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THE IMPACT OF LOGISTICS CAPACITIES ON THE LOGISTICS PERFORMANCE OF LSPS: RESULTS OF AN EMPIRICAL STUDY

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# THE IMPACT OF LOGISTICS CAPACITIES ON THE LOGISTICS PERFORMANCE OF LSPS: RESULTS OF AN EMPIRICAL STUDY

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*Keywords:* logistics capacities, customer satisfaction, logistics performance, international trade, logistics skills. *Abstract:* This paper has a dual objective, to specify the logistical capacities of Moroccan Logistics Service Providers (LSPs) and to understand the process by which these capacities contribute to the logistical performance of LSPs. Methodologically, we used the qualitative approach based on a sample of sixteen LSP. The results of this research show that the main logistical capacities of Moroccan LSPs are flexibility and innovation, which respectively abound in reactivity/proactivity and technological innovation / administrative innovation. Similarly, "customer response" appears to be a purpose that overlaps with logistics performance. Thus, this variable mediates between flexibility and logistics performance. This study also tries to analyse the emergence of new moderating variables, particularly "logistics skills," which strengthen the relationship between innovation and customer response, and "communication with employees" as a support for maintaining performance logistics.

# 1 Introduction

Over the past decade, the actors of the Moroccan logistics community have undergone a strong change in terms of the services offered to compete with the demands of the ordering companies. Thus, the use of Logistics Service Providers (LSP) constitutes an important lever of competitiveness. To this end, logistics service providers (LSP) are placed at the center of public guidelines in order to support the actors of the Moroccan logistics community in the development of their service offer and to provide them with the skills and capacities to serve supply chains better and meet customer requirements in terms of flexibility and innovation.

Consequently, the logistics market has undergone considerable development marked not only by the multiplication of logistics operators but also by the variety of the range of offerings ranging from basic transport services to full management and management of the customer's logistics and supply chain function. However, the pace of development of the logistics service sector in Morocco is considered low and well characterised by its youth, as evidenced by the timid warehousing outsourcing rate of 14%, which leaves many challenges to be overcome by companies. Moroccan logistics operators in order to capture more business and increase their performance.

In this context, determining the logistical capacities of Moroccan LSPs and analysing their contributions to the performance of LSPs are at the center of the concerns of the academic community in order to support them in the development of their service offer and to equip them with skills and capabilities that enable them to serve supply chains better and meet customer demands in terms of flexibility and innovation. In this perspective, the following problem arises: how are logistics capacities reflected on the performance of LSPs? The breakdown of our problem allows us to identify two research questions to which we will seek to provide answers in this paper: What are the logistical capacities of the field of activity of Moroccan LSPs? How would these capacities have contributed to strengthening logistics performance?

# 2 Literature review

The analysis of the literature aims to identify and analyse the importance that researchers attach to logistics capabilities and the impact that these have on the logistics performance of companies in general and LSPs in particular. Concerning the impact of logistics capacities on the logistics performance of LSPs, we were able to identify 3 levels relating to state of the art: innovation and logistics performance, flexibility and logistics performance, customer response and logistics performance.

### 2.1 Innovation and logistics performance

Logistics innovation capability can be defined as a new and useful idea, procedure or practice in logistics practices that differ from the current practices of the company and competing companies. This capability is of crucial importance for the success and survival of LSPs in a dynamic environment [1,2]. In this sense, Wagner [3] point out that LSPs can take advantage and opportunities that arise in the market, generating innovations in logistics. It concerns the practice of renovating business processes as well as the creation of new markets to meet untapped needs.

The literature highlights two dimensions of innovation capacity: technological innovation and administrative



innovation. Technological innovation is the ability to adopt the technology by introducing technological changes related to the nature of the company's main activity to offer a new service [4,5]. It is also designed by d other researchers as a managerial innovation [6]. On the other hand, while administrative innovation includes the organisational structure and administrative processes, it is indirectly linked to the basic activities of the organisation and more directly to its management [7].

The capacity for innovation impacts the logistics service of the LSPs by strengthening the long-term relationships with the customers, which makes it possible to make the customer loyal, which in turn generates the acquisition of the advantage of competitiveness and maintaining logistics performance [8]. Moreover, the capacity for innovation, which aims to research and integrate customer expectations into the service provided, is the first step towards logistics performance for LSPs [9].

Indeed, the capacity for innovation is considered by many researchers to be a decisive determinant of the logistics performance of LSPs [2,10,11]. Similarly, Grawe and Kandampully [12,13] asserted that the capacity for innovation, which relies on the use of technology and other resources, fully contributes to achieving logistics performance.

# 2.2 Flexibility and logistics performance

Flexibility is defined as the capacity of a logistics system to adapt in a proactive and reactive way its configuration, the objective of which is to eliminate the market fluctuations [14]; it corresponds to the ability of LSP to respond effectively to market fluctuations and customer requirements [15]. Logistical flexibility is intended by Judge [16] as the capacity for organisational change, which conditions the effectiveness with regard to the implementation of a permanent change.

Indeed, in a supply-chain context, flexibility has two dimensions, reactive and proactive [17]. Responsiveness consists of responding to the uncertainties generated by the supply chain, the notion of uncertainty is linked to the lack of environmental information, making it difficult to predict the impact of decision-making on the organisation [18].

Flexibility significantly impacts logistics performance as it supports the logistics performance of LSPs in terms of customer response, efficiency and quality of service [5]. Moreover, it is often retained in the literature as being a fundamental variable for maintaining competitive advantage [19]; it thus serves to improve the competitiveness of the LSPs.

In the same vein, Anand [20] claims that logistics service flexibility is considered to be a predictor for logistics performance. Moreover, LSPs that hold the logistics flexibility capability can gain a competitive advantage and are often able to achieve logistics performance [21,22]. Logistics flexibility is, therefore, a determining variable for the achievement of logistics performance for LSPs. Especially in a dynamic environment, it depends on the speed of response to customer requests at the best prices [23-25].

# 2.3 Customer response and logistics performance

In the service sector, the customer is the central element, and his satisfaction determines the success of LSP [26]. Satisfaction is linked to very particular attention, such as an expectation, a product/service or an experience. LSPs that develop customer responsiveness are better prepared to meet the diverse needs of customers, offering them varied services accordingly. Therefore, to hold a competitive advantage, the development of customer response capacity is achieved by increasing the time, quality, and price of the services offered [27,28].

Customer satisfaction capability is positively related to performance. LSPs that maintain this capability are often able to maintain the existing customer base and attract new customers, so they will be able to meet the particular needs of the market [29]. According to Lai [30], LSPs with better service capability are better established to cope with customers' diverse service needs and achieve better service performance. The ability to satisfy the customer is, therefore, the ability of LSPs to create and allocate resources to satisfy the logistics needs of their customers and consequently ensure better logistics performance.

In the same sense, Zhao [29] concludes that the ability to satisfy the customer is significantly linked to performance. These conclusions are supported by Ching-Chiao Yang [31], stating that meeting customer expectations in the service sector positively impact logistics performance and encourages customer loyalty.

In this sense, we can synthesise that several authors have mentioned the problem of evaluating the contribution of logistics capacities to logistics performance. Logistics capabilities are essential for achieving logistics performance and creating added value for LSP customers. Admittedly, research work confirms that logistical capacities, in this case, flexibility, innovation and customer response, contribute to the performance of LSPs, only the modes of influence that differ from one researcher to another.

However, the interest of companies for this issue and the need to deepen it still remain valid, which leads us to identify these capacities empirically and evaluate their impact in the context of Moroccan LSPs.

# 3 Methodology and sampling

The research methodology used is purely related to the object of study. While the size of the sample, the procedures for processing analysing the data, and the device the researcher should use are intended to ensure the quality of his results.



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### 3.1 Methodological approach and data processing techniques

We adopted a qualitative study by induction approach and positioning in an interpretive paradigm. It is about the determination of the "how" relationship between logistics capacity and performance of LSP.

As for the data collection method, we used the semistructured interview, which constitutes a privileged instrument in qualitative research since it allows obtaining a good quality of information. Our research questions guide the data analysis. However, although the research objectives initially influence the analysis, the results come directly from the analysis of the raw data and not from "desired answers"[32].

The data collected by our case studies are thus coded and categorised "manually", making a clean sweep of any prejudices. We thus proceeded successively to an initial coding, then to multiple coding and finally to a thematic coding [33]. The subjects identified in these studies allowed us to return to theory and literature review. This back and forth between the field and the theory allowed us to generate proposals and to conceptualise our conceptual model.

#### 3.2 Sampling

Several sampling techniques constituting widely varying sample sizes are used in the qualitative study. Thus, we refer to the guidelines of Gumucio [34,35], according to which two criteria must be highlighted to justify the sample: the size of the sample and the context of the study.

The sample size corresponds to a gradual construction to know when the researcher should stop [36]. The number of cases studied will stop when there is saturation. This semantic saturation is reached when the new cases only repeat what has been said by the others [37]. Thus, we were satisfied with a sample of 16 cases allowing us to meet this saturation criterion.

The choice of study cases was made in a nonarbitrary and impartial manner to ensure that the selected study cases responded to several criteria. Our convenience sample is for LSPs in the logistics services industry operating nationally and internationally to procure various information. In addition, the use of actors of different qualities is considered, on the one hand, as sources of information to understand the logic and sectoral trend of the LSP studied. Twenty-two LSPs, of which we selected only sixteen given the saturation criterion, agreed to participate in the survey by expressing their interest in sharing their experiences with us. We have assigned codes to the different analysis units to guarantee the anonymity of the interviewed actors.

Code	Activity area	Creation	Quality of interviewees	Experience
LSP1	Logistics service provision	2007	Park manager	7 years
LSP2	Logistics service provision	1937	Tryears port manager	11 years
LSP3	Logistics service provision	1997	Tryears it import/export	5 years
LSP4	Logistics service provision	2011	Tryears port manager	6 years
LSP5	Logistics service provision	2012	Tryears port coordinator	4 years
LSP6	Logistics service provision	1982	Operation manager	9 years
LSP7	Logistics service provision	2009	Operations manager	2 years
LSP8	Logistics service provision	2007	Tryears it and tryears port agent	7 years
LSP9	Logistics service provision	1996	Tangier agency manager	5 years
LSP10	Logistics service provision	2011	Warehouse manager	5 years
LSP11	Logistics service provision	2009	Internal freight forwarder	2 years
LSP12	Logistics service provision	1994	International tryears port manager	9 years
LSP13	Logistics service provision	1999	Tryears port manager	2 years
LSP14	Logistics service provision	2001	Customs declarant	9 years
LSP15	Logistics service provision	1980	Tangier warehouse manager	4 years
LSP16	Logistics service provision	2003	Planner	8 years

Table 1 Characteristics of the ISP sampled and of the interviewees

### Data processing and analysis 4

#### 4.1 Thematic coding

We conducted triple coding, initial coding, grouping, and thematic coding. The thematic codification, through which we affiliate a synthetic concept to each grouping [33], represents the results of our coding. The following table lists a summary of our triple coding.

According to this grid, the grouping set is granted thematic codes representing the results of our coding. There are four-axis: "Flexibility", "Innovation", "Customer response" and "Logistics performance".

Indeed, flexibility refers to proactivity and reactivity; Innovation combines administrative innovation and technological innovation. Customer Response includes three categories such as service quality, service time,



service price, Logistics Performance. On the other side, by identifying three-axis categories, namely differentiation, effectiveness and efficiency.

Table 2 Summary of Thematic coding						
Verbatim	Codes	Grouping	Thematic coding			
You don't just adapt to environmental changes these days, but sometimes you have to create that change.	Proactivity	Adaptation	Florikility			
Sometimes customers change their delivery plan, and our business has to adapt in return.	Reactivity		Flexibility			
Ve adopt the capacity for innovation to offer and benefit Technological innovation Creativity		Innovation				
Reconfigure operations so that they are adapted to the new criteria.	Administrative innovation	Creativity	millovation			
The quality of delivery is also very important.	Quality of service	Customer satisfaction	Customer response			
The delivery time is a fundamental factor in responding to the customer.	Service time					
Price has always been an element of performance for companies.	Service price					
This differentiation allows us to achieve and capture a competitive advantage in the market.	Differentiation	Derfer	Logistics performance			
Achieve our logistics objectives, and be efficient.	Efficacity	Performance				
It is with efficiency, and this is the result of our service.	Efficiency					

# 4.2 Inductive

After the data processing and the coding of the verbatim of the studied cases, we present the inductive ones taken from LSP. Inductive information will allow us to bring out other variables and identify the relationships between the different axes.

Table .	31	Inductive	lessons

Codes	Emerging relations	Examples	Observations	
Flexibility	Reactivity / Customer response	be in some reactive cases and other proactive cases. Flexibility consists of	The two dimensions of the "flexibility" capacity are intended to meet a diversified demand from customers. Therefore, customer response is a goal of LSP insofar as logistics	
lity	Proactivity / Customer response	reconfiguring the logistics function to meet market demands	capacities impact customer satisfaction. Customer response is a mediating variable between flexibility and logistics performance.	
Innov	Administrative innovation / Customer response	Also, the information system that we are putting in place helps us comply with customer instructions regarding delivery times and delivery quality and, therefore, helps us improve our performance.	The two dimensions of innovation impact customer response, especially in terms of price, time and quality of service. Customer response is, therefore, a mediating variable between innovation and performance.	
Innovation	Technological innovation / Customer response	We are seeing the effects of technology that allows us to reduce the costs of services and offer them to the market at a competitive price. Which positively influences our logistics performance		
Logistics skills	Logistics skills / Innovation / Customer response	the necessary skill, reduces costs and helps achieve goals () Technological skill is	Logistics skills facilitate the handling of innovative tools for customer satisfaction. Therefore, logistics skills is a moderating variable that strengthens the relationship between innovation" and "customer response.	



Many additional lessons were identified, enabled by the inductive approach adopted in this research work. Indeed, in several cases, "customer response" appears as a purpose that overlaps with logistics performance. Thus, this axe is a mediating variable between flexibility and logistics performance.

Analysis of what the interviewees said allowed us to deviate from the role of some variables and identify other variables that have not yet been highlighted in the literature. Thus, the inductive approach of LSPs can be summarised as follows:

Regarding the change in the role of some variables, the customer response is no longer a logistical capacity in our study context. It is rather a mediating variable located between, on the one side, flexibility and logistical performance and, on the other side, between innovation and logistics performance.

For the new emerging variables, it is linked to "logistics skills" which has a moderating role between innovation and customer response and, and to "communication with employees as a support for maintaining logistics performance which is, here, a moderating variable that reinforces the relationship between logistics performance and the other variables, the "customer response".

## **5** Discussion of the results

### 5.1 Logistics capacities

The logistical capacities of our sample are three in number. Again, it is about flexibility, innovation and customer response.

**Flexibility:** Flexibility is a capacity that the company has to adapt to changes in the competitive environment and also to customer requirements in terms of delivery times. Through this ability, the company acts, as the case may be, reactivated or proactively in the face of any change. In this framework, the leader of an LSP assures us that "The behaviour of company can prove to be positive in some reactive cases and negative in other proactive cases (...). Flexibility consists of reconfiguring the logistics function to meet the market's demands" (LSP1).

According to the literature, flexibility is defined as the ability of a logistics system to proactively and reactively adapt its configuration, the objective of which is to cope with market fluctuations [14-37]. It corresponds to LSP's ability to respond effectively to market fluctuations and customer demands [15].

Consequently, the way they are perceived, the two dimensions of flexibility, in this case, responsiveness and proactivity, and their purposes among the LSPs in our sample, corroborate the definitions and objectives noted in the literature.

**Innovation:** Innovation among the LSPs in our sample revolves around two poles, the administrative pole and the technological pole. According to one respondent, "The innovation concerns the innovation of the service offered, the innovation of the logistics strategy, even innovation in

terms of logistics means (...) company has invested many years in technological solutions, and especially RFID for the management of the inputs and outputs of the "LSP3" warehouse (LSP3). Through these two dimensions, in this case, administrative innovation and technological innovation, innovation concerns the whole company; this is confirmed by a leader who states that "these innovations affect almost all departments of the company. The materials and procedures are good examples" (LSP4).

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The two dimensions of innovation are highlighted by returning to the literature, given their importance. For technological innovation, Daft [4] considers it to be the introduction of technological changes linked to the nature of the firm's main activity. Therefore, according to Yang and [5-38], it is the ability to adopt a technology to offer a new service. As for administrative innovation, it encompasses the organisational structure and administrative processes. It is indirectly linked to the basic activities of the organisation and more directly linked to its management [7-39]; this is also called managerial innovation [6].

Thus, LSPs have opted for changes in the way managers' work is done and have introduced technological changes to adapt to the sector's dynamism.

**Customer response:** Considered an important capability in the context of Moroccan LSPs, customer response is a company's ability to meet customer requirements in terms of three attributes, quality, price and lead time. An interviewee announces to us this prospect "The response to the customer is quite an important logistical capacity. The purpose of all LSPs is to respond to the customer, in terms of price, quality and also deadlines. "(LSP3). Customer response is assessed in terms of customer expectations. The response to their expectations confirms the level of satisfaction. This is why, according to the interviewees' answers, the customer response refers to their satisfaction.

The mobilisation of a set of parameters to satisfy customers, the parameters are thus antecedents to the customer response, this corroborates the words of another LSP who affirms that "we take into account all the parameters to meet the customer whether in terms of quality of service, time or even price." (LSP5). Therefore, customer response, although it is considered a logistical capacity, other parameters are crucial to achieving it; this is the reason why it is considered a finality in our sample.

Regarding the literature, by focusing on the service sector, the customer represents the central element and his satisfaction conditions the success of LSP [26]. So customer satisfaction is an answer, and it is always linked to very specific attention, such as an expectation of a product/service. This response occurs after service use [39].

Therefore, the customer response even refers to customer satisfaction in terms of price, quality and time. It metamorphoses our sample and corroborates the theoretical contributions of the concept.



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### 5.2 The contribution of logistics capacities in Moroccan LSP

#### 5.2.1 Flexibility and customer response

Flexibility largely affects customer satisfaction, in the context of Moroccan LSPs, in terms of customer response. Thus, to respond to unforeseen requests, the urgency requiring a rapid reaction, flexibility allows the company to respond quickly, which allows it to avoid the delay, although the latter could arise from people outside the company, the customer or the sender. Having said that, according to one executive, "We get very special requests from our clients, but we try to meet them by dealing with different clients with specific needs. "(LSP7)

Through its flexibility, the LSPs demonstrate the ability to manage the emergency situation often encountered. This results in customer satisfaction and therefore demonstrates the improvement of the offer to customer response. This corroborates the words of another interviewee who states: "if we can adapt quickly, this will also allow us to meet the needs of customers in an efficient manner" (LSP3)

Flexibility stimulates customer response in terms of delivery time, price and quality of service, which refers to the testimony of the manager who sees that "This adaptation consists in making the service capable of meeting the specific need of the customer" (LSP4)

Regarding the literature, Wright [40] argues that flexibility is dependent on LSP's ability to reorganise its resources and activities to meet customer demand quickly. Hence the following first proposition:

# P1: LSP flexibility has a positive and significant impact on customer response.

### 5.2.2 Innovation, customer response and the moderating role of logistics skills

As highlighted by Moroccan LSPs, technological innovation and administrative innovation are decisive capacities for the expectation of an objective that is transforming the response of customers. Customer response, which is dictated by the establishment of innovative capacities that are mobilised for previously defined objectives, appears to be a purpose that overlaps with logistics performance. An interviewee said this framework: "We do not miss the opportunity to implement such an innovative procedure that can promote and improve customer service and meet their expectations. For example, innovation in terms of work procedure, innovation in terms of control procedure" (LSP1). Therefore, innovation is considered an external element to the extent that it consists of better serving the customer (principal).

The analysis of the comments of the respondents, taken from our sample, allowed us to deviate from the role of "customer response" and to identify other variables that have not, so far, been highlighted in the literature.

Regarding the change in the role of the variable "customer response", although some authors, in this case, have considered it as a capacity [29,30], customer response is a goal of other logistical capacities (flexibility and innovation) in our context.

For the new emerging variables, this is "logistics competence", a moderating variable that strengthens the relationship between innovation and "customer response" in the case of our study context. We bring this perspective to life in the words of one respondent who said that "if you don't have the capable and competent people to use this technology, it will be a failed investment or rather a divestment" (LSP16).

Logistics skills facilitate the handling of innovative tools for customer satisfaction. This corroborates the statements of the interviewees who state that "The use of technology provided that the user has the necessary skill, reduces burdens and help achieve objectives (...) Technological competence is necessary for the technology to be used to logistics performance" (LSP13).

Moreover, the effects on customer satisfaction are greater if these so-called skills are well mastered. "I think it will be wide if our staff and especially the technicians know how to handle it quickly" (LSP14). Moreover, for the proper handling of technology, training must be provided on the best method, which is confirmed in case 16: "to use it and sometimes you have to write for each user the detailed steps to follow to carry out these activities". (LSP16)

According to the literature, the capacity for innovation is of critical importance to the survival of LSP in a dynamic environment [1]. By treating its contributions, highlights the customer's place as a finality[9], the customer is the central element and his satisfaction conditions the success of LSP in the service sector. To meet its expectations, Yang [5] has shown that logistics innovation is positively linked to operational efficiency and quality of operational service. Grawe [12] argues that innovation in logistics relies on technology and other related resources to meet customer demands.

As a result of the analysis of the spreading remarks and the theoretical foundations, the capacity for logistics innovation reflects the ability of LSPs to develop and offer new logistics solutions to meet the needs and wishes of customers in an environment of more in addition to dynamic, logistics skills play a moderating role in this relationship. Hence our second following proposition:

# P2: Logistics innovation has a positive impact on customer response, logistics skills play a moderating role during this relationship.

### 5.2.3 Customer response, logistics performance and the moderating role of customer communication

Customer response inspires confidence and enables long-term customer engagement because, according to one Acta logistica - International Scientific Journal about Logistics



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leader, "Responding effectively to special requests increases the confidence of our customers and solicits us for all their operations and most importantly. make a longterm commitment with us" (LSP1). As a result, when trust is built, and customer engagement is sustained over the long term, LSPs achieve a goal of total logistics service performance. This corroborates the words of another leader who says that "when customers trust us and engage with us, we are very likely to meet our goals of performing and growing afterwards. (LSP13).

Thus, achieving logistics performance is a linear process that goes from customer response, trust and commitment, and consequently, the service's overall performance. This performance is reflected in the return of satisfaction in terms of customer engagement and the building of strong customer trust. What is approved by one respondent: "Logistics performance is measured by the degree of customer satisfaction and by the degree of achievement of the objectives of each department" (LSP15).

The literature has highlighted the expected return of the customer in terms of his satisfaction. In the service sector, customer satisfaction is recognised as a decisive factor in maintaining and consolidating long-term business relationships [29]. The customer is thus the central element, and his satisfaction conditions the success and performance of LSP [26]. Therefore, customer satisfaction is achieved when logistics service performance meets or exceeds customer expectations [30]. Ching-Chiao [31] support this idea by arguing that one of the most important elements is the service sector and the maintenance and development of the long term relationship with the customer.

The theoretical foundations which corroborate the elements drawn from the respondents' comments make it possible to identify the contributions of the customer response on logistics performance. In this perspective, we find that customer response impacts logistics performance.

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However, maintaining performance requires the maintenance of communication to ensure any volatility related to the effectiveness of the service to the customer. According to one interviewee, "The fact that there is an exchange of information with customers that we can know what they need and respond in return, this is how we can achieve performance" (LSP15). This observation is also confirmed by other respondents who tell us that "it takes information for it to contribute to our performance" (LSP16).

Therefore, maintaining communication with customers is decisive in ensuring an overall performance that meets all of their expectations. It even ensures the sustainability of the relationship according to the perception of the leader of the LSP15 who sees that "Maintain a communication with the customer service customers to try to work with them as long as possible" (LSP15). Thus, customer communication plays a moderating role by strengthening the relationship between customer response and logistics performance.

The study demonstrates the existence of a clear twoway relationship between customer response and the logistics performance of Moroccan LSPs. Furthermore, customer communication helps maintain this relationship. Therefore and after this discussion, we put forward the following proposition:

P3: There is a significant and positive relationship between customer response and logistics performance, customer communication has a moderating role during this relationship.

By way of conclusion and conjugation of our proposals, we put forward our following conceptual model:



Figure 1 Conceptual model of research

# 6 Conclusion, limits and perspectives of the research

The purpose of this research is to understand the phenomenon, or even look for the "How", as mentioned in our problem, of the contribution of LSP's logistics capacities to logistics performance. This requires an indepth qualitative approach.

The results of this research show that the main logistical capacities of Moroccan LSPs are flexibility and innovation, which respectively abound in reactivity/proactivity and technological



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innovation/administrative innovation. Similarly, "customer response" appears to be a purpose that overlaps with logistics performance. Thus, this variable mediates between flexibility and logistics performance.

This study also highlights the emergence of new moderating variables; on the one side, "logistics skills" strengthen the relationship between innovation and customer response and, on the other side, "communication with employees" as a support for maintaining performance logistics.

By this recourse to a qualitative study, we can accept that the main limitation is relative to the size of the LSP sample which. Moreover, the research to understand this new phenomenon could be put forward as a strong argument for resorting to the qualitative approach. In addition, the second heavy limit on such a research strategy is a bias of subjectivity. Admitting this posture indeed requires thinking about a palliative methodology.

The research is based on a relatively limited number of LBPs. Therefore, although the sixteen cases are chosen, although selected to meet certain basic criteria, the perception of logistics capacities as well as their linkage with logistics performance differ from one company to another. It is, therefore, possible that the selected LSPs exhibit some biases.

Given the framework of the results of this work, it is essential to identify the way for future research which would apprehend the contribution of the logistics capacities of LSP with regard to the theoretical models relating to different contexts. It, therefore, seems essential to broaden the context of the process beyond the multiple case studies. The objective would therefore be generalisation allowing a real gain in objectivity.

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# **Review process**

Single-blind peer review process.