

## **How effective logistics affect customer satisfaction : A literature review**

### **L'apport d'une logistique performante sur la satisfaction des clients : Une revue de littérature**

**ENNAGAD SAFAA**

Docteur

Faculté des sciences juridiques économiques et sociales-Agadir Université Ibn Zohr  
Laboratoire d'Etudes et de Recherches en Economie et Gestion (LEREG)

Maroc

**safaaennagad@gmail.com**

**Date de soumission** : 07/02/2023

**Date d'acceptation** : 08/03/2023

**Pour citer cet article** :

ENNAGAD. S. (2023) « How effective logistics affect customer satisfaction : A literature review », Revue Française d'Economie et de Gestion «Volume 4 : Numéro 3 » pp : 295 – 309.

Author(s) agree that this article remain permanently open access under the terms of the Creative Commons Attribution License 4.0 International License



## Abstract

A satisfied customer is the assurance of having new ones. Indeed, the customer is a major player in the company, occupying an important place in the economic development of any entity and ensuring its sustainability. Having become aware of the importance of this phenomenon, companies are increasingly turning to efficient logistics.

The aim of this article is to show how efficient logistics can improve customer satisfaction by ensuring fast, reliable and accurate delivery of ordered products. Efficient logistics can help to reduce delivery times, minimise order errors and ensure the availability of products in stock. All this helps to meet customer expectations of service quality and reliability, which can increase their satisfaction and loyalty to the company.

The present work explains, through a literature review, a logic that allows us to focus on the concept of logistics performance and its contribution to customer satisfaction, since all efficient logistics have a positive impact on customer expectations.

**Keywords** : "customer satisfaction ; logistics performance ; effective ; consumer expectations".

## Résumé

Un client satisfait, c'est l'assurance d'en avoir de nouveaux. En effet, le client est un acteur majeur de l'entreprise, il occupe une place importante dans le développement économique de toute entité et assure sa pérennité. Ayant pris conscience de l'importance de ce phénomène, les entreprises se tournent de plus en plus vers une logistique performante.

L'objectif de cet article est de montrer l'apport d'une logistique performante sur l'amélioration de la satisfaction client en assurant une livraison rapide, fiable et précise des produits commandés. Une logistique efficace peut contribuer à réduire les délais de livraison, à minimiser les erreurs de commande et à garantir la disponibilité des produits en stock. Tout cela permet de répondre aux attentes des clients en matière de qualité de service et de fiabilité, ce qui peut augmenter leur satisfaction et leur fidélité envers l'entreprise.

Le travail présent explique à travers une revue de littérature une logique qui permet de mettre le point sur le concept de la performance logistique et son apport sur la satisfaction client car toute logistique performante impacte positivement les attentes des clients.

**Mots clés** : « satisfaction client ; performance logistique ; développement économique ; pérennité ; attentes »

## Introduction

Logistics is a set of measures, an integrated process that each entity will have to take to get its products or services to market. It takes products from the design stage, before they are even manufactured, for delivery to the end customer, whether around the corner or thousands of miles away.

Indeed, logistics is a discipline eagerly sought after by companies because of the benefits it brings, and it has largely earned its strategic position in various organisations.

Nowadays, logistics management has become a tool for competitiveness and performance for industrial and commercial companies that want to improve and sustain their competitive advantages. Tixier D., Mathe H. et al., (1996). In fact, good logistics management will enable a company's resources to be used better, whether in terms of time, human or technical resources, or even financial resources. The management of these resources can be optimised by coordinating them as much as possible.

Nevertheless, through the experiences of companies, the logistics function has been able to acquire a special place within large firms on an international scale, proving that its contribution goes far beyond the simple framework of execution and that it can influence the global competitiveness of companies by reducing costs and increasing earnings and profits. Paché G., Spallanzani A., (2007)

By adopting a flow control approach, the logistic function is cross-cutting and affects several areas. Thus, logistics processes concern both the internal and external aspects of companies.

The objective of this work is to present the contribution of efficient logistics on customer satisfaction. Thus, we formulate the following research question: **Can logistics performance improve customer satisfaction?**

This research aims to demonstrate the relationship between efficient logistics and customer satisfaction. The organisation of our research is divided into three parts: the first section summarises the literature on logistics, the second section defines the second concept of our study, performance, and more specifically logistics performance. Lastly, the third section deals with the relationship between logistics performance and customer satisfaction.

### 1. State of the art of logistics: A literature review

The term logistics comes from the Greek Logistikos (reasoning) or Logisteuo (to administer). If we go back in time, we can see that Julius Caesar installed the "logista" function within his legions, and the military officer had the duty to take care of the movements of the army, the organisation of the camp and the supply of food.

Logistics never left the military circle even between the 13th and 18th centuries, although at that time it was referred to as military engineering, the function of which was to organise and, above all, build the defences and infrastructure of cities. It was in the 19th century that logistics were defined as the art of combining transport, supply and accommodation of troops.

The technological evolution and the industrial revolution gave the kick-off to civilian logistics, as the military institution needed the help of the public sector in some military functions, which is done through subcontracting.

The real evolution of logistics appeared during the Second World War. Learning from the failure of the Germans in their invasion of Great Britain because they miscalculated the allies, they prepared a meticulous logistics, the "Overlord" operation was a good witness.

The fifties are known for military logistics specialists who tried to pass on their know-how to companies.

In the 60's and 70's we started to talk about stock, production, ... we were looking for a reduction of the cost of the operations and an improvement of the flow.

In the 1980s and 1990s, the focus shifted to logistics, the aim of which was to coordinate the company's various functions, so transversality was born.

Especially as the market is saturated and customers are demanding, companies are forced to look at their logistics organisation and find ways out and solutions.

### **Definitions of logistics**

Logistics still covers transport, storage and handling functions and, in production companies, tends to extend its scope upstream to purchasing and supply, and downstream to commercial management and distribution. The original military definition is often quoted: "Logistics is about getting what you need, where you need it and when you need it. » Yves Pimor Michel Fender (2010)

There are multiple definitions of logistics. Key definitions from professional bodies and well-known authors can be found in the table below.

Definitions	Source
According to Council of logistics management: “Logistics is the process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from point of origin to point of consumption for the purpose of conforming the customer requirement”.	Council of Logistics Management, (1961)
<b>Logistics</b> is the management of all activities that facilitate the movement and coordination of offer and demand in creating of time and place benefits.	J.L. Heskett, N.A. Glaskowsky, R.M. Ivie, 1973
<b>Logistics</b> is an integrated, market-oriented planning, creation, implementation and control of flows of material, goods, information from suppliers to enterprises, in enterprises and from enterprises to clients at optimal costs.	Ch. Schulte, 1991
<b>Logistics</b> is an organization, planning, management and execution of flows of goods, starting at development and purchasing through production and distribution according to the final customer so that all market requirements are fulfilled at minimum cost and minimum capital expenditures.	I. Gross, 1995
<b>Logistics</b> is the way, philosophy of flows management (material, information and financial), at which there are applied a systematic approach, methods of planning, algorithmic thinking and coordination in order to achieve the global optimization.	D. Malindžák, 1996
<b>Logistics</b> is the discipline that deals with the overall optimization, coordination and synchronization of all activities in the self-organizing systems, their concatenation is essential to achieve flexible and cost effective final (synergistic) effect.	P. Pernica, 1998
<b>Logistics</b> is the process of planning, implementing and monitoring the efficiency and effectiveness of direct and reverse flow and storage of raw materials, materials in process, products and services, and related information between the point of origin and point of consumption in order to satisfy customer requirements.	Council of Supply Chain Management Professionals, 2005
<b>Logistics</b> is a system in which there is an affect to elements in order to set coordinated material, information and finance flow, resulting in, respectively, which aims to satisfy customer requirements and respective economic effect.	M. Straka, 2013

Source : Developed by us

Overall, logistics occupy an important place within the company and is at the heart of its priorities, as it covers all aspects of managing essential processes from their source of supply to the final consumer.

According to A. Gretacap, P. Medan, (2005) the field of logistics covers all the actions of planning, implementing and controlling the physical flow of goods and the related information flows. In fact, logistics include all the physical resources, IT infrastructure, people and procedures that make possible the flow of goods and the transmission of information from the point of origin (the supply of raw materials - to the point of consumption - the receipt of finished products in the hands of the customer).

Logistics, therefore, ensures that the product is placed at the point of consumption with the best service, at the lowest cost, where and when there is a demand, while at the same time ensuring that customers' expectations are fully met.

In this regard, we also note that logistics is a function that allows for close relations with different functions in the organisation as they share the same objectives.

## **2. Concept of performance and logistics performance**

Performance is one of an organisation's main priorities and is at the heart of all the approaches and the path of its evaluation.

A company's performance is its ability to achieve pre-defined objectives and, more broadly, create value. Moreover, performance can also be an ecological model for the organisation. Since the 1980s, several researchers have endeavoured to define it (Bouquin., 1996; Bescos et al., 1993; Bourguignon., 1995; Lebas., 1995; Bessire., 1999).

In this section, we will present some semantic clarifications of the notion of performance. Then, we will present the proposed definitions of the notion of logistics performance.

### **2.1. Performance concept**

The concept of performance is vague - it is a "suitcase word", a "sponge word" and multidimensional. It can only make sense in the context in which it is used.

In the management literature, the concept of performance has given rise to several definitions: Marion et al point out that in the business world, performance can be defined as: the result of an action, the success of the action, or from the ways in which the result is achieved. As mentioned earlier, the concept of performance takes on its full meaning depending on the context. The concept of performance remains very important within companies, despite the lack of a common vision among different researchers.

In order to describe the performance of an organisation more precisely, a commonly used approach is that which explains the concepts of effectiveness, efficiency and relevance on the basis of the triplet objectives/outcomes/means. Burlat et Boucher, (2003).

Referring to the following definitions: effectiveness is the ability to achieve objectives, while efficiency refers to the ratio of output to input. Increased efficiency comes from maximising the use of resources which leads to an increase in output without increasing costs, or from delivering a given level of output or service by reducing factor inputs. Desreumaux, (1992). In addition, efficiency corresponds to the best possible management of the means and capacities in relation to results. Pfeffer, (2011)

Thus, "Efficiency is defined or measured as the ratio between an output and all or parts of the means, also known as inputs or resources, mobilised to obtain it. The output in question is what is obtained from the activity mobilising these means. As this output is something other than these means, it is a dimensional quantity. Effectiveness refers to a performance that is theoretically defiantly or empirically measured as the ratio of an outcome of a standard for the same thing, i.e. the outcome that would normally be achieved. This can be any element of an activity. Since the observed result and the standard are expressed in the same unit, any efficiency indicator is a dimensionless quantity. Billaudot, (1995)

Relevance, on the other hand, is characterised in this case as the measure of the adequacy of the means made available with the expected objectives of achieving.

In the same vein, performance according to LORINO (2005) "is about reducing costs to increase profits". This means that managers must understand the nature of each cost in order to minimise it and be aware of its relationship to the organisation's sales and profits.

According to DOHOU et al (2007) 'Performance has long been reduced to its financial dimension. This performance consisted of achieving the profitability desired by the shareholders with the turnover and market share that preserved the company's sustainability. But in recent years, we have moved from a financial representation of performance to more global approaches including social and environmental dimensions.

Other actors (called stakeholders) have entered the picture and the concept of performance has been revived. The sustainability of companies now depends not only on the financial aspect of their activities, but also on the way they conduct themselves. Consequently, corporate responsibility is expanding, no longer limited to shareholders alone, but also including other stakeholders (associations, NGOs, trade unions, customers, suppliers, etc.). These new actors demand to be heard and this listening becomes a vital target for the performance and

sustainability of companies. It is in this context that the concept of global performance is emerging.

For Annick Bourguignon, "in a general way, performance refers to the achievement of organisational objectives... in the strict sense (result, outcome) or in the broad sense of the process that leads to the result (action)". It is based on the notions of success, of the result (of an action), which is usually positive, and of the action itself, as a process.

## **2.2. Logistic performance concept**

Achieving performance has always been and will continue to be an important and much sought-after occupation in logistics. Indeed, logistics performance studies how to evaluate between the service provided to the customer and the means consumed, since a logistics performance usually ensures customer satisfaction by consuming fewer resources.

In this sense, several definitions have been revealed by different authors on the notion of logistic performance, we can say that it consists in the first place on the effectiveness which corresponds to the achievement of the objectives of the logistic function and in the second place on the efficiency which is relative to the way in which the logistic function optimises the resources used. And other authors, such as: Langley and Holcom., (1992) and Fugateet., (2010) have deployed a third dimension, namely differentiation. Logistics activities beyond effectiveness and efficiency must furthermore provide added value to increasingly demanding customers and also differentiate themselves from competitors in the market.

However, few results on logistics performance are highlighted and when they are, they are mostly of a financial nature Cadiou, (1995) Jaffeux, (1997) or only take into consideration the time and/or space dimensions Fabbe-Costes, (1991); Fiore, (1995).

Furthermore, according to Biteau, logistics performance is generally represented by the customer service rate: the number of times the right product is delivered; in the right quantity; in the right time; at the right place; in the right packaging; in the right condition and with the right documents; preceded by, accompanied by and followed by the right information; and all of this, in the best economic conditions.

In fact, the service rate is the primary goal of any organisation concerned with its image with its customers, as it measures the proportion of products delivered on time against all those ordered by customers on a given date. In addition, efficient logistics mean ensuring customer satisfaction. That customer is looking for a good quality product, in the shortest time, in the right place, at the lowest price, and with the least effect on the environment. Therefore, the



purpose of the Supply Chain is to meet the customer's demand at the lowest cost with the least impact on the environment.

In order to ensure efficient logistics, a global approach is considered favourable and involves all the actors involved in making the product available to the final consumer. To this end, logistics do not stop within the company concerned. Nevertheless, it goes beyond these limits both upstream and downstream, since it is the supplier's supplier to the customer's customer. This explains the complexity of the notion of logistics performance as it is a multifaceted concept.

However, in the face of an increasingly complex and turbulent environment, a fairly consistent literature suggests that the effectiveness of a global supply chain is measured by its level of responsiveness, rapid process reconfiguration, waste elimination and intelligence. For Mesnard and Dupont, the pillars of efficient logistics are of four kinds:

- Reactivity, i.e. the speed at which the system responds to disturbances;
- Agility, i.e. the speed at which the system adopts its cost structure;
- Efficiency, the elimination of all forms of waste;
- Intelligence, i.e. the maximum exploitation of all information. B.Antje,,Djellal, C. Meunier, F. Payen, T. Zéroual, (2010).

From this perspective and as mentioned before, the performance of the supply chain does not depend on a single actor. It depends on the collective play of all the players, since it is at the point of arrival of the consumer or end user that the logistics balance sheet is drawn up.

Reading it allows us to assess the relevance of strategies and the ability of companies to collaborate. In summary :

- If the response to the customer is to be reliable, all the links in the supply chain must be reliable. The satisfaction of the final customer is only possible if each link respects its service commitments;
- If the response to the customer must be efficient, the search for global optimisations must be the business of all Supply Chain actors (the whole being greater than the sum of its parts);
- If the response to the customer must be reactive, all the links in the supply chain must be agile and strive to reduce delays;

- If the response to the customer is to be ecological, all the players in the supply chain must take decisions aimed at reducing the environmental impact of logistics, in particular transport. JALAL.C, NMILI M, (2020).

In this respect, control of the operational functions between suppliers and retailers (production, routing, warehousing, packaging and delivery to the point of sale) is crucial. Logistics performance can be seen as a component of the organisational performance of companies. Chow et al., (1994)

Logistics performance, according to Chow at all, can be approached through the addition of classical hard (net revenues or accounting figures) and soft (customer satisfaction rate) indicators. Chow et all, (1994). Following this definition, Caplice and Sheffi (1994) update the criteria for evaluating logistical performance. The chosen metric should consist of eight criteria that have a character.

1. Validity, accurate reflection and control of events and activities,
2. Robustness, correctly interpreted by all actors and repeated across time, place and organisations,
3. Usefulness, able to be understood and provide a guide for all actions and decisions taken,
4. Integration of all components and aspects of the processes within and outside the company,
5. Economy in tracking representative costs easily and accurately,
6. Compatibility with the accounting and information systems held by the firm,
7. A level of detail that is sufficiently clear and explicit to the user,
8. Behavioural neutrality in order to minimise individual and unproductive acts or games.

In order to avoid a failure of one of the links in a supply chain, it is necessary to mention certain characteristics of efficient logistics along the supply chain:

**In the field of supply, efficient logistics are characterised by**

- Security of supply,
- Reliability of supplies,
- Optimised stock of raw materials and/or components.

**In the field of production, efficient logistics are characterised by**

- Reduced running time,
- Continuous, non-stop production process,
- Optimised safety stock of work in progress.

### **In the field of distribution, efficient logistics are characterised by**

- Deliveries to customers on time,
- Deliveries without disputes ;
- Optimised stock of finished products. L.Oubaouzin,. (2019)

In sum, through the literature review and as cited by Lyonnet&Senkel, (2015), logistics performance is "getting the right product to the right place at the right time cost and service level constraints". Therefore, logistics performance is about ensuring customer satisfaction and this is done by taking into account the important pillars of: Reliability, Effectiveness, Efficiency, Responsiveness, Intelligence and Environmental friendliness.

### **3. Logistics performance and customer satisfaction**

Logistics is a vital issue for the entity. It is a factor of competitiveness and an essential means of satisfying customers in a context marked by a continuous increase in their requirements.

As mentioned above, logistics has become an element of differentiation through the services provided, which is a real competitive advantage, given that the competitiveness of the entity is increasingly based on its ability to provide products with the best quality-price-delivery-time-hygiene ratio in order to ensure a high degree of adaptation to customer needs. In this sense, it appears that there is a close relationship between logistics performance and customer satisfaction.

First, it is necessary to review some of the definitions of satisfaction and customer satisfaction.

#### **3.1. Definition of customer satisfaction**

"Satisfaction is based on a comparison of the perceived performance of the service with a pre-established standard". LLOSA, (1997), Llosa, (1997) Satisfaction is the result of a process of psychic and complex comparisons. The comparison of a theoretical value with an actual value: confirmation / invalidation paradigm". BARTIKOWSKI, (1991)

Furthermore, the concept of customer satisfaction has been given several definitions in the course of research, which can be divided into two main categories:

The first category of approaches describes satisfaction, as the result of a process (the experience of consumption). Westbrook& Oliver, (1991); Bolton & Drew, (1991)

The second category, in its conceptualisation, considers satisfactory as a whole or part of this process and essentially reflects its comparative character, from one (consumer) state to another. Evrard, (1993)

For other authors, satisfaction is a cognitive construct, Howard and Sheth, (1969) Oliver, (1980) while others consider satisfaction as an emotional reaction, Bagozzi et al., (1999). Or as an attitude because according to some authors, satisfaction is an evaluation or a judgement. Czepiel and Rosenberg, (1977). In this sense, Hunt (1977) defines satisfaction as an evaluative judgement which allows the consumer to assess whether the consumption experience was at least as good as it was supposed to be.

At the end of the analysis, satisfying a customer means providing him with what he wants, what he came to one company for and not another. In fact, a satisfied customer is one whose perception of the offer is greater than or equal to their expectations.

### **3.2. The contribution of logistics performance to customer satisfaction**

Customers are the primary concern of any company seeking to be competitive. Increasingly, logistics based on working with customers are an integral part of their expectations and their perception of the company's performance. Eymery, (1997)

Indeed, the definition of logistics as described by AFNOR "Ensuring the full satisfaction of customer expectations, while simultaneously seeking the economic optimum to ensure the sustainability and development of the company".

Thus, good supply chain management plays an important role in customer satisfaction and loyalty, mainly through:

- Improving the quality of products sold by controlling non-conformities;
- Cost control by reducing waste and optimising resources;
- Reducing delivery times;
- Improved service to customers;
- Consumer safety and environmental protection. ENNESRAOUI.D, (2014)

Indeed, if logistics performance contributes to organisational performance and a comparative advantage for a company. Lorentz et Lounela (2011) It is also an important ingredient in the satisfaction and loyalty of consumers who are often seen as targets for managers and marketers in organisations. Schramm-Klein et Morschett, (2006)

Studies conducted to investigate the relationship between logistics performance and consumer satisfaction have shown that the former construct positively influences the latter in the retail sector. Samli et al, (2005) ; Gil-Saura, et al, (2010), Mackenzie et al, (2011) ; Bouzaâbia et Boumaiza, (2013) ; Ltifi et Gharbi, (2015) When there is congruence between consumer expectations and logistics performance indicators, the latter is considered an antecedent of

customer satisfaction. Garrouche et al. (2011) To the extent that it is the result of a consumption experience. Westbrook et Oliver (1991), Bolton et Drew, (1991)

However, as Aurifeille & Quester (1998) note, customers are in fact only confronted with the logistics part when there is a problem. Thus, the best logistics are often the one that the customer does not notice, the one that allows him to find the desired product where he wants it, with the best quality and at the lowest price.

### **Conclusion**

The article shows that optimising logistics can significantly improve customer satisfaction. Indeed, efficient logistics can reduce delivery times, improve service quality and better manage product returns. These factors are essential for meeting customer expectations and building customer loyalty.

The importance of logistics in customer satisfaction should not be underestimated, especially in an increasingly competitive environment. Companies that want to stand out from the crowd must therefore implement effective logistics strategies to meet their customers' needs.

However, questions remain regarding the costs of implementing these strategies, the environmental impact of logistics, or the use of technologies such as AI or blockchain to optimise logistics processes.

Despite these limitations, research has demonstrated the main benefits of efficient logistics on customer satisfaction. These benefits include improved service quality, reduced delivery times, optimised product return processes, reduced costs, increased customer loyalty and increased company profitability.

In sum, efficient logistics are a key issue for companies seeking to satisfy their customers' needs and to stand out from the competition. Future research perspectives should focus on exploring new technologies and practices to further improve service quality and customer satisfaction, while reducing the environmental impact of logistics.

## BIBLIOGRAPHY

- Beamon B., (1998). “Supply Chain Design and Analysis: Models and Methods”, International Journal of Production Economics.
- Bowersox D.J., Closs M., Cooper B., (2009), Supply Chain Logistics Management, McGraw Hill.
- Christopher, M., (1992), Logistics and Supplychain managements. PitmanPublishing, London.
- Christopher M., (1998), logistics and supplychainmanagement: Strategies for reducingcost and improving service. London, Prentice Hall.
- Cohen S., et Roussel J., (2005), Strategic Supply Chain Management : The Five Disciplines for Top performance. McGraw-Hill, New York.
- Douglass. M, Terrance.L.,(2002). “Mesurer la performance globale de la chaine logistique”, Logistique and Management. VOL 10., Issue 1.
- ENNESRAOUI.D, (2014). ” Logistique et satisfaction des exigences du client”, Revue Marocaine de Recherche en Management et Marketing N°9-10.
- JAWAB.F , BOUAMI. D., (2007). “Contribution to the development of a logistics audit approach. Application to a Moroccancompany”. Munich Personal RePEc Archive.
- L.Oubaouzin, (2019). ” La contribution d’une logistique performante à la performance de l’entreprise”, Revue de Management et Cultures.
- Maskinia.N , Karim.K.,(2016). “The Contribution of the Process of the Logistic Audit In the Performance of the Firms”. International Journal of Business and Management Invention. Vol. 5., Issue 10.
- Paché G., Spallanzani A., (2007), ” La gestion des chaînes logistiques multi-acteurs : perspectives stratégiques ”. Presses Universitaires de Grenoble. Grenoble. pp. 85-100.
- Pascal LIEVRE., (2007), La logistique : édition la Découverte, Paris.
- Ratliff H-D., Nulty W-G., (1997),” Logistics composite modeling, in the planning and scheduling of production systems, methodologies and applications”. In Artiba A., Elmaghraby S-E., (ed.), Chapman & Hall, p. 10-53.
- Tixier D., Mathe H. et al., (1996), La logistique d’entreprise : vers un management plus compétitif. Dunod, Paris, p. 69.

- VALLIN Philippe., (2001), "La logistique, modèles et méthodes du pilotage des flux", Edition Economica.
- Yves Pimor Michel Fender., (2010), LOGISTIQUE : Production • Distribution • Soutien.