are between air, road and rail transport companies, the secant marginal and logistics companies.

8. Discussion:

The Moroccan Logistics Development Agency has developed an ambitious strategy to strengthen logistics competitiveness by 2030. This strategy aims to minimize the logistics costs associated with urban logistics services, and to contribute to the Kingdom's sustainable development by reducing greenhouse gas emissions and enforcing restrictions on vehicle parking in narrow streets.

To harmonize the efforts of public and private stakeholders in urban goods mobility, an appropriate action plan needs to be put in place, addressing questions related to research objectives and timetable, desired results, means, costs, stakeholders, and monitoring indicators. Each action must be evaluated to determine whether the desired effect has been achieved.

Our paper deals with the different players involved in the logistics sector in Morocco. The results of our study reveal that the dominant stakeholder, who has a strong influence on the others without being strongly influenced, is the marginal secant. The decisions and projects of this stakeholder are structuring factors for the evolution of the game, as they can act either as factors of inertia, or as key factors in steering the system. The analysis must consider their orientations in the context of scenarios, rather than as debated objectives of the game of stakeholders.

Other stakeholders include the dominated stakeholders, such as airlines, shipping, rail, and logistics companies, who have little influence but are strongly influenced by the secant marginal. The only actor that appears to be somewhat autonomous is that of the professional organizations, as they cannot directly influence decisions concerning the achievement of objectives or be influenced by decisions taken by the sector itself.

The study also shows that the rules of the game that structure the balance of power in governance between stakeholders, which appear to be weakly constrained. The evolution of these rules of the game, as well as alliance strategies and the outcome of conflicts, will be decisive for the evolution of the sector.

9. Conclusion:

Based on the Mactor's outputs, we can deduce that the overall degree of convergence between stakeholders on the set of objectives, as formulated and retained, is high; divergences between stakeholders in relation to the different objectives are relatively low, and this leads to the adoption of strategies of collaboration and alliance between the different stakeholders. However, the existence of a very dominant stakeholder, the marginal secant, forces the other stakeholders to negotiate the decisions taken in this sector, such as the development of a national network of multi-flow logistics zones (ZLMF), optimization of goods flows (energy flows, national distribution, domestic agricultural flows, construction materials, import/export flows, textile and handicraft flows, industrial goods, agricultural export products). The strategy pursued by the secant marginal and other stakeholders is one of negotiation. Almost all stakeholders adopt a strategy of alliance and collaboration, because they are all convinced that the evolution of the rules of the game, as well as alliance strategies and the results of conflicts, will be decisive in achieving common objectives.

Confrontation and opposition strategies are almost non-existent in the sector, and this is explained by the fact that the stakeholders have complementary activities, and that they all want to achieve all the sector's objectives, improve it, and strengthen its competitiveness.

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