

**Ecole des Hautes Etudes Commerciales
d'Alger**

EHEC

**Thesis submitted in partial fulfilment of the requirements for
master's degree in commercial sciences**

Major: Distribution and Supply Chain Management

**The impact of distribution logistics on the
commercial performance**

CASE STUDY: DEF MED SPA

Submitted by:

Ms. Wafaa MECHEROUH

Supervised by:

Dr. Souad DJEDI

10th Promotion

June 2023

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Dedications

It is with great pleasure and joy that I dedicate this modest work, the fruit of my studies, expressing my sincere gratitude to all my loved ones, especially:

To my mother,

Who gave me life and selflessly sacrificed for my happiness and success, words cannot express the depth of my love for you. Everything I am today, I owe to you, my angel mother.

To my father,

You are my guardian angel, and I am forever grateful for your unconditional love and support.

To my aunt Nasira and dear brother Mohammed,

Your love and support have meant the world to me. I am deeply thankful for your presence and encouragement.

To my friends,

For the laughter, the tears, and the unforgettable memories, you have been my constant source of joy. I treasure each memory and look forward to creating more together.

To all those who have held a special place in my life,

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I would like to thank my dear parents, who have always been there for me. I am grateful to my aunt Nasira and my brother Mohamed for their encouragement and support.

I would like to express my gratitude to my friends who have provided me with moral and intellectual support throughout the preparation of this thesis.

Finally, I would like acknowledge and thank all those who have contributed directly or indirectly to the completion of this work.

To each and every one of these individuals, I present my thanks, respect, and gratitude.

Abstract

The global economy is facing rapid and often unpredictable changes. In an unstable and ever-evolving environment, the stakes are high for businesses that must perform to ensure their survival and sustainability. It is in this context that distribution logistics plays a crucial role in ensuring customer satisfaction by providing the right products, at the right time, in the right places, and in adequate quantities, all at a competitive price in the market.

To thoroughly study the impact of distribution logistics on commercial performance, we have chosen to focus on DEF MED Spa, a subsidiary of the HYDRAPHARM Group, for our field study.

By analysing commercial performance indicators and conducting interviews with logistics and commercial department managers, we have observed that the mastery and effective management of distribution logistics activities, particularly transportation and warehousing, enables the company to satisfy customers in terms of quality, timeliness, and costs.

Keywords: distribution logistics, commercial performance, DEF MED Spa, indicators, transportation, warehousing, customer satisfaction, quality, timeliness, cost.

Résumé

L'économie mondiale est confrontée à des changements rapides et souvent imprévisibles.

Dans un environnement instable et en constante évolution, les enjeux sont considérables pour les entreprises qui doivent performer afin d'assurer leur survie et leur pérennité. C'est dans ce contexte que la logistique de distribution joue un rôle crucial en veillant à la satisfaction des clients en leur fournissant les bons produits, au bon moment, aux bons endroits et en quantité adéquate, le tout à un prix concurrentiel sur le marché.

Afin d'étudier de manière approfondie l'impact de la logistique de distribution sur la performance commerciale, nous avons choisi de nous tourner vers DEF MED Spa, une filiale du Groupe HYDRAPHARM, pour mener notre étude sur le terrain.

En analysant les indicateurs de performance commerciale et en menant des entretiens avec les responsables des services logistique et commercial, nous avons constaté que la maîtrise et la bonne gestion des activités de la logistique de distribution, essentiellement le transport et l'entreposage, permettent à l'entreprise de satisfaire les clients en termes de qualité, de délais et de coûts.

Mots clés: la logistique de distribution, la performance commerciale, DEF MED Spa, indicateurs, transport, entreposage, satisfaire les clients, qualité, délai, coût.

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List of abbreviations

Abbreviation	Significance
CSCMP	the Council of Supply Chain Management Professionals
CLM	the Council of Logistics Management
ELA	the European Logistics Association
ITUs	intermodal transport units
ROI	return on investment
ROE	return on equity
KPI	key performance indicator
FEFO	First Expired, First Out
EURO	European
BL	delivery notes
PRV	Physical Reception Voucher
TRV	Theoretical Reception Voucher

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GENERAL INTRODUCTION

Currently, with globalization and technological advancement, modern businesses are facing significant transformations and changes in their modes and strategies of operation.

Competition and competitiveness make their task even more challenging, and in order to be effective and secure their position in the markets, they must adopt new policies.

Distribution logistics is part of these new policies. Logistics is not limited to the organization of the transportation of raw materials and goods; it actually encompasses the techniques of control and management of flows of material, financial, and information resources necessary for the proper execution of its fundamental principle: delivering the right product, at the right place, and at the right time.

Located downstream, distribution logistics ensures the delivery of products from the producer to the end customer. It has become a fundamental function in the economy and commerce as it determines the structure of the distribution network, inventory management systems, and transportation, aiming to provide the right product in the right quantity and quality, within increasingly shorter timeframes. Indeed, its knowledge and mastery will drive the efficiency of the company's commercial performance.

To develop this thesis, we are interested in the company DEF MED Spa in order to study the impact of distribution logistics on commercial performance. The choice of this theme is not fortuitous; its importance as a relevant and current topic, along with its direct connection to my field of study, has motivated us as future logistics professionals to delve deeper into the intricacies of this subject. We have chosen this company as a research site due to its national presence and extensive experience in distribution, being a subsidiary of HYDRAPHARM Group, the national leader in pharmaceutical distribution in Algeria. This allows us to apply our theoretical knowledge in the field and gain a more practical understanding.

The main objective of this research is to understand how DEF MED Spa manages its distribution logistics and emphasize its importance in ensuring the smooth operation of the company. Additionally, we aim to explore the impact of optimizing tasks within this function on enhancing commercial performance.

Throughout this study, we have tried to answer the following research question:

« Does the distribution logistics of DEF MED subsidiary impact its commercial performance? »

In order to address this main research question, it is necessary to provide answers to the following sub-questions:

- How does DEF MED optimize its transportation function?
- How does warehouse management impact the distribution logistics within DEF MED?
- How does DEF MED measure its commercial performance?

In order to better understand the raised concerns and provide elements of answers to these questions, we propose three hypotheses, namely:

- **H1:** DEF MED Spa has the necessary capabilities to manage its transportation function effectively.
- **H2:** Effective warehouse management enhances the responsiveness of DEF MED Spa's distribution logistics processes.
- **H3:** The commercial performance of DEF MED Spa is measured by quantitative and qualitative indicators that generally present favourable results.

To confirm or refute the previous hypotheses, we will adopt the following methodology:

In-depth literature review, through consulting various books, periodicals, specific websites, and relevant academic works related to our research topic, as well as internal documents of the company.

Given the nature of the study, we have adopted a descriptive and analytical approach, utilizing qualitative research methods through semi-structured interviews with several key personnel directly involved in the distribution logistics function, as well as the company's commercial function.

The content of our research work has been developed according to the following structure:

The first chapter will focus on logistics to provide a comprehensive understanding of the concept of distribution logistics and its activities.

The second chapter will introduce the concept of performance, specifically commercial performance, its indicators, and tools. These two chapters will have a purely theoretical aspect.

The third chapter will be dedicated to the presentation of DEF MED Spa, its management of distribution logistics, and the impact it has on commercial performance. This will be done through the analysis of the survey results obtained from the relevant personnel.

At the end of this modest work, we will conclude with a general conclusion to verify our hypotheses and address our research question.

Chapter 01:

The Basics of Distribution

Logistics

Chapter Introduction:

The fundamental objective of an enterprise is to satisfy its customers, whether it operates in the industrial, service, or public sector. What does the customer desire? Essentially, a good product delivered on time at a reasonable price. To achieve this objective, the company allocates resources, and the implementation of these resources constitutes the company's logistics function. Considered a vital factor for competitiveness, logistics plays a significant role in enhancing a company's commercial performance.

Distribution, positioned downstream from production, constitutes a critical phase aimed at ensuring product availability and meeting market demands while minimizing costs.

This first chapter is dedicated to distribution logistics, which consists of three sections that we will cover as follows:

- The first section introduces logistic concepts.
- The second section focuses on distribution policy and distribution logistics.
- The third section explores the activities of distribution logistics.

Section 1: Logistics concept

In this first section, we will approach the origin and provide some definitions of logistics, its types, then the objectives, then we will conclude the section with a presentation of the different flows of logistics.

1. The origin of logistics:

The word “logistics” has two origins: mathematical and military.¹

1.1. Mathematical origin:

The origin of the word logistics is Greek: *logistikos*, which corresponds to mathematical reasoning. This term was first used by the Greek philosopher Plato (428–448 BC) and was the origin of the Latin word *logisticus*. It was first used in the French language in 1590 as an adjective to describe a logical reasoning.

At the start of the 20th Century, Bertrand Russell, British mathematician and logistician (1872–1970), highlighted the close link between logistics and mathematical logistics. This represented the beginning of the theory of algorithms. In this sense, logistics refers to the art of organizing a calculation in stages to attain an aim. This discipline is called algorithmic logics.

1.2. Military origin:

The word “logistics” equally finds its source in the battlefields. Its meaning derives from the rank of an officer in charge of the dwellings of the troops during combat. Since ancient antiquity, logistics has played an important role in military activity. However, it was in the 20th Century, during the First and Second World Wars, that there have been important developments concerning the reflection in the practice of the subject, hence the development of a recognized science, called military logistics. The aim of this science is to regulate human resources, food and material flows in order to ensure, among others, the support in foodstuffs and the provision of equipment and transport means for the armed forces. The term “logistics” indicates, by an abuse of language, the science of the plan and execution of the transfer of armed forces and their maintenance.

¹ ZGAYA, (H) et HAMMADI (S): *Logistics Engineering and Health*, ISTE Press, London, 2016, p.2-3.

2. Logistics definitions:

When referencing current literature, a number of adequate definitions of logistics can be found. Perhaps the most popular describes logistics as consisting of the Seven R's: that is having the right product, in the right quantity and the right condition, at the right place, at the right time, for the right customer, at the right price.¹

For the Council of Supply Chain Management Professionals (CSCMP) -formerly the Council of Logistics Management (CLM)-, Logistics is defined as: « *the process of planning, implementing and controlling the efficient, cost-effective flow and storage of raw materials, in-process inventory, finished goods, and related information from point of origin to point of consumption for the purpose of conforming to customer requirements* ».²

According to the European Logistics Association (ELA), Logistics is: « *the organization, planning, control, and execution of the goods flow from development and purchasing, through production and distributions to the final customer in order to satisfy the requirements of the market at minimum cost and minimum capital use* ».³

Based on the previous definitions, Logistics can be defined as the process that involves planning, implementing, and controlling the efficient and effective flow and storage of raw materials, work-in-progress, finished products, and information from the point of origin to the point of consumption, with the aim of meeting customer requirements. This definition particularly applies to tangible objects.

3. Logistics types:

Logistics inherently encompasses the functions of transport, storage, and handling. Within logistics, inbound activities revolve around the acquisition of materials, followed by their handling, storage, and transportation. On the other hand, outbound logistics entails the collection, maintenance, and distribution of goods to the end customer.

However, we can distinguish several different logistics by their purpose and their methods:⁴

- **Procurement logistics:** That brings the basic products, components and sub-assemblies necessary for production to the factories;

¹ ROSS, (D.F): *Distribution: Planning and Control*, Kluwer Academic Publishers, 2nd edition, Norwell, 2004, p.37.

² Ibid, p.37.

³ PFOHL, (Hans-Christian): *Logistics Systems*, Springer, 1st edition, Heidelberg, 2018, p.11.

⁴ PRIMOR, (Y) et FENDER (M) : *Logistique : production, distribution, soutien*, DUNOD, 5th edition, Paris, 2008, p.4-5.

- **General supply logistics:** which enables service companies or administrations to be provided with the various products they need for their activity (office supplies, for example);
- **Production logistics:** Which consists in bringing to the base of the production lines the materials and components necessary for the production and in planning the production; this logistics tends to absorb the entire production management;
- **Distribution logistics:** That of the distributors, which consists in bringing to the final consumer, either in the large commercial surfaces, or at home in distance selling for example, the products which he needs;
- **Military logistics:** That aims to transport forces and all that is necessary for their operational implementation and support to the field of operations;
- **Support logistics:** born in the military but extended to other sectors, aeronautics, energy, industry, etc., which consists of organizing everything that is necessary to maintain a complex system in operation, including through maintenance activities;
- **After-sales service:** quite similar to support logistics with the difference that it is exercised in a commercial framework by the person who sold a good; the expression “service management” is often used to designate the management of this activity; it should be noted, however, that this form of support logistics increasingly tends to be carried out by support specialists other than the manufacturer and the user and known as Third Party Maintenance;
- **Reverse logistics:** which consists of the retrieval of products that the customer does not want or wish to have repaired, or even in processing industrial waste, packaging, unusable product.

4. Logistics objectives:

The objectives of logistics are as follows:¹

- **Improving Customer Service:**

By attaining customer satisfaction, highest level of profits can be ensured. Thus, continuous improvement in customer service acts as the core objective of logistics.

- **Speedy Response:**

¹ <https://www.toppers4u.com/2021/01/logistics-meaning-objective-importance.html> (Published on 21/01/2021, consulted on 31/05/2023 at 19:01).

It refers to the organization's ability to give prompt response to the customers queries. In today's era of IT, it has become completely manageable to give immediate response to the customers' queries by acquiring related data and postponing logistical functions to latest time for increasing the response rate.

- **Decreasing Costs of Total Distribution:**

Decreasing the costs associated with overall distribution is another vital objective of logistics. The expenses on distribution of goods include expenditure on shipment, storage and, record keeping, etc. As these processes are interlinked, reducing the cost of one function often increases the cost of the other.

- **Consistent and Reliable Delivery Performance:**

Ensuring consistent and reliable delivery performance is another main objective of logistics. This will significantly help companies to strengthen their relationships with the customers by developing trust and gaining confidence.

- **Least Product Damages:**

Damaged products contribute to extra expenditure on logistics. This extravagant expenditure on damage can be avoided by using mechanical system for handling materials, using logical and efficient system of packaging.

- **Creating Additional Sales:**

One of the other aims of logistics is to increase sales by creating additional sales. This can be attained by providing better services in the most economical way.

- **Generating Place and Time Utilities:**

Ensuring the utility of product at right time and right place is another main objective of logistical functions. The product is not good for the consumers until it reaches them at the right place and right time.

- **Stability of Costs:**

Another purpose of logistics is to ensure the stability of costs. It can be attained by managing the supply of goods through thoughtful use of the accessible transportation and suitable storage facilities.

- **Upgrading Quality:**

In the long-run, logistics seeks to ensure continuous quality improvement. Total Quality Management has emerged as a primary obligation in all parts of the industry within this aspect. Its assurance is mainly responsible for logistical regeneration.

- **Life cycle Support:**

A sound logistical system is mainly responsible for maintaining healthy PLC. Sometimes goods are sold without giving guarantee regarding their lasting performance as advertised. These situations call for reversing the direction of normal value-added inventory offered to the customers.

- **Movement Consolidation:**

Transportation cost is one of the most important logistical costs as logistics aims to reduce costs through consolidation and integration of operations. It is directly related with the product type, shipment Size, distance, etc. Thus, movement consolidation becomes desirable for ensuring the reduction in transportation costs.

- **Inventory Reduction:**

One of the major factors which can prove to be unfavorable for the firm is heaps of records. Conventionally, abundant inventory was maintained for ensuring good customer care services, which indulged a lot of expenditure. Thus, reduction in inventory is another main objective of logistics.

5. Logistics flows:

A logistic flow refers to the organizational efficacy allocated to the activities or operations in a warehouse (from production to distribution), with a view to reducing waste. Logistic flows are also known as “value chains”, “activity chains” or “supply chains”.¹

There are two main types of flows:²

- **Internal logistics flows and processes (or “production flows”):** which designate all physical movements and circulations (transformation, machining, handling, management of intermediate stocks).

¹ <https://www.cevalogistics.com/en/glossary/logistic-flow> (consulted on 31/05/2023 at 19:36).

² <https://www.dds-supplychain.com/en/logistics-flows-and-processes-the-keys-to-optimization/> (consulted on 31/05/2023 at 22:13).

- **External logistics flows and processes:** which are themselves divided into two categories.
 - **Upstream (or supply) flows:** which refer to movements from the supplier to the warehouse.
 - **Downstream (or distribution) flows:** which go from the warehouse to the points of sale or to the final customers (finished products).

Section 2: Distribution politic and distribution logistics

Defining a distribution policy is the most appropriate way to boost sales and ensure that consumers can easily access the products they need. In this section, we will discuss the key concepts of distribution in which we will first approach the definition, functions and objectives of distribution, then distribution circuits, as well as distribution strategies.

Additionally, we will define distribution logistics and its objectives, then the process of distribution logistics, and finally the challenges of distribution logistics.

1. Distribution politic:

1.1. Distribution definition:

Several definitions have been proposed by different authors, and among which are the following:

Kotler and Dubios define distribution as follows: « *all the activities that take place from the moment the product, in its form of use, enters the commercial store of the producer or the last processor until the moment the consumer takes possession of it* ».¹

« *Distributing products means bringing them to the right place, in sufficient quantities with the required choice, at the right time and with the necessary services for their sale, consumption, and, if applicable, their maintenance* ».²

Based on these definitions, we can conclude that distribution is the phase that encompasses activities carried out to ensure that products reach their final destination, at the right time and place, in optimal conditions, and in the required quantities.

¹ KOTLER, (P) and DUBOIS (B): *Marketing Management*, Pearson Education, Paris, 11th edition, 2003, p.550.

² LENDREVIE (J), LEVY (J) and LINDON (D): *MERCATOR, théorie et pratique du marketing*, Dalloz, 7th edition, Paris, 2003, p.399.

1.2. Distribution functions:

Distribution provides logistics and commercial functions.¹

1.2.1. Logistics functions:

The purpose of distribution is to bridge the spaces of distance and time lag that separate economic actors.

- **Spatial functions:** aim to make products physically accessible to the customer. They include:
 - **Transportation:** the delivery of products to the places of consumption.
 - **Consolidation:** grouping of products with the same destination.
 - **Fractionation:** division of lots into small lots that can be purchased by the consumer.
- **Temporal functions:** allow for bridging the gap that exists between the moment when the goods are manufactured and the moment when the consumer uses them. They cover:
 - **Storage:** placing products in warehouses awaiting their sale;
 - **Financing of goods:** awaiting transfer of ownership to the customer.

1.2.2. Commercial functions:

Their objective is to make the product transmissible to the consumer. To achieve this, two main functions are required:

- **The communication function:** the customer must be aware of the product's existence, its characteristics, and its availability. This function is ensured through advertising, signage at the point of sale, product demonstrations, etc.
- **The property transfer function:** it involves allowing the consumer to become the owner of the product. It is necessary to operate commercial transactions: transaction of purchase of the product for the purpose of the transaction of sale to the customer. This function includes the notion of commercial risk: once the distributor becomes the owner of the product he sells, he assumes the risk of unsold items.

1.3. The objectives of the distribution:

In the development and implementation of their distribution policy, companies producing goods or services generally pursue, simultaneously, three main objectives:¹

¹ SOHIER, (J) and SOHIER (D): *Logistique*, Vuibert, Paris, 7th edition, 2013, p.36.

1.3.1. Quantitative market coverage:

Companies must, first and foremost, strive to have a distribution system that allows them to effectively make their products available to as many potential customers as possible.

1.3.2. Qualitative aspects of the distribution system:

The quality of a distribution system can be defined as its ability to facilitate or stimulate the purchase of a company's products by its potential customers. The main qualitative aspects of a distribution system are:

- The compatibility of distribution channels with the brand image of the company's products;
- The competence and dynamism of the distribution agents;
- The quality of the company's products presentation at the points of sale.
- The quality of after-sales services provided to customers;
- The final price level: The distribution system of a company has direct consequences on the final selling price of its products.

1.3.3. Minimizing costs:

Any distribution system necessarily involves constitution and management costs; like all other marketing costs, they must be maintained at the minimum level compatible with the quantitative and qualitative objectives mentioned above.

1.4. Distribution circuits:**1.4.1. Definitions:**

We propose some definitions of the concepts (circuit, channel, network):

1.4.1.1. The distribution channel:

*« The term "distribution channel" refers to the collective set of interdependent organizations involved in the process by which products or services are made available to consumers and users ».*²

¹ JALLAT, (F) and LINDON (D): *Le marketing*, Dunod, Paris, 7th edition, 2016, pp.180-182.

² KOTLER, (P) and KELLER (K.L): *Marketing Management*, Pearson Education, Paris, 15th edition, 2015, p.552.

1.4.1.2. The distribution circuit:

« A distribution circuit is the process that, passing through a greater or lesser number of external or internal intermediaries, allows the delivery of a good or service to the buyer or the final consumer ».¹

The set of channels that a product uses to reach its targets, constitutes a circuit.²

1.4.1.3. The distribution network:

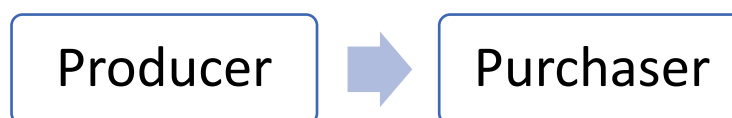
« A distribution network can be seen as the flow of goods from a producer or supplier to an end consumer. The network consists of storage facilities, warehouses, and transportation systems that support the movement of goods until they reach the end consumer ».³

1.4.2. The types of distribution circuits:

Distribution circuits are distinguished by their length and complexity. The length of a circuit is measured by the number of successive channels through which the transfer of ownership takes place between the producer and the final customer. In this regard, we distinguish:⁴

- 1.4.2.1. The ultra-short circuits:** in which there are no intermediaries as such, as the sale is made directly by the company's own sales force to the end customer.

Figure 1: the ultra-short circuit



Source: SOHIER, (J) and SOHIER (D): *Logistique*, Vuibert, Paris, 7th edition, 2013, p.38.

- 1.4.2.2. The Short Circuits:** involve only one intermediate channel between the producer's sales force and the final customer. This channel can be made up of retailers. It can also be formed by large distribution companies purchasing products directly from manufacturers through a centralized purchasing center for all their retail outlets. Lastly, it can be comprised of mail-order sales companies.

¹ LENDREVIE, (J) and LEVY (J): *MERCATOR*, Dunod, 11th edition, Paris, 2014, p.308.

² CLIQUET(G), FADY (A) and BASSET (G): *Management de la distribution*, Dunod, 2nd edition, Paris, 2006, p.97.

³ <https://corporatefinanceinstitute.com/resources/valuation/distribution-network/> (Last Updated on 28/03/2023, consulted on 02/06/2023 at 01:27).

⁴ JALLAT, (F) and LINDON (D): *Op.cit*, pp.184-185.

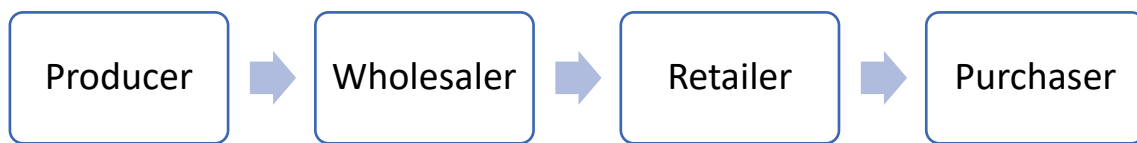
Figure 2: the short circuit



Source: SOHIER, (J) and SOHIER (D): Op.cit, p.38.

1.4.2.3. The long circuits: in which the number of intermediate channel between the producer and the end customer is equal to or greater than two.

Figure 3: the long circuit



Source: SOHIER, (J) and SOHIER (D): Op.cit, p.38.

1.5. Distribution strategies:

1.5.1. Definition:

« With the term “Distribution Strategy” we refer to the plan that specifies how products or services flow through distribution channels in order to reach the end-users ».¹

1.5.2. Types of distribution strategies:

The choice of strategy is oriented by at least two criteria: the desired territorial coverage and its corollary the desired speed of diffusion for the product, the positioning of the product. Among these strategies are the following:²

1.5.2.1. The intensive or mass distribution: consists of selling in all directions in order to hold the largest possible market share as quickly as possible. This is a strategy applied in the case of most mass consumption products but which has many drawbacks insofar as it is costly (distribution and communication costs due to the multiplicity of targets - intermediaries and consumers -, risks of losing control of the brand's image). It is obviously the strategy of major distributors.

1.5.2.2. The selective distribution: It involves choosing channels based on the commercial capabilities and qualities of retailers, and thus follows a logic of

¹ MORETTI, (Livio): *Distribution Strategy*, Springer, Cham, 2019, p.3.

² CLIQUET(G), FADY (A) and BASSET (G): Op.cit, pp.121-123.

short channels without wholesalers. Selective distribution is not considered to be restrictive of competition, because limiting the number of resellers may constitute an element of competition between manufacturers of different branded products (inter-brand competition). A central element of this strategy lies in the manufacturer's ability to implement a cooperative approach with retailers, especially in terms of communication. This differentiation strategy aims to control the brand image rather than focus on market share growth. Selective distribution particularly concerns luxury products.

1.5.2.3. The exclusive distribution: involves a strict selection of retailers who will have the privilege to sell the product in each market area. Exclusivity is therefore defined in a given territory: no other distributor will sell the products in this territory.

2. Distribution logistics:

2.1. Definition:

CLIQUET (G) and others define distribution logistics as « *a set of interconnected activities whose mission is the physical transfer of finished products from the manufacturer to his customers. The objective is to ensure that the product desired by the customer is in the right place, at the agreed-upon time, in the expected quantity and at the best cost* ». ¹

According to PFOHL, distribution logistics is « *a market-linked logistics system. It combines a company's production logistics with the customer's procurement logistics. Distribution logistics comprises all activities related to the supply of finished goods and merchandise to the customer* ». ²

Based on these previous definitions, we can define distribution logistics as a set of operations implemented to ensure the transmission of products and goods from their point of origin to the final customers, taking into consideration their requirements in a cost-effective manner.

2.2. Objectives of distribution logistics:

The primary mission of distribution logistics is to balance the supply of goods in the market according to the market demand.

¹ CLIQUET(G), FADY (A) and BASSET (G): Op.cit, p.287.

² PFOHL, (Hans-Christian): Op.cit, p.199.

The main objectives of distribution logistics are:¹

2.2.1. Availability of goods:

Ensuring a sufficient quantity of product availability is the primary objective of distribution logistics management.

2.2.2. Cost optimization:

High-quality demands of the manufacturers require low-cost delivery. The distribution logistics department aims at reducing costs associated with the overall transportation, storage, product availability, and order processing. This results in a structured, faster, more time-efficient, and sustainable delivery.

2.2.3. Optimize delivery performance:

Providing on-time delivery to the customer base is one of the essential aspects of building a long-lasting and sustainable relationship with the customer. Distribution logistics ensure a proper consistency in the delivery performance through appropriate planning and implementation to meet customer expectations better.

2.2.4. Efficient information flow:

One of the integral parts of effective logistics management is strengthening the communication flow in the business. Maintaining a transparent and efficient communication network allows companies to be agile and more responsive.

2.3. Distribution logistics process:

The process of distribution logistics can be summarized in three steps:²

2.3.1. Planning:

- Distribution networks.

¹ <https://golocad.com/logistics/distribution-logistics/> (consulted on 03/06/2023 at 17:19).

² RAHAL, (Farah): *Chapitre I: Introduction à la logistique de distribution*, distribution logistics course, EHEC, 2022, pp.32-34.

- Planning and scheduling of shipments.
- Selection of distribution intermediaries and logistics service providers (warehouses, distribution centers, transporters, etc.).
- Planning of sub-contracted activities.

2.3.2. Transactional and administrative:

- Processing customer orders
- Follow-up of customer orders (verification, confirmation, invoicing, payments).
- Preparation and processing of shipping documentation (insurance, customs).
- Shipment Tracking
- Customer service.
- Guarantees management.
- Management of returned goods.

2.3.3. Operational:

- Storage of finished products.
- Preparation of orders for shipments (and packaging).
- Verification of deliveries.
- Loading of deliveries.
- Delivery.
- Quality control.
- Transfers between warehouses.
- Maintenance of transport equipment.

2.4. The challenges of distribution logistics:

The challenges of distribution logistics are:¹

- **Multiplicity of participants:**

The circulation of information and goods should be well organized (control of document flows, planning of physical operations through the distribution network, etc.).

¹ Ibid, pp.36-38.

- **Multi-modality of transport operations:**

The possibility of using different successive modes of transport for shipments requires, depending on the nature and size of the packages, making the right choice of packaging, intermodal transport units (ITUs), and ensuring that appropriate handling equipment is available at each transshipment point.

- **Respect of customer specifications:**

The products must be delivered in the requested quantity and quality, within the specified deadlines. Therefore, it is necessary to adopt good practices (fewer load breaks, proactive management of certain administrative formalities, inter-modality and acceleration of transshipment times).

- **Controlling logistics costs:**

Reduction of routes (to travel less km, it is necessary to determine routes effectively, organize routes efficiently, and reduce empty truck returns by offering them return freight); choosing the right service providers; optimizing the combination of resources; better vehicle filling rate; implementing collaborative logistics strategies (GPA, Cross-Docking etc.); optimization of last km costs.

- **Control of risks related to transportation:**

It is necessary to reduce the number of load breaks during transportation, to properly protect the goods and to respect the transport conditions for perishable products. Fewer manipulations result in fewer risks and, consequently, better-controlled insurance costs.

- **Return logistics:**

Organization of collection and return of empty packaging.

Section 3: Distribution logistics activities

In this section, we will cover the various activities of distribution logistics, such as: warehousing, storage, the expedition processes and finally reverse logistics.

1. Warehousing:

Warehousing can be defined as « *that segment of an enterprise's logistics function responsible for the storage and handling of inventories beginning with supplier receipt and ending at the point of consumption. The management of this process includes the maintenance of accurate and timely information relating to inventory status, location, condition, and disbursement* ». ¹

Before going any further, it is important to differentiate between the following concepts:

- The warehouse « *is a node in the logistics network where goods are temporarily held or transferred to another route through the network* ». ²

It can also be defined as « *the physical location where goods are stored for specific purposes, including: consolidation or deconsolidation of packaging for finished products before re-shipment, unpacking or repackaging, delayed use of raw materials in production, speculative waiting for goods related to price fluctuations...* ». ³

- The logistics platform rather designates the place where goods are received to be reshipped within a very short time. It is rare to carry out reconditioning operations on a platform, since the main objective is to redirect flows to another destination. ⁴
- The regional depot is a storage unit located near distribution points. Its main function is to facilitate access to goods and it has two main advantages:
 - ✓ Reduced delivery time
 - ✓ Ability to provide emergency assistance to the customer. ⁵

1.1. Types of warehouses:

Regardless of their physical characteristics, we can distinguish three types of warehouses based on their function: ¹

¹ ROSS, (D.F): Op.cit, p.537.

² PFOHL, Op.cit, p.113.

³ CARRERA, (Susana) : Planification et Ordonnancement de Plateformes Logistiques, PhD thesis in computer science, Institut National Polytechnique de Lorraine - INPL, 2010, p16.

⁴ Ibid, pp.16-17.

⁵ SOHIER, (J) and SOHIER (D): Op.cit, p.40.

- **General shipping warehouse (for dispatch):** This type of warehouse is where products are stored for an extended period or are awaiting shipment to the field or a secondary warehouse. Generally, they are located in the capital or central points of a specific region.
- **Slow-rotation warehouse:** It is used to store non-urgent items, reserves, or infrequently consumed items such as spare parts, equipment, work tools, etc.
- **Fast- rotation warehouse:** These are warehouses used for the daily or frequent shipment of products.

1.2. Warehouse zones:

Regardless of their similarities, it's important to acknowledge that warehouses can vary in their structure and organization. Depending on the specific needs of the company and industry, each warehouse may have dedicated zones for specific tasks, some zones may be considered unnecessary, while others may require expansion or subdivision to accommodate specific tasks. The following zones can be found:²

1.2.1. The reception zone:

The reception zone includes truck unloading docks, reception control areas, packaging areas, and mass storage areas.

- The unloading docks are used for unloading trucks using pallet jacks or forklifts.
- The reception control area is used to conduct quantitative and qualitative controls of received goods.
- An unpacking area is necessary if the received goods must be individually packaged (which may require unwrapping or depalletizing), repackaged (such as changing the pallet) or labelled.
- After being received and before being gradually transferred to the storage area, the goods can be stored in the mass storage area. In this area, the goods are generally placed on the ground.

The reception area is sized according to the reception volume of the warehouse and the type of goods received. For example, the higher the reception volume, the greater the surface occupied by the reception area will have to be.

¹ RAHAL, (F) : *Chapitre II Entreposage*, Op.cit., p.4.

² LE MOIGNE, (R) : *Supply chain management*, DUNOD, 2nd edition, Malakoff, 2017, pp.271-272.

1.2.2. The storage zone:

The storage zone groups together (most often racks) separated from each other by circulation aisles. The aisles can be one-way or two-way. They are dimensioned to allow the movement of handling equipment.

The storage zone can itself be divided into two zones: a reserve zone and a picking zone. The picking zone is where the goods are stored for picking purposes and is generally replenished from the reserve zone.

1.2.3. The order preparation zone:

The order preparation zone is used to prepare customer orders (personalization, labelling). The dimensioning of the preparation zone will vary depending on whether the preparation is done in full pallets, in parcels or in individual items.

The preparation zone may also contain a consolidation zone. The consolidation area is used to group together all the preparations for an order.

1.2.4. The expedition zone:

The expedition zone includes a packing zone, a control zone, and a departure waiting zone.

- The packing zone is used to prepare goods for transportation. Packaging equipment such as stretch hooders and wrapping machines are located in this zone. The packing zone can be located upstream or downstream of the control zone.
- The control zone is used to verify that the order ready for shipment to the customer is compliant.
- The departure waiting and loading zone allows for the storage of goods that are ready before the truck's arrival.

1.3. Warehouse management:

Warehouse management are required to synchronize all of the activities concerning the inventory, space, equipment and people in their facility with a goal to minimize the cost and throughput time to process orders. They are responsible for all the movement of stock within a warehouse including all the paperwork involved.

The management duties include:¹

- Receiving replenishment stock from incoming vehicles and placing in the appropriate bins.
- picking stock to fill the steady flow of customer orders and placing in outgoing vehicles.
- Optimizing the space utilization and organizing the infrastructure to meet the needs of the operation.
- Providing an inventory system that minimizes the cost and maintains a high level of service to the customers. They must be vigilant to identify any parts that are in oversupply, and also any that are in short supply. The inventory should be set at a level to properly fill the customer orders, while surplus inventory, backorders and lost sales are low.
- Minimizing the workers time needed to place the stock in the bins, and also to pick the customer orders.

1.4. Maintenance:

Maintenance designates « *all technical, administrative and managerial actions during the life cycle of an item, intended to maintain or restore it to a state in which it can perform the required function* ». ²

Warehouse maintenance refers to the system a business owner has in place to keep the facility storing all of the company's products in functioning condition at all times. That means keeping conveyor systems running, making sure cranes work, and repairing any machinery in a timely manner to prevent disruptions to the day-to-day operations of a warehouse.

Warehouse maintenance is essential for business owners because any breakdowns of essential equipment will result in delays in getting products to customers, which results in lower customer satisfaction and lost sales. It also disrupts the overall operations of the business, making the company run less efficiently.³

¹ THOMOPOULOS, (N.T) : *Elements of Manufacturing, Distribution and Logistics*, Springer, Switzerland, 2016, pp.238-239.

² LE MOIGNE, (R) : Op.cit, p.186.

³ <https://www.fool.com/the-ascent/small-business/inventory-management/articles/warehouse-maintenance/>
(First Published on 18/05/2022, consulted on 05/06/2023 at 19:14).

2. The storage (or the inventory):

Inventories are raw materials, work in process, and finished goods that companies keep for different reasons such as saving time, to meet economic objectives, and as a buffer against uncertainties.

The basic element of customer service for all logistics is inventory availability, and generally the most expensive logistics cost is inventory. Effective inventory management decreases carrying cost and increases customer satisfaction at the same time.¹

2.1. Inventory costs:

The cost of inventory includes the products acquisition cost, the carrying cost, ordering cost, and the cost of stockouts.²

- **Acquisition cost:**

For a product purchased from a supplier, the acquisition cost includes the cost of the product and all the costs related to the acquisition of the product (such as transport, insurance or customs costs).

For a product manufactured internally, the acquisition cost includes the cost of components and manufacturing costs.

- **Carrying cost:**

The inventory carrying cost corresponds to all the costs associated with managing a product in stock. It consists of the cost of capital immobilization, storage cost, and depreciation cost.

- **The cost of capital immobilization** corresponds, at a minimum, to the amount of interest if the money necessary for the acquisition of the stock had been invested. This money cannot be used for other investments.
- **The storage cost** includes the cost of real estate, the expenses of personnel working in the warehouse and the cost of equipment (forklift, shelves, etc.).
- **The depreciation cost** corresponds to the expenses related to products obsolescence.
- **Ordering cost:**

¹ ZANJIRANI FARAHANI (R), REZAPOUR (S) and KARDAR (L): *Logistics Operations and Management*, Elsevier Science, 1st edition, 2011, p.188.

² LE MOIGNE, (R) : Op.cit, pp.244-245.

The ordering cost includes, for products ordered from suppliers, administrative costs (such as correspondence and telephone expenses or salaries and social charges of employees responsible for replenishment orders) and control costs (qualitative and quantitative control). For products manufactured by the factory, the cost of placing an order corresponds to the cost of launching production. The production launch cost includes the launch preparation costs (such as the production order editing cost) and costs associated with preparing the production line.

- **Stock out cost:**

The cost of stockout refers to the cost incurred when a customer order cannot be fulfilled. It may include loss of revenue, the cost of using urgent delivery means, cost of last-minute changes to production scheduling, and potentially, the cost associated with losing a customer.

2.2. Inventory functions:¹

The fundamental function of inventory is to act as a buffer that decouples the organization from the discontinuousness of customer demand on the one hand and limitations in supplier delivery capacities on the other. Optimally, businesses would like to carry as little inventory as possible, preferring to move purchase order receipts directly to the shipping dock to be met just-in-time with customer orders. In reality, the firm needs inventory to buffer it from the uncertainties of supply and demand.

Inventory control literature has traditionally identified five general functions for holding inventory: Cycle stock (or lot-size), safety stock, anticipation, transportation, and hedge (or speculative). A review of these functions is as follows:

- **Cycle (or lot-size) inventory:** This class of inventory is the result of ordering requirements that force planners to purchase, manufacture, and transport inventory in batches that exceed the original demand quantity. The basic reason why cycle stock inventory exists is because of economies realized by trading-off the cost of ordering or producing and the cost of carrying the inventory. In addition, cost trade-off economies occur for several other reasons. The frequency of item order cycles also may require the stocking of inventory in large lots. As the rate of the receipt of customer orders increases for a given product, planners normally will increase the acquisition lot size versus increase the replenishment order cycle. Finally, those channel nodes that

¹ ROSS, (D.F): Op.cit, p.252.

perform manufacturing functions often will produce lot-size inventory due to the cost of setting up a production line and gains in productivity attained by producing larger inventory quantities than required.

- **Safety stocks:** This type of inventory is held on hand to cover unplanned fluctuations in customer demand and the uncertainty of supply. If demand was to remain constant, inventory planners could rely on cycle stock to guarantee that there would always be sufficient stock on hand to meet demand. However, because products subject to independent demand can expect random periods of above average demand to occur, cycle stocks function best when there is a safety stock buffer. The amount of safety stock depends on the degree of random variation in demand, the lead time required to replenish stock, and the service reliability policy established at the stocking point. The larger the safety stock, relative to demand variation, the higher the percentage of customer serviceability.
- **Anticipation inventory:** Often inventories will be built in advance of demand to enable effective response to seasonal sales, a marketing promotional campaign, or problems in supplier delivery.
- **Transportation inventory:** Inventory in this category can be defined as products in transit (for example, in ships, railcars, or truck transport) from one node in the channel network to another. Transportation inventory exist because time is required to physically move stock through the channel. Supply chain nodes must plan to have additional inventories on hand to cover demand while inventories are in transit. Transportation inventory costs must be carefully examined when structuring a supply channel.

Management could reduce the transportation inventory cost by changing the mode of transportation or switching to a supplier closer to the plant. Another approach might be to gain economies by reducing the lot size of inventory received. Although this might mean more frequent deliveries and higher transportation costs, the overall decline in inventory carrying costs might justify the approach.

- **Work-in-process (WIP):** is a form of transportation inventory associated with manufacturing. The size of WIP inventory depends on such factors as the length of the process, nature of the product, and volume and variety decisions.
- **Hedge inventory:** The final function of inventory is to provide planners with the opportunity to purchase large quantities of raw materials or components to take

advantage of temporarily low replenishment prices, the possibility of a strike, or other opportunities. The utility of hedge stocks is measured by the resulting percent of profit or return on investment.

Recently, JIT/Lean Manufacturing techniques have prompted manufacturers and distributors to rethink the role of inventory in their organizations. No matter how it is accounted for, inventories add cost to the firm. Inventory can divert capital badly needed for improvement elsewhere. Poorly managed inventories can double or triple the cost of maintenance and destroy profitability. The challenge to both individual firms and the entire supply chain is to develop programs that cut inventories by eliminating "dead stock," improving quality, inventory planning, and ordering practices, and increasing organizational and supply channel flexibility while maintaining customer serviceability levels that exceed the competition.

2.3. Storage modes:

Several storage modes can be distinguished:¹

2.3.1. Static storage:

- **Shelving:**

Static storage can be done using cabinets or drawer units to store small parts, for example, but it is most often done using shelving systems. There are various types of shelves, depending on the nature of the products to be stored.

- **Pallet racks:**

In a pallet rack, pallets can be arranged either by width or by length, which facilitates the retrieval of items if picking needs to be done within the pallets and allows for maneuvering with forklifts. It should be noted that the pallets must be of high quality since they are supported only on their sides.

- **Double shelving:**

Double shelving consists of constructing two shelving units next to each other connected by spacers. Most often, each unit is accessible through its own aisle.

We can also have double-deep pallet, meaning that four racks can be constructed between two aisles, but the forklifts must have a special fork capable of picking up a double-deep pallet.

¹ PRIMOR, (Y) et FENDER (M) : Op.cit, p.241-246.

2.3.2. Mobile storage:

The shelving or pallet racking which supports the product moves with steel rollers on rails made of steel sections which may or may not be embedded in the ground, and a manual mechanical drive – with gear reduction wheel – or motorized drive makes it possible to move an entire row of shelving placed on a mechanically welded cart. This saves the space of the aisles since only one is enough for a set of shelves.

2.3.3. Horizontal or vertical rotating storage:

With vertical rotary storage, the most common, items are stored in racks or storage bins supported by swings that move along endless chains rotating between two horizontal axes several meters apart.

Horizontal rotating storage is carried out on a carousel with wire baskets hanging from a rail and circulating in a loop.

2.3.4. Dynamic storage:

This storage mode consists of more or less long storage blocks where the pallets or parcels of the same nature are placed one behind the other, either on rollers forming a slightly inclined plane, or on a horizontal conveyor. On the front side, pallets or parcels, or a portion of their contents, can be retrieved. Each time a pallet or parcel is removed, either in its entirety or because it is empty, the other pallets or parcels in the storage block move shift by one element.

2.4. Inventory management policy:¹

An inventory management policy defines the objectives and methods implemented for inventory management. Inventory management methods can vary by type of inventory (raw material, work in progress, semi-finished product, finished product, MRO product) or by product segment

ABC analysis is often used to define a differentiated inventory management policy based on the sales volume or usage of products.

¹ LE MOIGNE, (R) : Op.cit, pp.246-249.

2.4.1. Description of ABC Analysis:

ABC analysis is a technique that aims to segment products into three groups according to demand in order to define, for each group, an appropriate inventory management policy.

It is a technique based on W. Pareto's law, which assumes that a significant portion of sales is often generated by a limited number of products.

The product repository is segmented into three groups:

- Group A consists of references that constitute 80% of the volume (often representing around 20% of the references);
- Group B consists of references that constitute 15% of the volume (often representing around 30% of the references);
- And Group C consists of references that constitute 5% of the volume (often representing around 50% of the references).

Segmentation can be carried out according to other criteria such as price or weight.

The analysis of product consumption alone using ABC analysis is not always sufficient to define a v management policy. This policy may in fact vary for two products that have similar sales volumes but different demand variability. A product with high sales variability over the year may not be kept in stock throughout the year. The volume variability analysis allows to take into account not only the volume but also the demand variability to segment products.

2.4.2. Volume variability analysis:

Volume variability analysis is a technique that aims to segment products according to volume and demand variability and to define, for each segment, an appropriate inventory management policy.

This analysis segments the product repository into four groups (high consumption and high fluctuation products, low consumption and low fluctuation products, high consumption and low fluctuation products, low consumption and high fluctuation products). Based on this segmentation, an inventory management policy can be defined for each of the segments.

A different segmentation can also be used: high consumption and high fluctuation products, high consumption and low fluctuation products, medium consumption products and low consumption products.

3. The expedition process:

The expedition process is the set of steps to be carried out to transform a customer's need, as materialized by an order (or a delivery call), into the delivery of the desired product.¹

The expedition process can be summarized in the following steps:

3.1. Order registration:

Receive the customer's order and register it in the company's information system so that it appears in the various portfolios (manufacturing, expedition, supply, etc.).²

3.2. Order preparation:

This step involves picking and consolidating a certain number of items that make up customer orders.

3.3. Packaging and labelling:

Although all products are packaged in some manner, channel distributors may choose to repackage the products they receive for the following four reasons: (1) protection, (2) containment, (3) information, and (4) utility. Less than adequate packaging can lead to excessive costs due to damage and redundancies in handling. Excessive packaging, on the other hand, can lead to additional costs associated with bulk breaking and storage and equipment requirements. In addition, repackaging may occur to assist in unitization and identification.³

After the material is being packaged, it is placed into a box and enclosed by the cover. At this point, it becomes necessary to identify and label the box. Package labelling is any type of communication such as written, electronic, or graphic on the packaging-associated label. Whether words or code numbers are used depends on the nature of the product and its vulnerability to pilferage.⁴

3.4. Realization of transport documents:

¹ RAHAL, (F) : Chapitre IV Processus d'expédition, Op.cit, p.3.

² Ibid, p.4.

³ ROSS, (D.F): Op.cit, p.222.

⁴ ZANJIRANI FARAHANI (R), REZAPOUR (S) and KARDAR (L): Op.cit, p.172.

Depending on the types of transportation used and the destinations, certain documents need to be filled out. Additionally, many documents are specific as they depend on the product/country pair.¹

3.5. Expedition and transportation:

Prepare the loading of trucks, load them, and transport the products to their destination (transfer of ownership according to the Incoterm). With the delivery of the transportation documentation to the driver and obtain their signature.²

4. Reverse logistics:

4.1. Definition:

The Council of Logistics Management (CLM) defines RL as the « *term often used to refer to the role of logistics in recycling, waste disposal, and management of hazardous materials; a broader perspective includes a relating to logistics activities carried out insource reduction, recycling, substitution, reuse of materials, and disposal* ». ³

Reverse logistics is not just the collection of used, damaged or outdated products and packaging from end users, nor simply reducing wastes. The objective of reverse logistics is the effective coordination of both the forward and reverse processes necessary to fully utilize products and materials throughout their life cycles.⁴

4.2. Reverse logistics processes:⁵

The main reverse logistic processes are (1) collection; (2) inspection, selection, and sorting; (3) reprocessing (including repair, refurbishing, remanufacturing, retrieval, recycling, and incineration) or direct recovery; and (4) redistribution. Further definitions follow (Figure n°4):

¹ RAHAL, (F) : Chapitre IV Processus d'expédition, Op.cit, p.5.

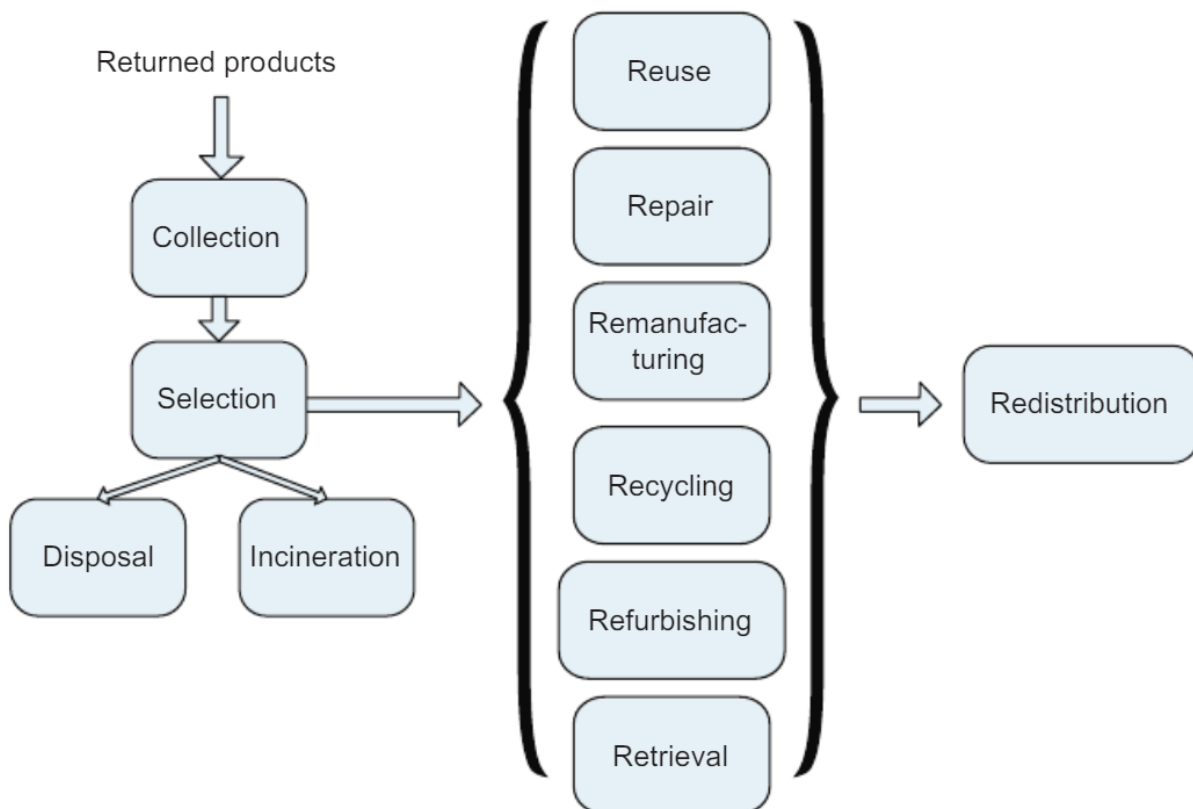
² Ibid, p.5.

³ ZANJIRANI FARAHANI (R), REZAPOUR (S) and KARDAR (L): Op.cit, p.247.

⁴ ROSS, (D.F): Op.cit, p.7.

⁵ ZANJIRANI FARAHANI (R), REZAPOUR (S) and KARDAR (L): Op.cit, pp.254-255.

Figure 4: Product flow in reverse logistics.



Source: ZANJIRANI FARAHANI (R), REZAPOUR (S) and KARDAR (L): Logistics Operations and Management, Elsevier Science, 1ST edition, 2011, p.254.

- In **collection**, used products are moved to a place for some specific treatment.
- In **inspection** and **separation**, products are inspected and separated by both their reusability and how they can be reused. Inspection and separation include activities such as disassembly, shredding, sorting, testing, and storage.
 - **Reuse** determines whether products still have enough quality and are in good enough condition that they can be used again.
- In **reprocessing**, a used product is converted into a usable product. This can happen at different levels: material (recycling), component (remanufacturing), product (repair), selective part (retrieval), module (refurbishing), and energy (incineration).
 - In **recycling**, product forms are changed into more basic forms such as scrap metal, glass, plastic, and paper.

- In **remanufacturing**, a product in whole or in part is used to create a new and usable product. Some of these activities include cleaning, disassembly, replacement, and reassembly.
- In **repairing**, broken products have some aspect of their life cycles restored, possibly with a loss of quality.
- **Refurbishing** refers to upgrading a product.
- In **incineration**, products are burned and the released energy is captured.
- In **disposal**, useless products that cannot be reused because of technical or economical reasons are discarded.
- In **recovery**, used material is captured, repaired, and remanufactured, a process that adds value.
- In **redistribution**, products are distributed to different markets. This step consists of storage, sales, and transportation.

Chapter conclusion:

In conclusion, distribution logistics involves the application of traditional logistics methods for optimized management of customer order flows, from the supplier's warehouse to the agreed-upon place of delivery in the commercial contract. It focuses on both the movement of physical flows through the distribution network and the management of the logistical infrastructures that compose it. Therefore, it is essential to pay special attention to this field in order to gain a competitive advantage and ensure continuity in the market.

The degree of mastery of distribution logistics activities and optimization of resource utilization (material, human and financial) determines the company's capacity to satisfy its customers by offering quality products and services that meet consumers' expectations. This aspect is referred to as commercial performance, this complex concept that we will aim to elucidate in the second chapter.

Chapter 02:

The commercial performanc

Chapter introduction:

The company faces numerous challenges, such as intense competition, market globalization, turbulence in the economic environment... to which its performance is very sensitive. This necessarily leads it to face it in order to guarantee its survival, its sustainability and increase its competitive advantage.

Commercial performance is a marker of the company's overall performance, its measurement is therefore extremely important for each company wishing to last over time in order to detect its degree of accomplishment of the pursued objectives.

In this chapter, we will attempt to outline the contours of this semantic diversity by following the plan below:

- The first section will be devoted to the concept of performance.
- The second section will introduce the commercial performance.
- The third section will cover evaluation modes and indicators of commercial performance.

Section 1: The performance concept

The concept of performance is ambiguous due to its use in various fields. The purpose of this section is to provide clarification regarding the basic elements of performance, in particular its origin, definition, related concepts, characteristics and its factors. Additionally, we will discuss the measurement of performance, and finally, conclude this section with an overview of different types of performance.

1. Definition of performance:

The noun performance dates back to the late 15th century and is derived from the Middle English term "performen" meaning "state of completion, accomplishment of an act."¹

At a simple etymological analyse of this term we can find that this is a term with a large use, in a variety of areas (sports, mechanical, economics) which over time turned into a polysemantic term on a basis of the field activity covered.²

The concept of performance lends itself to an almost infinite variety of definitions, many of which relate to specific contexts or functional perspectives.³ Consequently, we will address a set of definitions in order to better understand the meanings it conveys.

For Andy Neely: « *Performance is a relative concept defined in terms of some referent employing a complex set of time-based and causality-based indicators bearing on future realizations.* »⁴

According to BALLAND (S) and BOUVIER (A): « *Performance depends on the mastery of key success factors (FCS) which correspond to the particular capacities and skills that the company possesses and which are at the origin of a competitive advantage in a given sector of activity.* »⁵

For Herman Aguinis: « *Performance is a combination of two things:*

- *Behaviors and actions: What an employee does.*

¹ <https://www.etymonline.com/word/performance> (consulted on 28/05/2023 at 07:30)

² PINTEA, (M-O) and ACHIM (M-V): « *performance - an evolving concept* », Annals of University of Craiova - Economic Sciences Series, N°38, 2010, pp.1-12.

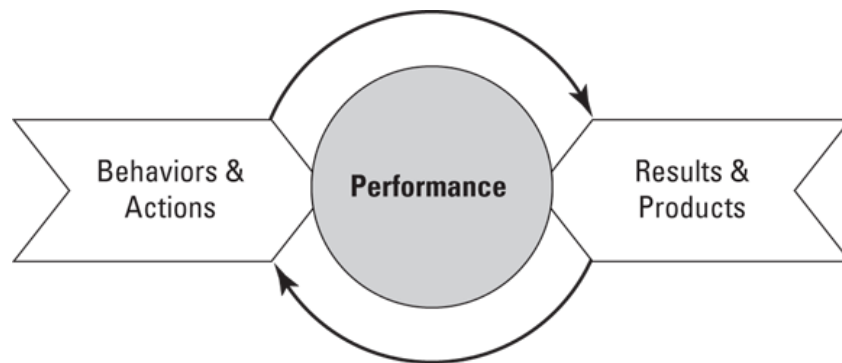
³ Ibid, p.3.

⁴ NEELY, (Andy): *Business Performance Measurement: Theory and Practice*, Cambridge University Press, Cambridge, 2004, p.78.

⁵ BALLAND, (S) and BOUVIER (A): *Management des entreprises en 24 fiches*, DUNOD, Paris, 2008, p.15.

➤ *Results and products: The outcomes of an employee's behavior.* »¹

Figure 5: Performance is a combination of behaviors & actions and results & products.



Source: AGUINIS, (Herman): *Performance Management For Dummies*, John Wiley & Sons, Inc, Hoboken, 2019, p.122.

2. Related concepts of performance:

The word "performance" is often confused with the concepts of efficacy, efficiency, and effectiveness, which are considered as related concepts despite the existence of differences between them.

2.1. The efficacy:

Efficacy can be defined as the degree of maximum achievement of the objectives set for the company. It is « *the ability to do what needs to be done.* ».²

Simply, we can consider a process or an activity to be effective if the results obtained are equal to or greater than the objectives,

In a more concise manner, this can be summarized by the following formula:

$$\text{EFFICACY} = \text{ACHIEVED RESULTS} / \text{OBJECTIVES TARGETED}$$

2.2. The efficiency:

Efficiency is « *Doing things right.* »³

« *Efficiency evaluates the ability to achieve a given result with minimal resources.* »¹

¹ AGUINIS, (Herman): *Performance Management For Dummies*, John Wiley & Sons, Inc, Hoboken, 2019, p.121.

² BENITO (N), COMBES (M) and FILLEAU (M.G) : *Gestion de la relation commerciale*, Dunod, Paris, 2006, p.142

³ NEELY, (Andy): *Op.cit*, p.35.

Efficiency is a measurable concept that can be determined using the ratio of useful output to total input. Increased efficiency minimizes the waste of resources such as physical materials, energy, and time while accomplishing the desired output.²

Therefore, we can summarize the efficiency in the following formula:

$$\text{EFFICIENCY} = \text{RESULTS ACHIEVED} / \text{RESOURCES UTILIZED}$$

2.3. The effectiveness:

Effectiveness is « *doing the right things* »³, It refers to the performance by the degree to which planned outcomes are achieved.⁴

The concept of effectiveness is strongly related to satisfaction with the results obtained.

We can summarize it in the following formula:

$$\text{EFFECTIVENESS} = \text{LEVEL OF SATISFACTION OBTAINED} / \text{RESULTS}$$

3. Performance characteristics:

Author Michel Lebas characterizes the performance as future-oriented, designed to reflect particularities of each organization / individual and is based on a causal model linking components and products.⁵

According to AGUINIS, there are two characteristics of the behaviours and results we label “performance”.⁶

- **Performance is evaluative**, which means that it can be judged as negative, neutral, or positive for individual and organizational effectiveness. In other words, the value of these behaviours and results can vary depending on the extent to which they make a contribution toward the accomplishment of individual, unit, and organizational goals.
- **Performance is multidimensional**, which means that there are many different types of behaviours and results that have the capacity to advance (or hinder) organizational goals.

¹ BENITO (N), COMBES (M) and FILLEAU (M.G) : Op.cit, p.142

² <https://www.investopedia.com/terms/e/efficiency.asp> (consulted on 09/06/2023 at 20:18)

³ NEELY, (Andy): Op.cit, p.35.

⁴ PINTEA, (E-I) and ACHIM (M-V): Op.cit, p.3.

⁵ ION, (M-O) and CRIVEANU (M): « *ORGANIZATIONAL PERFORMANCE* », Annals of the Constantin Brâncuși University of Târgu Jiu, Economy Series, N°4, 2016, pp.179-183.

⁶ AGUINIS, (Herman): Op.cit, p.122.

4. Performance factors:

The performance factors for a company must be continuously identified, analysed and adapted and also interdependent and maintain a balance between them. Any major change in one or more performance factors will have consequences on the other factors. Moreover, if one performance factor is weaker compared to the other factors, it creates an imbalance and the performance of the company will be affected. In this case, there are several factors which are:¹

- Customers are becoming more and more demanding while the company, for its part, must satisfy them, build their loyalty and involve them in improving its products and services;
- The mission and objectives must be achievable, known and shared by all staff;
- The process: according to HAMMER (M) « *The more complex the work, the more processes are necessary* »;
- Products must be effective and efficient;
- Information: Information on the external environment will be the most important information for a manager;
- Information, communication and production technologies must be efficient, integrated and user-friendly;
- Human resources: according to PETER (D) « *The scarcest resources in any organization are high performers* ». This is why the company must recruit competent, responsible people and motivate them;
- Management style: « *Without organization, there is no management. Without management, there is no organization* » PETER (D);
- Performance indicators must relate to quality, time and cost, as they must be balanced and aligned with the objectives of the company.

5. Performance measurement:

As the saying goes “You can't improve what you don't measure.”

Performance is measured with two aspects: an objective measure and a subjective measure:²

¹ AMRANI, (R) and AMRANI (E): La mesure de la performance commerciale d'une entreprise: Cas d'ELECTRO-INDUSTRIES, Master's thesis in Management Sciences (option: Strategic Management), Mouloud Mammeri University of Tizi-Ouzou, 2018, p.44.

² BOUHENTALA, (A.K): *L'impact de la logistique de distribution sur la performance commerciale de l'entreprise ETUDE DE CAS : SCIMAT*, Master's thesis in commercial sciences (Option: Distribution and Supply Chain Management), EHEC, 2021, pp.33-34.

5.1. Objective performance measurement:

The objective measurement of performance is relatively easy to determine, because it is part of the basic data usually available to the company. The objective criteria are divided into two types of measurement:

- The measurement of the seller's output, which refers to the results of his actions (volume sold or produced, number of files processed, etc.). This measure is rather quantitative.
- The measurement of the seller's input, that means his efforts and his actions and the way in which they are carried out. This measure is more qualitative.

5.2. Subjective performance measurement:

The subjective measurement of performance primarily revolves around qualitative criteria that assess the behaviours of the seller. Overall, the seller's behaviour is analysed based on several criteria:

- Adaptive selling: It refers to the quality of both the commercial relationship and customer satisfaction, positive influence in the sales relationship, as well as the seller's combativeness and adaptability to the customer and to the sales situation.
- Technical mastery of the offer and the quality of sales presentations: mastery of the commercial argumentation and valuation of the offer.
- Information quality: gathering information by the salesperson within the framework of competitive intelligence and routine information.
- Product and competitor knowledge, ethical behaviour.
- Sales expenses control: compliance with allocated budgets and cost control.
- Inter-organizational cooperation and the effectiveness of negotiation techniques: teamwork and cooperation with colleagues and other members of the organization.
- Planning capacity, time management.

6. The types of performance:

Performance being a multidimensional term present in various domains is meant to be an essential element for the company in view of the interdependence between its types

(economic, financial, commercial performance, etc.), which leads us to distinguish them as follows:¹

6.1. Economic performance:

6.1.1. Definition of economic performance:

Economic performance can be defined as the profitability of the company and its ability to achieve the set objectives, so it lies in the survival of the company.

« Economic performance can be measured from the variation in activity and the return on investment and sales. Understanding economic performance can also come from insightful analysis of the income statement. Indeed, the net profit (or the net loss) is a final measure of the company's profitability that allows the shareholders and the financial analysts to assess the performance of a company. »

6.1.2. Economic performance measurement indicators:

To measure the economic aspect of performance, several evaluation elements have been suggested. The criteria for evaluating economic performance are distinguished as follows:

- Productivity
- Quality of products and services
- Resource efficiency
- Competitiveness
- Profitability
- Turnover
- Added value
- Meeting deadlines

6.2. Financial performance:

6.2.1. Definition of financial performance:

The financial performance of a company is linked to the economic performance, which refers its ability to achieve financial results in a given period in an optimal way, this typically involves financial objectives in the business plan, as well as objectives related to sales, margins, profitability...

¹ CHEKLAL, (K): *L'impact de la logistique de distribution physique sur la performance commerciale de l'entreprise ÉTUDE DE CAS : LAITERIE ARIB SPA*, Master's thesis in commercial sciences (Option: Distribution and Supply Chain Management), EHEC, 2022, pp.51-53.

Often, financial performance is evaluated based on accounting documents.

Measuring financial performance is important, as certain companies are required to produce accounting documents at the end of each fiscal year (balance sheet, income statement, accounting entries, etc.), these documents contain a vast amount of data and information that form the basis for measuring performance.

6.2.2. Financial performance measurement indicators:

According to Alfred (s): « *we measure financial performance by **ROI** and **ROE** indicators (ratios)* ».

- **ROI (return on investment):** This ratio measures the economic profitability of the capital employed by the company. It is the ratio between operating result and invested capital.

Its formula is as follows:

$$\text{ROI} = \frac{\text{The operating result}}{\text{the capital invested}}$$

- **ROE (return on equity):** it measures the financial profitability of the capital contributed by the owners of the company; thus, it represents the ratio between the net result and the equity.

It is calculated as follows:

$$\text{ROE} = \frac{\text{Net Income}}{\text{Equity Capital}}$$

6.3. Commercial performance:

Commercial performance can be defined as the company's ability to satisfy its customers by offering quality products and services that meet consumer expectations. Companies aiming for commercial performance must take into account the needs of their customers, consider their competitors' strategies in order to maintain or even expand their market shares. Several indicators allow measuring commercial performance, among which we cite:¹

- Market share.
- Customer loyalty.
- Attraction of new customers.
- Customer satisfaction.

¹ OUATTARA, (P.V) : Diagnostic financier et performance d'une entreprise en Cote d'Ivoire, MBA in Corporate Finance, Ecole Supérieure de Gestion de Paris, 2007.

- Profitability by segment, by customer, by product, by market.

Section 2: The commercial performance

In this second section, we will present some definitions of the commercial function, we will then explore the commercial performance concept, starting with its history and evolution, followed by its definition, and finally, we will discuss the commercial performance determinants.

1. The commercial function:

The commercial function has developed progressively within companies. It was originally divided between other dominant functions such as production or finance. With the growth of firms and markets, the consolidation of different commercial tasks has allowed the commercial function to assert itself within corporate structures.¹

The commercial function is the interface between the company and the customers. Its mission is to increase turnover and margins, and to develop commercial productivity, as the company's financial resources are limited.²

We can distinguish three fundamental objectives of the commercial function:

« Developing sales revenue and profit margins, increasing commercial productivity, improving the skills of salespeople »:³

➤ Developing sales revenue and profit margins:

Today, the sales revenue and profit margins are no longer limited to (how many) but are systematically accompanied by a (how), a (where), a (with whom).

Indeed, the increasing difficulty of business means that the sales department will reflect on the most productive targets, the most valuable customers, the most accessible prospects... etc.

➤ Increasing commercial productivity:

The demand in terms of commercial performance is constantly increasing. However, resources are limited. We are witnessing a rationalization of sales force activity and a

¹ COCULA, (F): *introduction générale à la gestion*, DUNOD, 5th edition, Paris, 2014, p.9.

² SELMER (C), TRABELSI (M) and LAGODA (J-M): *Contrôle de gestion, 99 fiches opérationnelles*, Eyrolles, Paris, 2019, p.135.

³ BLANC, (M.A) and LE GALL (M.P) : *toute la fonction commerciale*, éditions Dunod, Paris, 2006, pp.7-9.

reorganization of teams. Staff and hierarchical levels are reduced, the number of clients per salesperson and the frequency of visits often increased.

➤ **Improving the skills of salespeople:**

The commercial function benefits from an improving image year after year. The upskilling of salespeople certainly contributes to this. The commercial department accompanies these changes and promotes skills development.

2. The commercial performance:

2.1. History and evolution:

Traditionally, commercial performance is based almost solely on numbers. The sales manager evaluates the performance of his teams in relation sales volume, turnover and the margin.

Only everything has changed. The digital transition, the cloud, Generation Y, the era of the consumer, all the elements have come together to bring this obsolete performance monitoring system to the ground.

The arrival of CRM and sales support software has exploded the data. Sales departments now have at their disposal a frightening number of performance indicators with an ever-deeper level of granularity. Commercial performance has expanded and become more complex, it now covers a different reality for each company, even for each employee or manager each of whom has their own indicators to measure their results. But above all, the commercial strategy now also includes the notion of transformation: the indicators are no longer there only to measure results but rather to motivate behaviours that are sources of performance.¹

2.2. Definition:

Commercial performance is linked to the satisfaction of the company's customers.²

Commercial performance can be defined by a company's ability to offer a product/service adapted to consumer needs, while deploying an optimal organization and processes.³

¹ BENEDDOUCHE, (Y-N) and DADDI ADDOUN (D): Impact de la logistique de distribution sur la performance commerciale Etude de cas : Nestlé Algérie Spa, Master's thesis in commercial sciences (Option: Distribution and Supply Chain Management), EHEC, 2021, p.48.

² ISSOR, (Zineb): « *la performance de l'entreprise : un concept complexe aux multiples dimensions* », Projectics / Proyéctica / Projectique, N°17, 2017, pp.93-103.

³ <https://www.ideagency.fr/performance-commerciale> (Published on 07/06/2022, consulted on 10/06/2023 at 22:53).

According to CHESTER: « *the commercial performance of a company can be defined as the achievement of commercial objectives relative to the means deployed to achieve them* ». ¹

According to the definitions we have established, the commercial performance of the company aims to achieve the objectives initially set by the company and more particularly, to satisfy customers and retain them.

2.3. The determinants of commercial performance:

Several factors can contribute to commercial performance. However, the components that have a direct influence on commercial performance are the following: ²

2.3.1. Service quality:

The quality of the service or product is one of the essential elements of the attractiveness of an offer. It encompasses all the characteristics of a product or service that affect its ability to satisfy expressed or implicit needs. There is therefore a very close link between service quality and customer satisfaction, which is why it requires special attention from managers regarding this determinant.

2.3.2. The financial capacity of resellers:

It refers to the set of financial resources available to resellers of a product or service to ensure the proper functioning of their activities. It has an influence on almost all commercial performance indicators.

2.3.3. Production capacity:

This is the quantity of product offered by the company to satisfy a demand during a given period. A significant increase in stocks is considered to represent production not compensated by current consumption, while a chronic decrease in stocks reflects a consumption surplus over current production. Therefore shortages, as well as excess stock of a product, handicap the commercial performance of a distribution network.

¹ GUERINIK, (I): *Le rôle de la logistique de distribution dans l'amélioration de la performance commerciale. Etude de cas SAIDAL*, Master's thesis in commercial sciences (Option: Distribution and Supply Chain Management), EHEC, 2019, p.32.

² BONA MAKONGO, (C.W): *Evaluation de la performance commerciale d'un réseau de distribution de la téléphonie mobile, une application à KFS EVD Partner MTN*, DESC, Essec Douala, 2008.

2.3.4. The diversity of the offer:

The offer diversification policy was established in order to be able to meet the needs of the company's various market segments. The multiplicity of product or service ranges available to consumers has a direct impact on customer satisfaction and therefore on sales volume.

2.3.5. The extent of the distribution network:

Product availability is a key element in customer satisfaction, and also has an undeniable influence on commercial performance. Therefore, the more the network is extended, the greater the chances for the company to reach the maximum number of consumers, who will be able to assess the product's quality according to their needs and their expectations. The number of resellers also has a direct impact on overall network sales.

Section 3: Commercial performance evaluation modes and indicators

Commercial performance is a complex concept; however, its measurement remains possible, which leads us in the course of this work to present a set of well-selected qualitative and quantitative indicators, thus giving more visibility to manage it. This section will also cover the notions of performance indicators and the modes of evaluating commercial performance.

1. Commercial performance evaluation modes:¹

According to LANGE (M) and MOUTOT (J.M): « *Evaluation consists of making measurements that allow us to determine whether a process is performing well or not, and what are the corrective and improvement actions to be carried out* ».

There are two modes of evaluating commercial performance: based on an indicator and through a dashboard.

1.1. Evaluation based on an indicator:

Evaluation based on an indicator can be classified according to three categories based on the type of information transmitted and the expectations of the decision-maker:

- Balance indicator: This type of performance indicator closely linked to objectives is somewhat the compass for the decision-maker. It provides information on the state of the system under control in relation to the objectives monitored.

¹ BOUHENTALA, (A.K): Op.cit, pp.41-42.

- Anticipation indicator: A dashboard is also an instrument of perspective. With a few anticipation indicators, a good dashboard allows you to see a little further than the end of your screen and to consider the current situation with a better basis.
- Alert indicator: This type of "all or nothing" indicator signals an abnormal state of the controlled system requiring an action, immediate or not. A critical threshold crossing, for example, falls into this indicator category.

1.2. Evaluation based on a dashboard:

The dashboard is a very important management tool presenting synthetically the company's activities and results by process, in the form of indicators, allowing to monitor the achievement of the objectives set and to take the necessary decisions according to an appropriate periodicity and within a limited timeframe. In particular, it fulfils the following roles:¹

- A system of alerts and action: it allows the necessary measures to be taken when deviations are detected between what is planned and what is actually happening;
- A means of learning: conclusions are drawn from observed deviations and the actions implemented to correct the situation;
- It allows forward projection and thus have information to establish your forecasts.

2. Notions on performance indicators:

2.1. Definition:

A performance indicator, or key performance indicator (KPI), is a performance measurement tool that enables organisations to measure success in their activities, including projects, programs or products. A key performance indicator's work is to measure periodic levels of achievements and progress towards goals. Performance indicators can vary from one sector or department to another.²

A performance indicator is an organizational parameter that can be acted upon. It is defined as « information intended to help an individual or collective actor to guide the course of an action towards the achievement of an objective or to enable him to evaluate the result ». The indicator must contribute to the assessment of the situation by the owner-manager of the company. It must go beyond a simple observation of the situation and allow dynamic

¹ BENDEDDOUCHE, (Y-N) and DADDI ADDOUN (D): Op.cit, pp.56-57.

² <https://au.indeed.com/career-advice/career-development/what-is-performance-indicator> (Consulted on 11/06/2023 at 05:34).

management of activities. Performance indicators must be seen as tools forming an integral part of the company's control and management system.¹

2.2. The characteristics of the indicators:

The indicators must possess a set of specific qualities, which are:²

- **Pertinence:** Obviously, the acquisition, processing, analysis and decision-making, based on an irrelevant indicator, is a waste of time and money. The indicator must be useful and aligned with the strategic and operational objectives, and its use must contribute to their achievement.
- **Precision:** This characteristic involves several essential qualities. An indicator must be clear, meaning it should be formulated in a way that is easily understandable.
- **Feasibility:** To be usable, an indicator must be supplied with existing and available data, when required.
- **Usability:** This quality refers to the fact that an indicator must be easily accessible, readable, understood and accepted uniformly by all the people concerned. It must also be presented in a way that it conveys meaning and is easily interpretable.

3. Commercial performance indicators:

There are two types of commercial performance indicators: quantitative indicators and qualitative indicators.

3.1. Quantitative indicators:

These are measurement tools or criteria for assessing commercial performance at a given time. They take the quantitative form allows monitoring a parameter in a management approach.

Among the quantitative indicators of commercial performance, we can identify six (6) main indicators:³

- ✓ Quantities sold
- ✓ Turnover
- ✓ The commercial margin

¹ LEBEL, (L): *L'entrepreneur forestier du Québec*, PREfoRT, Québec, 2010, p.182.

² Ibid, pp.182-183.

³ BOUDERSA, (D): *Le rôle de la logistique de distribution dans l'amélioration de la performance commerciale de l'entreprise Etude de cas : TONIC INDUSTRIE*, Master's thesis in commercial sciences (Option: Distribution and Supply Chain Mangement), EHEC, 2016, pp.60-63.

- ✓ Market share
- ✓ Profit
- ✓ Number of new customers.

3.1.1. Quantities sold:

The quantities sold constitute a basic indicator in the management of the company in general, and of the commercial function in particular. They are used to know the satisfaction rate of the demand on the market, and the real weight compared to the competitors as means of comparison.

The performance in this case is calculated through the difference of the previously forecasted volume and the actual volume achieved.

PERFORMANCE (P) = ACHIEVEMENT- FORECAST
--

If $P > 0$, it is considered as good performance.

If $P = 0$, it is considered as poor performance.

3.1.2. Turnover:

The turnover is the amount achieved by the company with third parties in the exercise of its normal and current professional activity.

More precisely, « *it is the number of invoices issued during a financial year, sent to customers and corresponding to work, supplies or services that have been completed or are in the process of being delivered at the end of the financial year and provided that they result of the company's normal professional activity. Turnover is shown excluding tax in the income statement, in operating income* ».

According to Burland (A) and others, turnover can be defined as follows: « *Turnover is the sum of sales of goods (commercial activity) and output sold (production of goods and services). This is the main activity indicator of the company. It determines the overall performance* ».

To develop this indicator, the company can proceed with two levers:

- Quantities: Succeeding in selling a larger volume compared to the previous period.
- Prices: Selling at a higher price.

TURNOVER= QUANTITY SOLD * UNIT PRICE

Performance in this case is measured by comparing the forecasted revenue and the actual revenue achieved during the given period.

3.1.3. The commercial margin:

The commercial margin is the difference between the turnover excluding tax corresponding to the sale of goods and the purchase cost excluding tax of these goods sold.

This indicator has the merit of simplicity of calculation and becomes very useful during commercial decision-making.

The concept of commercial margin is very close to that of the margin on variable cost used in analytical accounting (which allows costs to be analysed from variable angles). The variable cost margin includes all variable costs.

A company can increase its commercial margin by:

- Increasing its sales volume
- Increasing the average selling price of products
- Reducing the cost of purchasing goods
- Reducing the average purchase price to suppliers

$\text{COMMERCIAL MARGIN (M)} = \text{SALE OF GOODS} - \text{PURCHASE COST OF GOODS SOLD}$
--

And

$\text{COST OF GOODS SOLD} = \text{PURCHASE OF GOODS} + \text{INITIAL INVENTORY} - \text{FINAL INVENTORY}$
--

The commercial margin is a more meaningful indicator than the turnover, it helps determine the selling price compared to the purchase price, it also serves as an aid to commercial decision-making.

3.1.4. Market share:

A market share represents the percentage of sales made by a company for a given product or service compared to all competitors.

Merely examining the company's turnover does not provide information on whether it has gained or lost ground compared to its competitors. The answer to this question lies in the study of the market share.

This indicator is very important for the company as it allows it to position itself in relation to the competition, it can be measured in volume or value and is calculated by dividing the company's sales over the total market sales:

$$\text{MARKET SHARE} = \text{UNIT SALES} / \text{TOTAL PRESENT UNIT SALES}$$

3.1.5. Profit:

It is the difference between total revenue and total expenses during a given period.

$$\text{PROFIT} = \text{TOTAL REVENUE} - \text{TOTAL EXPENSES}$$

3.1.6. Number of new customers:

The number of clients is not stable there are those who are born and live and die. Therefore, it is necessary to replace the disappearing customers with new ones.

Acquiring new customers, is prospecting. Salespeople must, in the interest of the company, have the ambition to enrich the customer database with new clients, they must diversify the customer base to reduce the exposure of the company's turnover to economic fluctuations or to ruptures with this or that client.

3.2. Qualitative indicators:

Qualitative indicators are metrics that measure subjective or intangible aspects of performance. These indicators are typically expressed as opinions, experiences or other qualitative data points and provide valuable insight into how a business is perceived and can help inform decision making.¹

Among the qualitative indicators of commercial performance are:

3.2.1. The company's image:

The company image, sometimes referred to as the brand image, is an important element for consumers and distributors. It is the primary criterion for reference before advertising

¹ https://www.splunk.com/en_us/blog/learn/kpis-key-performance-indicators.html (Published on 03/05/2023, consulted on 11/06/2023 at 08:44).

campaigns and promotional actions. It encompasses the product, its style, its producer, its advertising, its price, its distribution... Certain companies have, thanks to an effective commercial policy, built a highly positive brand image.¹

3.2.2. Customer satisfaction:

Satisfaction can be defined as the positive or negative impression felt by a customer regarding a purchase and/or consumption experience. It results from a comparison between their expectations of the product and its perceived performance. It is sometimes considered as an emotion, sometimes as a cognitive appreciation, often as a mixture of both.²

If performance < expectation $\Longrightarrow$ The client is dissatisfied.

If performance = expectations $\Longrightarrow$ The client is satisfied.

If performance > expectations $\Longrightarrow$ The customer is very satisfied.

Satisfaction is not an end in itself. It can often be improved by lowering prices or multiplying services, without this being profitable for the company. In reality, satisfaction is a goal when it promotes loyalty and stimulates sales: a satisfied customer is generally less sensitive to the price and offers of competitors, buys more products from the company and speaks positively about it. Overall, customer satisfaction is positively correlated with the return on investment of the company, sales, long-term financial value, and other performance indicators.³

3.2.3. Customer loyalty:

Loyalty can be defined as « *a deeply held commitment to rebuild and re-patronize a preferred product or service in the future despite situational influences and marketing efforts having the potential to cause switching behaviours* ». ⁴

Loyalty is more profitable, the expenses to gain a new customer is much more than retaining existing one. Loyal customers will encourage others to buy from you and think more than twice before changing their mind to buy other services. Customer loyalty is not gained by an accident, they are constructed through the sourcing and design decisions. Designing for

¹ DEMEURE, (C) and BERTELOOT (S): *Aide mémoire - Marketing*, DUNOD, 7th edition, Paris, 2015, pp.149-150.

² KOTLER (P), KELLER (K) et MANCEAU (D): *Marketing Management*, Pearson, 15th edition, Montreuil, 2015, p.150.

³ Ibid, pp.151-152

⁴ KHADKA, (K) and MAHARJAN (S): CUSTOMER SATISFACTION AND CUSTOMER LOYALTY, Thesis in Business Management, Centria University of Applied Sciences, 2017, p.48.

customer loyalty requires customer centered approaches that recognize the want and interest of service receiver. It is built over time across multiple transactions.

Customer loyalty can be divided into three different categories that include behaviour loyalty, intentional loyalty, and emotional loyalty. Behaviour loyalty is repeating purchasing behaviour while intentional loyalty is the possible buying intention. Emotional loyalty, however, is achieved when a customer feels that a brand corresponds with their value, ideas, and passion.

Chapter conclusion:

Throughout this chapter, we have been able to see to what extent commercial performance is a major issue on which the growth of a company and its position in the market compared to competitors depend.

At first glance, one would be tempted to summarize commercial performance in the right figures, but it goes far beyond quantitative indicators, in fact, knowing how to meet customer needs and satisfy them by offering them the right product or service weighs in the performance balance. To measure this, we are more interested in indicators of quality, of customer loyalty, for example. Its improvement is therefore generally a crucial aspect of any business strategy.

Additionally, increasing the commercial performance of the company requires in-depth reflection, going beyond the scope of the commercial function, this is what we will try to demonstrate in the third chapter, evoking the impact of distribution logistics on commercial performance within the DEF MED company.

Chapter 03:

**The impact of distribution
logistics on the commercial
performance**

Chapter introduction:

In our research work, so far, we have only presented the elements of distribution logistics and commercial performance from a theoretical perspective. Now, it is time to adopt a practical and operational approach in the field and attempt to establish a link between the two variables and determine the impact of distribution logistics on commercial performance within DEF MED Spa.

This chapter is divided into three sections:

- The first section will provide an overview of DEF MED Spa as a whole.
- The second section will focus on distribution logistics within the company.
- The third section will conclude with qualitative research on the impact of distribution logistics on commercial performance, conducted with the relevant managers. This will be followed by a general summary and a set of suggestions.

Section 1: General presentation of the company

This section will be dedicated to the presentation of the HYDRAPHARM Group, its values, its history, its services, and its subsidiaries. Then, we will present the DEF MED subsidiary, its activities, missions, and objectives, as well as an overview of its organizational structure.

1. Presentation of the HYDRAPHARM Group:

Founded in 1995, HYDRA PHARM is an Algerian company oriented towards the distribution of pharmaceutical products.

HYDRA PHARM offers its partners a platform of integrated services deploying all the professions of the value chain: direct and indirect distribution, import, medical information and manufacturing of pharmaceutical products.

The investment by WALGREENS BOOTS ALLIANCE, a global leader in the sector, in the company's capital in 2007 defines the HYDRAPHARM Group as an expansion platform for the Maghreb and West Africa.¹

1.1. The values of the HYDRAPHARM group:

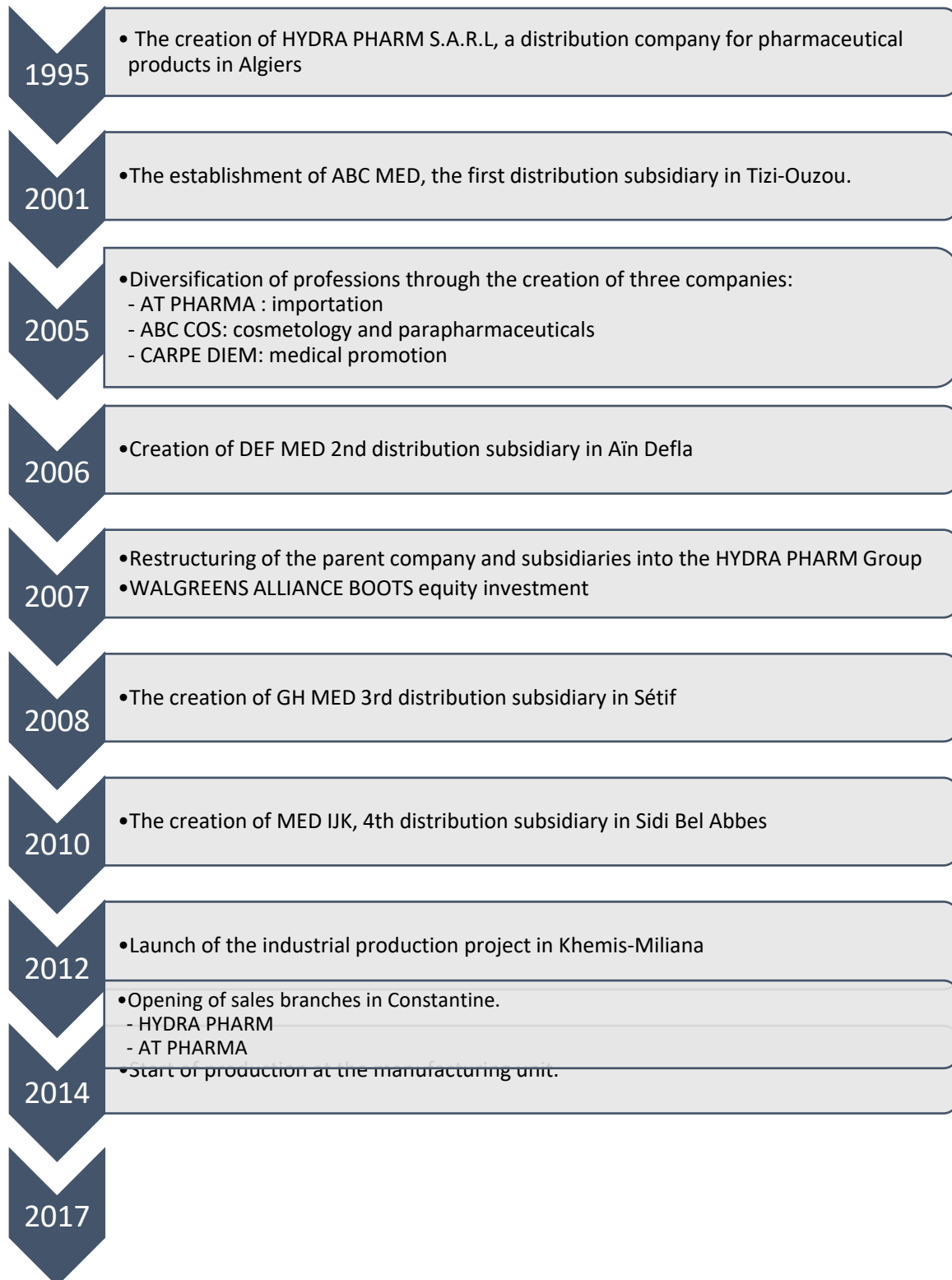
The group values are as follows:²

- Proximity:
 - Continuous listening
 - Customer support
 - Daily accessibility
- Commitment:
 - Quality of service
 - Meeting demand
 - Reactivity
- Integrity:
 - Adherence to ethical rules
 - Compliance with laws and regulations
 - Confidentiality

¹ https://www.groupehydrapharm.com/article_2.html (consulted on 08/04/2023 at 21 :14)

² https://www.groupehydrapharm.com/article_4.html (consulted on 10/04/2023 at 17:32)

1.2. History of the HYDRA PHARM group:



Source: Elaborated by us based on internal company documents.

1.3. Subsidiaries:

The HYDRAPHARM Group currently has:

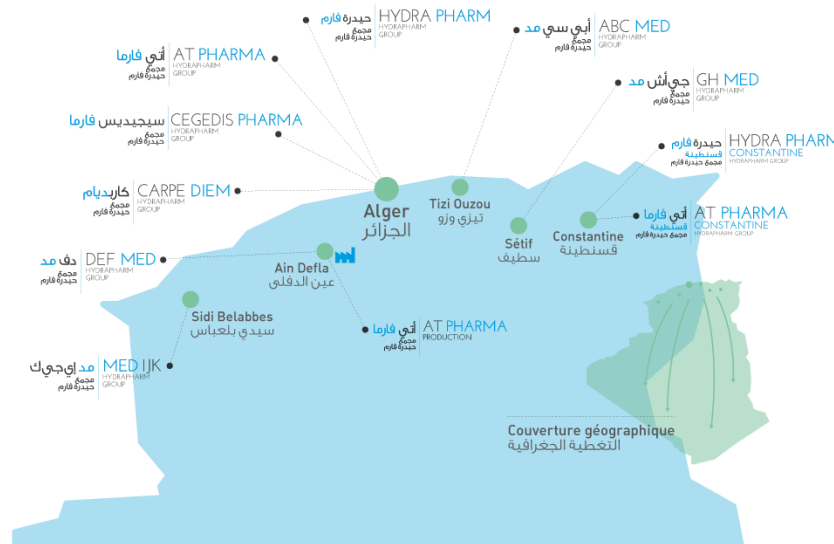
- 05 pharmaceutical product distribution subsidiaries (HYDRA PHARM Alger, ABC MED Tizi-Ouzou, DEF MED Ain Defla, GH MED Sétif, MED IJK Sidi Bel Abbes)
- 02 importation and distribution subsidiaries (AT PHARMA Alger, CEGEDIS PHARMA Alger)
- 01 medical information and marketing subsidiary (CARPE DIEM Alger)
- 01 production subsidiary (AT PHARMA Khemis Miliana)
- 02 regional sales branches (HYDRA PHARM Constantine, AT PHARMA Constantine)

The HYDRA PHARM group in a few figures:¹

- 30% market share
- 11 logistics platforms
- +6000 references offered
- +9000 pharmacies covered (direct and indirect distribution)
- 28000m² of storage area
- 48 provinces served
- 178 wholesalers, distributors and hospital pharmacies supplied
- +80 pharmaceutical partner laboratories
- +2000 employees
- 1000 References imported
- 250 million boxes: delivered per year
- 70 million boxes: production capacity

¹ https://www.groupehydrapharm.com/article_5.html (consulted on 10/04/2023 at 17:41)

Figure 6: geographical coverage of the HYDRAPHARM group



Source: https://www.groupehydrapharm.com/article_2.html (consulted on 08/04/2023 at 21:24)

1.4. Services offered by the HYDRA PHARM group:

The HYDRA PHARM group offers its partners a platform of integrated services deploying all the professions of the value chain.¹

1.4.1. Direct distribution and allocation:

The HYDRA PHARM Group has established a distribution-allocation platform equipped with an efficient logistics chain and a strategic safety stock distributed across all subsidiaries and distribution centers.

The HYDRA PHARM Group has set up a distribution-distribution platform equipped with an efficient supply chain and a strategic safety stock distributed in all the subsidiaries and distribution centers.

Each subsidiary has a regional call center, a storage site that complies with good distribution practices standards, qualified personnel and a fleet ensuring several daily rotations.

¹ https://www.groupehydrapharm.com/article_6.html (consulted on 11/04/2023 at 17:56)

1.4.2. Indirect distribution and importation:

AT PHARMA, a subsidiary of the HYDRA PHARM Group, dedicated to importation, is in partnership with more than 60 national and international pharmaceutical laboratories.

Relying on efficient logistics infrastructures and a dense distribution network covering more than 9,000 pharmacies, AT PHARMA also supplies 120 wholesaler-distributor customers, the central pharmacy of hospitals and numerous public and private healthcare establishments.

CEGEDIS PHARMA, a subsidiary of the HYDRA PHARM Group, exclusively imports and distributes generic para-pharmaceutical products.

1.4.3. Medication production:

In 2012, the HYDRA PHARM Group created a medication production unit in Khemis-Miliana (province of Aïn Defla), designed to international norms and standards.

Meeting the standards of good manufacturing practices (GMP) and equipped with the latest technologies, the unit is dedicated to the production of tablets, capsules, powders, granules and soft capsules.

The production unit will eventually operate seven (7) packaging lines with an annual production capacity of 70 million boxes (blisters, sachets, sticks, pillboxes).

This investment will support the HYDRA PHARM Group's international strategy and its development on the regional and continental market.

1.4.4. Medical information and marketing:

CARPE DIEM, a subsidiary of the HYDRA PHARM Group, specializes in medical and pharmaceutical information and promotion.

In direct relation with health professionals, in all therapeutic areas, the Carpe Diem company offers pharmaceutical laboratories a wide range of services, including:

- The implementation throughout the national territory of networks of medical and pharmaceutical representatives, supervised by a team of managers with nearly 20 years of expertise in the profession.

- Developing, launching and monitoring marketing campaigns for pharmaceutical products, medical devices and food supplements.
- Regulatory representation with public authorities and support in all procedures relating to the registration and marketing of pharmaceutical products, medical devices, food supplements.

2. Presentation of the DEF MED subsidiary:

DEF MED is classified as the second subsidiary of the HYDRAPHARM group which specializes in the distribution of pharmaceutical products.

We can summarize the presentation of DEF MED as follows:

- Date of creation: 2006
- Legal status: SPA
- Corporate purpose: the distribution of pharmaceutical products,
- Head office: Oued Errihane, section N 01, group of properties, N 51 Khemis Miliana, Aïn Defla.

2.1. The main activities of DEF MED:

- The B to C activity: Business to Consumer is the main activity of DEF MED, the sale and distribution of medicines to pharmacies (carried out by the sales department).
- The B to B activity: Business to Business reflects the transactions, supply and receipt of products from the company's suppliers (national and foreign laboratories and producers), this activity is carried out by the purchasing department.

2.2. DEF MED's objectives:

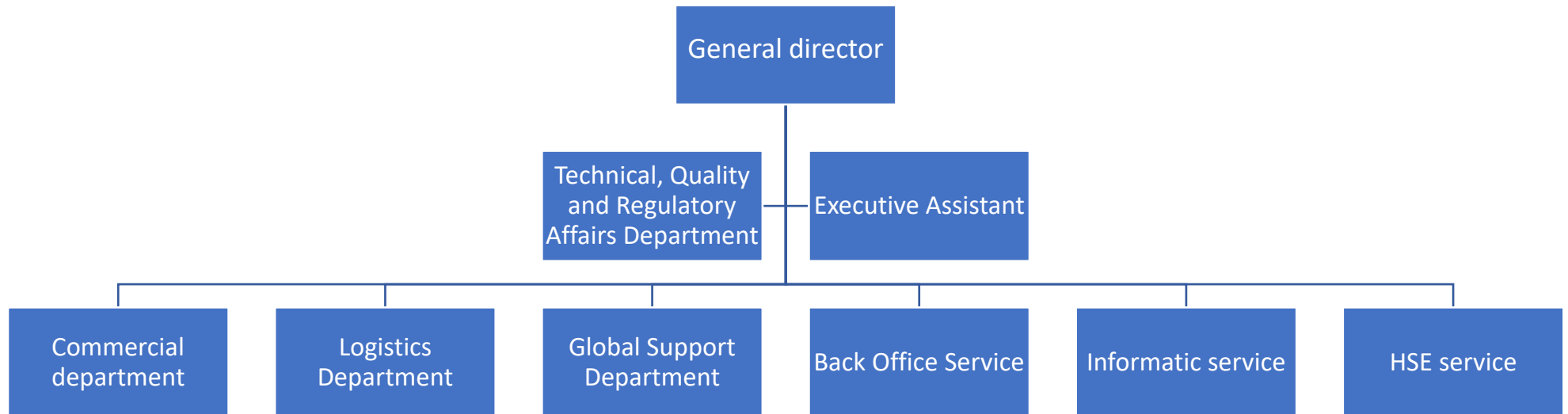
The main mission of the company is the marketing and distribution of medications in 26 provinces across the national territory.

As a profit-driven enterprise, the turnover and the increase in market share is the main objective of its creation, adding customer satisfaction which constitutes its purpose.

2.3. The organization of the DEF MED subsidiary:

DEF MED is structured according to the following organizational chart:

Figure 7: DEF MED subsidiary organization chart



Source: Internal document of the company

We carried out our end-of-cycle internship in the logistics department of DEF MED.

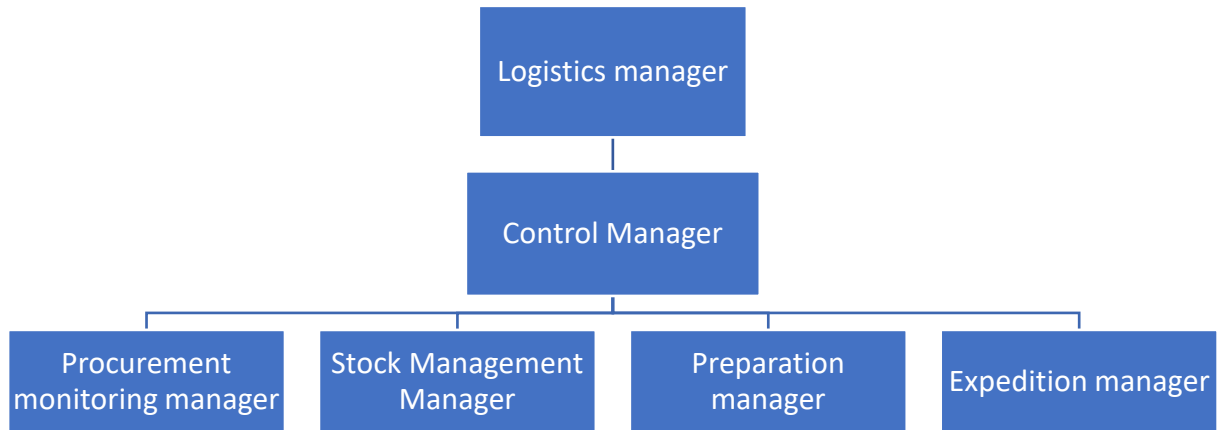
- **The Logistics Department:** Organization, orientation and coordination of operations for the management of physical flows and storage in compliance with the regulations and established procedures with the aim of improving the quality / cost / time ratio.¹

The logistics department of DEF MED consists of 140 operators, it includes the following services:

- **Procurement Monitoring Service:** Establishes a procurement plan and ensures the entry and update of information related to the management of stock entries on the information system.
- **Stock Management Service:** ensures and organizes reception, storage and rational management of products.
- **Preparation Service:** Organizes the preparation operations in accordance with the purchase orders.
- **Expedition Service:** Ensures the expedition operations and the delivery of products to customers by optimizing human and material resources, time, and costs.

¹ Internal document of the company

Figure 8: Organizational chart of the logistics department of DEF MED subsidiary



Source: elaborated by us from an internal document

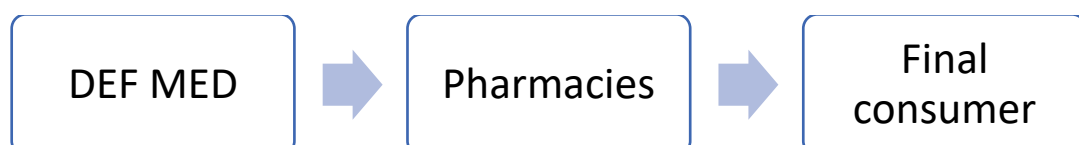
Section 2: Distribution logistics within DEF MED SPA

Each company adopts a certain distributive strategy in order to make the product accessible to consumers with the conditions that suit them best. As a distribution subsidiary, DEF MED implements an effective distribution logistics. Therefore, in this second section, we will present the functioning of the distribution logistics within DEF MED Spa and its distribution circuit.

1. DEF MED's distribution circuit:

DEF MED is considered as an intermediary between suppliers and pharmacies, and its operations are carried out through a well-defined distribution circuit (direct circuit). DEF MED sells its products directly to pharmacies, as shown in the following figure:

Figure 9:the distribution circuit of DEF MED



Source: made by us based on company data.

2. The distribution logistics process:

The distribution logistics of DEF MED Spa includes all the activities related to the management of the flow of goods, from products reception to their delivery to customers, ensuring that the products are available at the right time and in the right place at the lower cost and with shorter lead times.

The distribution logistics of the DEF MED subsidiary can be summarized in the following activities:

2.1. Reception of pharmaceutical products:

Once the order has been prepared by the supplier, the Head of Pharmaceutical Purchasing Department informs the Head of Procurement Monitoring Department so that he can include it in the supplier order collection program.

At each receipt of goods, the Receiving Supervisor is responsible for organizing the unloading of products according to the order of arrival of the vans. The unloaded products are sorted by: Supplier, Designation, Lot, DDP and PPA at the receiving area while placing the products on pallets.

Then, the Warehouseman carries out a qualitative and quantitative control of the received products in order to verify their physical conformity, the DDP and the conformity of the lot and labels according to the following sampling plan:

- Sensitive products, psychotropics and products with approaching expiry dates:
Verification of all cartons.
- Other products: Verification of 20% of cartons (2 cartons out of 10).

Note: The control of thermolabile, sensitive and psychotropic products must be given priority. These products must be immediately transferred to the appropriate areas (cold rooms, sensitive product zones, and psychotropic product zones).

Among the reception tasks, we can also mention:

- Establishment of the Physical and Theoretical Reception Voucher.
- Confrontation of the invoice and the PRV.

- Entering and updating information relating to the receipt of products (quantity, batch number, price, etc.) in the information system.
- Managing supplier disputes (shortages, breakages, damages, expired items, etc.) and the corresponding processing.

2.2. Warehousing:

After having carried out a complete control, the products received go through the storage operation and this is where the function of inventory management comes into play.

Inventory management within DEF MED SPA follows to the FEFO (First Expired, First Out) method, because pharmaceutical products are perishable products and this method allows the company to reduce the quantity of expired products in stock.

The total storage capacity of DEF MED SPA is 1850 European (EURO) type pallets.

Once the TRV has been received, the stock supervisor controls the products quantitatively. And distributes them to the appropriate storage areas (main stock, reserve stock, psychotropic products stock, cold rooms) according to their nature and need, then orders the transfer of the products using handling equipment.

Storage of products in appropriate stock locations should be in accordance with the “Pharmaceuticals Storage Rules”.

2.3. Order preparation:

The preparation of orders is done in an zone called the preparation zone divided into several sub-zones (A, B, C, D, cage or area E, etc.), each sub-area dedicated to a category of products.

Zone E: this is a location dedicated to the storage of psychotropic products, expensive and sensitive products. This zone also includes a sub-zone called "fridge", in which is installed a large refrigerator to store thermolabile products at the required temperature.

The storage system in the preparation zone is based on two types of shelving: static shelving and dynamic shelving.

- Static shelving: a set of shelves dedicated to low-rotation products.
- Dynamic shelving: a shelving system for high-rotation products.

The order preparation process goes through the following steps:

- Printing, sorting, and distribution of validated delivery notes (BL) by the sales representatives to the different preparation zones.
- Order preparation by the Picker, making necessary modifications to the P.P.A, lot number, and DDP if required.
- Control of the order prepared by a Controller, with verification of the conformity of the products prepared with the B.L (products, quantities, DDP, lot, PPA).
- Packaging of the order by the Picker, with entry of the relevant information on each package (customer name, BL number, delivery address, PF).
- Verification of the conformity of the information written on the package.

NB: Sensitive and psychotropic products are subject to double control by a 2nd Controller.

- Retrieval of packages and delivery notes (BL) from the different preparation zones and their transfer to the consolidation zone by the Warehouse Agent.
- Consolidation and sorting of orders based on BL numbers and/or delivery axes.
- Consolidation of the BLs and their transmission to the billing department.
- Establishment of the invoice by the Biller by entering relevant information into the system (picker code, number of packages, number of refrigerated packages), and noting any modifications made by the Picker.
- Final check to ensure the products picked align with the order.
- Transfer of the order and the invoice to the expedition zone by the Warehousing Agent.

2.4. The expedition:

Once the orders are transferred to the expedition zone, the expedition agent stores them in the shelves according to their delivery sectors. Priority is given to the storage of thermolabile products, they must be immediately transferred to the cold rooms.

Then, the expedition supervisor organizes the loading of the orders in accordance with the delivery schedule and loading priorities. He is also responsible for printing all the documents necessary for the shipment (the loading sheet, the waybill, the invoices for on-board orders).

Once the orders are loaded and verified, the delivery driver then starts delivering the orders to the customers according to his v and respecting the order of priority.

2.5. The delivery:

This function ensures the delivery of finished products to the consumer, for this the DEF MED subsidiary relies on a significant fleet of 50 vehicles (vans). This fleet represents one of the important segments of its investment, which enables them to guarantee fast, punctual, and daily deliveries to their customers. Thanks to these means, the subsidiary has also forged a real distribution image and a permanent presence on the market.

Section 3: Research methodology and data analysis

In this section, we will attempt to study the impact of distribution logistics on the commercial performance of DEF MED subsidiary. We will start this section by presenting the theoretical aspects related to the qualitative survey, where we will introduce the research methodology based on individual semi-structured interviews with the managers of the relevant departments. We will then present the profile of the interviewed managers. Subsequently, we will proceed with the interpretation and analysis of the obtained results, concluding with a general synthesis and recommendations.

1. Research methodology:

Every scientific work involves conducting methodological research that will shed light on the topic at hand and provide an answer to the posed problem. Our study focuses on distribution logistics in order to gain a clear understanding of its impact on commercial performance. The study will be conducted within the company DEF MED Spa.

1.1. The research objective:

The main objective of this study is to identify the impact of distribution logistics on the commercial performance of the DEF MED subsidiary.

By examining the various aspects of distribution logistics, including transport management, and warehouse management, we seek to gain valuable insights into how these factors influence the commercial performance of DEF MED Spa, with the aim of answering our research questions.

1.2. Research Approach:

To achieve the research objective and gain a comprehensive understanding of the impact of distribution logistics on the commercial performance, a qualitative research approach will be adopted.

1.2.1. Presentation of the qualitative research:

« Qualitative research involves the studied use and collection of a variety of empirical materials—case study, personal experience, introspection, life story, interview, artifacts, and cultural texts and productions, along with observational, historical, interactional, and visual texts—that describe routine and problematic moments and meanings in individuals' lives. Accordingly, qualitative researchers deploy a wide range of interconnected interpretive practices, hoping always to get a better understanding of the subject matter at hand. »¹

Qualitative research is a research approach that aims to understand and interpret complex phenomena, experiences, and social contexts through the collection and analysis of non-numerical data. It focuses on exploring subjective meanings, perspectives, and behaviours of individuals or groups.

Our research focuses on assessing the impact of distribution logistics on commercial performance. To acquire reliable and high-quality information, we aim to closely engage with managers, which inevitably leads to a smaller sample size. Given this context, opting for a qualitative research approach is the most appropriate choice for our research.

In qualitative research, data collection involves employing various methods such as interviews, focus groups, observations, document analysis, and field notes. These methods allow researchers to gather rich and detailed information from participants, enabling a comprehensive exploration and enhanced understanding of the research topic.

1.3. Data collection method:

The suitable data collection method for this research is semi-structured interviews. This approach allows for an in-depth exploration of the impact of distribution logistics on the commercial performance by engaging with managers and obtaining detailed, contextualized information. Through semi-structured interviews, managers are given the opportunity to share their opinions, experiences, and perspectives, providing valuable data that can be analysed and interpreted to achieve a comprehensive understanding of the research subject.

1.3.1. Interviews:

There are numerous definitions of the interview, and the following two definitions are quoted:

¹ DENZIN (Norman K.) and LINCOLN (Yvonna S.): *the sage handbook of qualitative research*, SAGE Publications, Thousand Oaks; 5th edition, 2018, p.43.

« The interview is a form of social interaction. It involves a face-to-face encounter between two—and sometimes more—persons, each of whom is sizing up the other and constructing the meanings of the other's words, expressions, and gestures. »¹

« An interview is neither a friendly conversation, a discussion, an interrogation, a press interview, nor an acknowledgement. An interview is a method of data collection and is part of a pre-prepared process embedded in a research plan. »²

There are various types of interviews commonly used in research and data collection, including: « the standardized (formal or highly structured) interview, the unstandardized (informal or non-directive) interview, and the semi-standardized (guided semi-structured or focused) interview. The major difference among these different interview structures is their degree of rigidity with regard to presentational structure. »³

1.3.2. Semi-Structured Interviews:

A semi-structured interview is a qualitative research method that combines elements of structured and unstructured interviews.

« This type of interview involves the implementation of a number of predetermined questions and special topics. These questions are typically asked of each interviewee in a systematic and consistent order, but the interviewers are allowed freedom to digress; that is, the interviewers are permitted (in fact, expected) to probe far beyond the answers to their prepared standardized questions. »⁴

A semi-structured interview typically involves the use of a guide or a set of predetermined questions, focusing on the main topic while allowing for some flexibility.

1.3.3. The interview guide:

¹ TAYLOR, (Steven J.), BOGDAN, (Robert), and DeVault, (Marjorie L.): *Introduction to Qualitative Research Methods*, Wiley, Hoboken; 4th edition, 2016, p.114.

² KHEIRI, (Nouh): « *Interview in Scientific Research: From Epistemology Construction to Applied Procedures* », Review of Human Sciences, N°22, 2022, p 1205-1220.

³ LUNE, (Howard), and BERG, (Bruce L.): *Qualitative Research Methods for the Social Sciences*, Pearson; 9th edition, 2017, p.67.

⁴ Ibid, p.69.

We initially developed an interview guide (see Appendix 1), carefully selecting questions that address all aspects of this thesis. This guide allows us to confirm or refute our research hypothesis.

The interview guide is defined as « *a script, which structures the course of the interview more or less tightly. The guide may merely contain some topics to be covered, or it can be a detailed sequence of carefully worded questions. For the semi-structured type of interview discussed here, the guide will include an outline of topics to be covered, with suggested questions.* »¹

2. Presentation of the interviewees:

We have selected five managers directly involved in logistics and commercial service to obtain concrete and relevant information that effectively addresses our research objective.

Table 1:Profile of the interviewees

Position of the interviewees	Managers' names	Date and duration of the interview
Logistics Manager	Melki (T.E)	25/05/2023 Duration : 49 minutes
Stock Management Manager	Bourroga (H.E)	25/05/2023 Duration : 1H 45 minutes
Delivery Supervisor	Abdelhadi (Y.M)	29/05/2023 Duration : 55 minutes
Commercial service Manager	Boudoumi (N)	04/06/2023 Duration : 25 minutes

Source: Elaborated by us from interview data.

3. Treatment and analysis of the results of the qualitative study (through semi-structured interviews):

3.1. The distribution logistics of the DEF MED subsidiary:

Question 01: What is your estimate of the percentage of costs related to distribution logistics activities compared to the company's overall costs?

¹ KVALE, (Steinar), and BRINKMANN, (Svend): *InterViews: Learning the craft of qualitative research interviewing*, SAGE Publications, Los Angeles; 2nd edition, 2009, p.130.

Logistics Manager: « *If we count all the costs of distribution logistics activities, costs are estimated to be between 70% and 75% of the company's overall costs. »*

Analysis: We notice that distribution logistics costs occupy the major part of the company's overall costs. DEF MED has understood the importance of distribution logistics activities, which is why all means are used to ensure timely delivery of products to customers with the expected quality.

Question 02: Do distribution logistics activities contribute to the company's revenue growth?

Logistics Manager: « *Distribution logistics activities contribute to the improvement of the revenue by offering quality services through prompt deliveries, good inventory management ensuring availability, and timely resolution of complaints. Indeed, it is the responsiveness of logistics to the sales team's requirements that ensures better commercial performance and consequently enhances the revenue. »*

Analysis: Effective management of distribution logistics activities enables the company to better distribute and market its products, leading to a positive impact on the evolution of turnover.

Question 03: Which information systems do you use to enhance the management of distribution logistics?

Logistics Manager: « *DEF MED utilizes an ERP, specifically AX Dynamics 2012, it generates reports that facilitate our activity compared to our previous system. »*

Analysis: DEF MED has decided to invest in AX Dynamics, which provides comprehensive, safer and faster information to improve its process. In fact, thanks to the centralization of information within a single database, coordination between activities is increased.

Question 04: What are the obstacles that hinder the optimal functioning of DEF MED's distribution logistics?

Logistics Manager: « *The optimal functioning of the company's distribution logistics is hindered by:*

- *The lack of means which hinders the achievement of the objectives set.*
- *The lack of competent human resources.*

- *Outdated procedures that haven't been updated since 2017 and non-compliance with procedures.*
- *Lack of information on arrivals or deliveries, for example.*
- *Lack of communication with operational service. »*

Analysis: Despite being one of the market leaders, the company encounters obstacles, some of which are within its control while others are beyond its power. However, the company must consider implementing serious and achievable measures to reduce these obstacles as they have a direct impact on its performance.

3.2. Warehouse management within the company:

Question 01: How do you manage the warehouse to ensure effective coordination of warehousing activities?

Stock Management Manager: *« We have four main activities: receipt of goods according to the priority order of products, warehousing following the code of good distribution practices (how to store the product, organization of products on pallets, safety rules), intra-store product transfers, and annual inventory. These activities are referred to as functional activities. There are several ways in which we can ensure coordination between these activities, among them are: In my opinion, personnel training is the essential parameter. It is also vital to have KPI reports to measure and track warehouse performance and its activities, in order to detect any problems, their source, and promptly find solutions. Additionally, effective communication between teams is crucial. »*

Analysis: DEF MED Spa ensures good coordination between warehousing processes, and between the main warehouse areas by strengthening the capabilities of the operational team and more reactive communication of KPI reports.

Question 02: What is the impact of warehouse management on customer order preparation?

Stock Management Manager: *« The order preparation service cannot function properly without the warehouse management service. Here are some examples of issues that can hinder the preparation process:*

- *Delay in products destocking.*
- *Significant gap between theoretical and physical product quantities in the preparation stock.*

- *Unsuccessful warehousing leading to a disruption in the preparation service.*

Any form of disorganization or delay in the management of warehouse activities directly impacts the order preparation service. »

Analysis: If warehouse activities are well optimized and organized, the preparation process can be completed within a very short time frame.

Question 03: Does your warehouse management strategy have a positive impact on meeting delivery times?

Stock Management Manager: *« Yes, as mentioned earlier, effective warehouse management ensures that customer orders are prepared quickly, thereby ensuring that delivery times are respected. »*

Analysis: Effective warehouse management directly impacts the delivery time. Each act complements the other, meaning that the good mastery of all warehousing operations will have a positive impact on meeting delivery deadlines. As a result, the company can gain a competitive advantage.

Question 04: What problems do you encounter in warehouse management?

Stock Management Manager: *« There are many problems, including organizational, direct, indirect, and interpersonal issues, among which we can mention: communication (sharing unverified information, non-factual communication, misunderstandings...), lack of personnel, the non-adaptability of staff to the new information system (AX Dynamics), lack of resources, and the non-adaptation of the warehouse structure, which does not allow for proper pallet storage and leaves no space between the pallet and the wall (risk of pallet fall), thus posing ventilation issues. »*

Analysis: The warehouse is no longer just a place to store goods haphazardly; it has become an essential element in ensuring customer satisfaction. It is the starting point for meeting consumer expectations or, if mismanaged, can become a bottleneck leading to complaints and returns. Therefore, the company must find solutions to address the issues occurring in the warehouse to maintain its reputation and customer satisfaction.

Question 05: Do you encounter stockouts?

Stock Management Manager: *« Yes, often due to products unavailability from suppliers or forecasting errors by purchasing planners. »*

Analysis: The company should implement safety stocks to ensure the ability to fulfil unforeseen orders at any time and prevent the loss of customers, this can be achieved by proactively increasing inventory levels based on demand forecasts.

Question 06: Do you encounter situations of overstocking?

Stock Management Manager: *« Yes, this happens frequently. Sometimes, we may not take storage space into consideration because we have objectives that we must achieve with laboratories, so we make purchases even if we already have excess stock. This is often due to exceptional discounts offered for specific quantities, which are usually large quantities. However, sometimes inaccurate forecasts can lead to overstocking. »*

Analysis: The company must aim for a better coordination between objectives, storage capacity, and demand forecasting to optimize inventory management and avoid overstocking. It should also carefully evaluate the impact of discounts on inventory levels and overall costs, aiming for a balance between taking advantage of discounts and avoiding overstocking.

3.3. Transport management within DEF MED Spa:

Question 01: How does the transport function impact the commercial performance of the company?

Delivery supervisor: *« The transport function impacts the commercial performance of the company in several ways:*

- *The transport function serves as the direct interface with customers. The drivers' professionalism, efficiency, and friendly interactions contribute to positive customer experiences, leading to increased satisfaction and potential referrals. Prioritizing excellent customer service through transportation enhances commercial performance and fosters customer loyalty.*
- *Timely and proper deliveries ensure customer satisfaction. When the company consistently provides excellent service, it leads to customer loyalty and an increase in sales.*
- *The company's competitive advantage lies in its ability to deliver orders quickly. Whether it's same-day delivery for nearby areas or next-day delivery for distant*

locations, meeting customer expectations for delivery time gives the company a competitive advantage. »

Analysis: It is crucial for the company to continually optimize its transport operations, invest in driver training and professionalism, and maintain a strong focus on meeting customer expectations. By doing so, the company can drive its commercial success and maintain a strong position in the market.

Question 02: What is your estimate of the percentage of transport costs compared to the company's overall costs?

Delivery supervisor: *« The transport cost represents approximately 21% of the company's overall costs. This percentage is high due to the company's extensive delivery coverage along the western coast of Algeria, Bechar and Adrar, as well as some central provinces. The company relies on its own resources The company relies on its own resources and an internal fleet of over 50 vans and over 51 drivers to accomplish these deliveries. »*

Analysis: Considering that transport costs represent a significant portion of the company's overall costs, it is crucial to closely monitor and implement effective measures to optimize them. Taking proactive steps to reduce these costs and optimize the company's transport operations is essential for improving cost efficiency.

Question 03: What are the problems encountered during the delivery of products to customers?

Delivery supervisor: *« We encounter various problems, such as:*

- Human-related problems: We have a limited number of drivers, and in case of unforeseen circumstances, we face a shortage of experienced drivers in specific areas. The lack of driver versatility also poses a significant problem.*
- Equipment problems: Van breakdowns, a low-quality fleet, and a delayed maintenance service.*
- We also face external problems, such as adverse weather conditions, road closures, and protests, which often result in route changes and delivery delays. »*

Analysis: DEF MED Spa encounters various challenges on a regular basis that require attention. While some problems may not be entirely predictable or controllable, the company

should take proactive measures to minimize their impact and ensure customer satisfaction in terms of quality and timely delivery.

Question 04: What tools do you use to manage the transport function?

Delivery supervisor: *« To manage the transport function, we currently do not have dedicated software systems. Instead, we only utilize dashboards to gather information after delivery actions. This data is then used to build a database that enables us to calculate the profitability of each sector, among other metrics. However, the implementation of AX DYNAMICS has significantly simplified certain tasks. For instance, it facilitates the printing of clear and visible route sheets and invoices, as well as facilitating the classification of orders after delivery (delivered, not delivered due to, postponed). »*

Analysis: The ability to manage, lead, or organize transportation activities within the company can be complex, and to ensure performance, it is better to have control over all aspects. It would be more beneficial for the subsidiary to rely on transportation management system for better planning of needs and optimized flow control.

Question 05: According to you, how can your company improve the performance of the transport function?

Delivery supervisor: *« To improve the performance of the transport function, the company could consider:*

- Implementing a new Transportation Management System (TMS).*
- Ensuring thermal insulation of vans to maintain product quality.*
- Installing GPS tracking systems for better delivery monitoring.*
- Providing driver training to enhance skills and adherence to protocols.*
- Ensuring an adequate number of drivers.*
- Maintaining a well-maintained fleet through regular maintenance and repairs. »*

Analysis: To enhance the performance of the transport function, the company should focus on implementing effective measures such as utilizing advanced technology, investing in driver training, ensuring proper maintenance of vehicles, and prioritizing customer satisfaction. By addressing these areas, the company can optimize its transport operations, improve service quality, and deliver products in a timely manner, ultimately enhancing its overall performance and customer experience.

3.4. The commercial performance within the DEF MED subsidiary:

Question 01: Does the distribution logistics practiced by the DEF MED subsidiary impact its commercial performance?

Commercial service manager: « *Distribution logistics greatly contributes to increasing the subsidiary's revenue by providing better services to customers and offering them quality product ranges.* »

Analysis: The assurance of product availability within the allotted timeframes and providing quantities in good condition stem from effective process management.

Question 02: Do you perceive an increase in your revenue compared to previous years?

Commercial service manager: « *Yes, our revenue is continuously increasing, and it varies from year to year. For example, we experienced an 8% growth in revenue compared to 2022.* »

Analysis: It can be concluded that the company has experienced a notable increase in revenue compared to the previous year. This indicates positive growth and improved commercial performance.

Question 03: With what periodic frequency is the commercial performance measured?

Commercial service manager: « *The company's commercial performance is measured quarterly.* »

Analysis: The company regularly evaluates its commercial performance on a quarterly basis. This systematic approach allows for effective monitoring and assessment of its sales and revenue growth. By reviewing performance metrics at regular intervals, the company can make informed decisions and take necessary actions to drive continuous improvement and achieve its business objectives.

Question 04: What are the performance indicators that your subsidiary uses to measure its commercial performance?

Commercial service manager: « *The subsidiary uses several performance indicators to measure its commercial performance such as: achieving sales targets for strategic product ranges, collaborating with strategic laboratories, and meeting customer-specific revenue goals. We also focus on the expiration dates (DDP) indicator to support logistics in handling*

perishable products. Recently, we have added a new indicator called "PARA" to our range of KPIs. In addition to quantitative metrics, we also consider qualitative indicators. These include tracking employee absences, monitoring adherence to established procedures, ensuring timely validation of orders by the sales team, and addressing customer complaints promptly and effectively. »

Analysis: The subsidiary employs a range of performance indicators to assess its commercial performance. These include quantitative and qualitative metrics. By closely monitoring these indicators, the subsidiary aims to enhance its commercial performance, improve customer satisfaction, and drive business growth.

Question 05: In general, how would you assess the commercial performance of your company?

Commercial service manager: *« The commercial performance of the company is considered positive. »*

Analysis: All means are being implemented to constantly improve commercial performance indicators and prevent any issues that could have a negative impact. The results are evident, and the performance is positive.

4. Synthesis:

According to the results of interviews with DEF MED Spa managers as well as observations made in the field and our research, we can summarize the results as follows:

- The distribution logistics within DEF MED is a key lever for optimization to increase sales and gain significant market share, establish direct relationships with customers, and minimize delivery disputes.
- Effective management of distribution logistics through human expertise and material capabilities has a positive impact on the company's commercial performance.
- DEF MED's distribution logistics is cost-focused.
- The implementation of AX Dynamics ensures better coordination between departments, optimal management, and facilitates internal and external operations of the company.

- One of the obstacles hindering distribution logistics within DEF MED is the lack of a developed information system such as a Transportation Management System (TMS) that can optimize distribution and transportation costs.
- There is a need to acquire a more efficient and well-equipped transport fleet.
- Lack of communication and information sharing among different departments is a challenge.
- DEF MED Spa evaluates its commercial performance using specific quantitative and qualitative indicators.
- Customers prefer DEF MED Spa due to superior quality, fast delivery, and the company's emphasis on maintaining a good relationship with them despite high demand.
- Distribution logistics positively influences commercial performance by improving both quantitative and qualitative indicators through product availability and adherence to delivery deadlines.

5. Recommendations and Suggestions:

To improve the current distribution logistics of the company and enhance commercial performance, we propose the following practical and useful suggestions for DEF MED Spa:

- Increase investment in resources to overcome the lack of means and ensure the objectives are achieved.
- Focus on hiring and retaining competent human resources to strengthen the distribution logistics team.
- Update procedures to align with industry best practices and ensure compliance.
- Improve communication channels between teams to enhance coordination and address any misunderstandings or miscommunications.
- Provide regular training programs for warehouse personnel to improve their skills and adherence to good distribution practices.
- Conduct regular stock counts and reconciliation to minimize the gap between theoretical and physical product quantities.
- Evaluate and optimize the warehouse structure to ensure proper pallet storage, ventilation, and safety.
- Consider using technology, such as barcode scanning or RFID systems, to improve accuracy and efficiency in order fulfilment.

- Implement demand forecasting models to minimize overstocking and optimize inventory levels.
- Consider implementing a dedicated Transportation Management System (TMS) to optimize transport planning, route optimization, and tracking.
- Ensure regular maintenance and timely repairs of the transport fleet to minimize breakdowns and delays.
- Increase the number of drivers to overcome shortages and provide versatility for unforeseen circumstances.
- Enhance the quality of the transport fleet to improve reliability and customer service.
- Implement GPS tracking systems for real-time monitoring of deliveries and to proactively address any route changes or delays.
- Continuously monitor and analyse distribution logistics performance indicators to identify areas for improvement and take proactive measures.

Chapter conclusion:

Based on the study we conducted and the results obtained, we can conclude that the distribution logistics of DEF MED Spa has a positive impact on the company's commercial performance.

Our qualitative research has brought us closer to the reality of the subsidiary's distribution logistics process, allowing us to understand the essential role of optimizing transportation, warehousing functions in improving the company's commercial performance. The subsidiary has managed to maintain its corporate image thanks to its mastery of distribution logistics.

Through this chapter, we have been able to synthesize the findings and make suggestions for improving the company's commercial performance.

Following the analysis of the results, we can address our initial problem and confirm or refute our hypotheses.

GENERAL CONCLUSION

Distribution logistics is a process designed to make exchanges operational. It involves a triple flow: physical, financial, and informational, organized in a chain of activities aimed at managing time and space during downstream product movements. In a constantly evolving and increasingly demanding market, the effective management of distribution logistics activities remains a challenge for any company to ensure positive commercial performance.

Throughout this work, we have attempted to study and analyze the impact that optimal and efficient management of distribution logistics can have on improving the commercial performance of DEF MED Spa. Through literature research and the collection of relevant information, we were able to address our research questions. As a result, we were able to confirm all of our hypotheses, which are as follows:

- **H01: DEF MED Spa has the necessary capabilities to manage its transportation function effectively.**

DEF MED Spa has the necessary capabilities to effectively manage its transportation function. By using its own fleet, there is a guarantee of availability of resources at all times. Even in the absence of a Transportation Management System (TMS), the transportation manager is able to control costs and routes through their experience and the use of tools.

- **H02: Effective warehouse management enhances the responsiveness of DEF MED Spa's distribution logistics processes.**

DEF MED Spa ensures the control of warehouse processes through the implementation of strict procedures and instructions. This enables them to provide fast delivery times and the expected level of quality.

- **H03: The commercial performance of DEF MED Spa is measured by quantitative and qualitative indicators that generally present favourable results.**

The successive increase in annual turnover reflects a positive commercial performance, along with the significant market share that DEF MED has been able to gain. DEF MED has managed to establish a strong presence in the Algerian market and has created a genuine commitment to its customers, leading to their satisfaction and loyalty.

To expand market share and improve commercial performance, we recommend DEF MED Spa to focus on customer-centric strategies. This includes implementing a Transportation Management System (TMS) to streamline transport flow management and

introducing a barcode system for efficient inventory management. Additionally, expanding the workforce and optimizing task division can enhance responsiveness.

Finally, we would like to mention the difficulties we encountered during our research. In the theoretical framework, we faced challenges in obtaining up-to-date information regarding changes in distribution logistics management systems.

In the practical aspect, we encountered issues related to confidentiality, unavailability of certain responsible individuals, and employee reluctance. The limited time allocated to our research also impacted our ability to gather information related to the research topic. However, despite these challenges, this experience has been professionally enriching, in terms of theoretical knowledge gained, and in terms of human interactions.

In conclusion, due to the broad nature of the topic, we acknowledge that we may not have been able to cover all aspects of our research question despite our best efforts. Therefore, we encourage future researchers to delve deeper into the field of downstream logistics, using more relevant data and selecting more established companies for their studies.

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- DEF MED Spa internal documents.

APPENDICES

Appendix 01: Interview guideline

Madam/Sir,

With the aim of elaborating my end-of-cycle thesis in order to obtain a master's degree in commercial sciences at the School of Higher Commercial Studies (EHEC ex INC), option: Distribution and Supply Chain Management, of which the theme is: The impact of distribution logistics on the commercial performance, I am currently conducting a study at DEF MED Spa.

As part of this study, I have elaborated this interview guide that will enable me to obtain the necessary information for my research work. I would therefore request your valuable cooperation and kindly ask you to respond to the questions listed below.

I assure you that all information collected during this interview will be treated confidentially and used solely for research purposes.

I would like to thank you for your valuable contribution to this research and for granting me your time.

The questions:

➤ Presentation of the interviewee:

Question 01: What position do you hold within DEF MED SPA?

.....
.....

Question 02: How long have you been in this position?

.....
.....

Question 03: What are your responsibilities within the company?

.....
.....

1. The distribution logistics of the DEF MED subsidiary:

Question 01: What is your estimate of the percentage of costs related to distribution logistics activities compared to the company's overall costs?

.....
.....

Question 02: Do distribution logistics activities contribute to the company's revenue growth?

.....
.....

Question 03: Which information systems do you use to enhance the management of distribution logistics?

.....
.....

Question 04: What are the obstacles that hinder the optimal functioning of DEF MED's distribution logistics?

.....
.....

2. Warehouse management within the company:

Question 01: How do you manage the warehouse to ensure effective coordination of warehousing activities?

.....
.....

Question 02: What is the impact of warehouse management on customer order preparation?

.....
.....

Question 03: Does your warehouse management strategy have a positive impact on meeting delivery times?

.....
.....

Question 04: What problems do you encounter in warehouse management?

.....

.....

Question 05: Do you encounter stockouts?

.....

.....

Question 06: Do you encounter situations of overstocking?

.....

.....

3. Transport management within DEF MED Spa:

Question 01: How does the transport function impact the commercial performance of the company?

.....

.....

Question 02: What is your estimate of the percentage of transport costs compared to the company's overall costs?

.....

.....

Question 03: What are the problems encountered during the delivery of products to customers?

.....

.....

Question 04: What tools do you use to manage the transport function?

.....

.....

Question 05: According to you, how can your company improve the performance of the transport function?

.....
.....

4. The commercial performance within the DEF MED subsidiary:

Question 01: Does the distribution logistics practiced by the DEF MED subsidiary impact its commercial performance?

.....
.....

Question 02: Do you perceive an increase in your revenue compared to previous years?

.....
.....

Question 03: With what periodic frequency is the commercial performance measured?

.....
.....

Question 04: What are the performance indicators that your subsidiary uses to measure its commercial performance?

.....
.....

Question 05: In general, how would you assess the commercial performance of your company?

.....
.....

Appendix 02: Road map



SPA DEF MED
SPA Capital de 110 000 000 DA
OUED EL RIHANE SECTION 01 Ilot de Propriété 51 –KHEMIS
MELIANA 44 DZA
IF: 000644076404852 AI: 44045410190 RC: 44/00-0764048 B 06
TEL: 027 55 04 16

10/05/2023 12:12

Feuille de route									
ORIGINE EXPÉDITION					Numéro de feuille de route:				
Nom: Adresse:									
DESTINATION EXPÉDITION					Nom du transporteur:				
Date feuille: Secteur:					N° véhicule:				
					Nom du véhicule:				
Instructions particulières :									
N°	Psy	N°GHPC	N° commande client	Nom client	N° facture	Colis	Frigo	Total	Observation
Total colisage								0	
Total des factures						0,00 DA			
Le chauffeur,				Le pointeur,			Le chef dépôt,		

Appendix 02: Invoice

SPA DEF MED

- Capital social 110 000 000 DA

04/05/2023 13:41

Etablissement pharmaceutique de distribution en gros de produits pharmaceutiques et dispositifs médicaux

DIRECTION: OUED EL RIHANE SECTION 01 Ilot de Propriété 51 - KHEMIS MELIANA, AIN DEFLA, Algérie

NIF: 000644076404852 AI: 44045410190 RC: 44/00-0764048 B 06 NIS: 000644040564056

TEL: 027 55 04 16



Facture N° FC23-076134

/A

2 COLIS

B_CMDE N°: 115349 Du

04/05/2023

(A/B/C)

Date facture: 0

R.C-CLIENT: 13

NIF CLIENT: 18

NIS CLIENT: 19

NA CLIENT: 263

Secteur: 13-BO

Client
add
Tel/Fax Mail:

ORD	REF.	DESIGNATION	LOT	PERRMP	QTE	PU HT	PT HT	MRG	PPA HT	PPA TTC	SHP	TVA
1	00001528	LEVOPHTA 0.05% COLLYRE F/SML DCI: LEVOCABASTINE	H9071	01/09/2024	10	351,47	3 514,70	20%	421,76	421,76	0,00	0%
2	00007057	OBRAX 0.3% COLLYRE F/SML DCI: TOBRAMYCINE	40032309	01/02/2025	15	165,90	2 488,50	20%	199,08	199,08	2,50	0%
3	00006479	BANDELETTE VITAL CHECK B/50	BXB2651	01/02/2025	10	1 250,00	12 500,00	20%	1 500,00	1 500,00	0,00	0%
4	00002275	RIABAL 30 CP.B/20 DCI: PRIFINIUM BROMURE	257146	01/09/2027	20	167,92	3 358,40	20%	201,50	201,50	1,50	0%
						TOTAL	21 861,60					

Totaux pharm		Détail TVA		Totaux Facture	
PPA:	26 233,80	TVA 09%:	0,00	TOTAL HT BRUT:	21 861,60
MARGE:	4 372,32			REMISE:	0,00
SHP:	67,50	TVA 19%:	0,00	TOTAL HT REMISÉ:	21 861,60
				TVA :	0,00
				TTC:	21 861,60

ARRÊTÉE LA PRÉSENTE FACTURE À LA SOMME DE VINGT ET UN MILLE HUIT CENT SOIXANTE ET UN DINARS ALGÉRIENS ET SOIXANTE CENTIMES

REGLEMENT: Par Traite, 105 jours (Au plus tard le 17/08/23: A défaut, le fournisseur s'autorise à réclamer de plein droit des astreintes journalières)

Extrait Conditions Générales de Vente

- Le Client est tenu de vérifier sa commande au moment de la livraison et d'accuser réception sur la facture.
- Toute réclamation sur les produits se fera dans un délai maximum de trois (03) jours à partir de la date de leur réception
- Les produits ayant des propriétés psychotropes et thermolabiles doivent faire l'objet d'un contrôle à la réception, aucun retour ni échange de ces derniers ne sera accepté.
- Le Client est tenu de collaborer pour la réalisation de tout éventuel rappel de lots. Il doit cesser toute vente de lots concernés dès notification d'un rappel et respecter les délais de rappel qui lui sont communiqués.
- Le Client devra transmettre toute information de pharmacovigilance, relative aux produits facturés, à son fournisseur, dans un délai n'excédant pas 24h.
- Tout produit ayant des propriétés psychotropes sera livré au client, expressément, selon les dispositions du décret exécutif N°21-196 du 24 Ramadhan 1442 correspondant au 11 Mai 2021 modifiant et complétant le décret exécutif n° 19-379 du 31 décembre 2019.
- Tout paiement effectué par le client servira à régler sa dette par ordre d'antériorité.

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