

Ecole des Hautes Etudes Commerciales

d'Alger

EHEC

**Dissertation Submitted in Partial Fulfillment of the Requirements
for Master's Degree in Commercial Studies**

Major: Distribution & Supply Chain Management

**THE IMPACT OF SUPPLY CHAIN MANAGEMENT ON
CUSTOMER SATISFACTION
CASE STUDY: CLOZER TECH & CONSULTING**

Submitted by:

Ms. Lina MAACHE

Supervised by:

Dr. Naima MESSAOUDI

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6thPromotion

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Dedication

To my beloved parents, brothers and Mani.

Lina.

Acknowledgement

First and foremost, I would like to express my sincere gratitude by saying

“AL HAMDULI ALLAH”

to the Almighty God for His guidance during this program.

I have the pleasure to thank every single person who helped me in the realization of this humble work.

I am especially thankful to my family, my parents and brothers who had encouraged me during my whole life to always give the best of me and go further.

Papa, Mama, Badis and Islam; Thank you!

I would also thank a very special person to my heart, the person who rocked my childhood, who have never stopped giving advice and Dua'a and pushed me to become the person I am today. A person who left us few months before this moment; thank you *Mani* for all of your love and sacrifices may Allah have mercy on you and place your soul among those believers.

My appreciation also goes to my supervisor, Doctor MESSAOUDI for her support and supervision during my research. Her guidance helped me develop a deeper understanding of my research subject and enabled me to complete this thesis as required.

I owe special gratitude to Mr. BENTAIBA Abderrahmane, the CEO and founder of Clozer Tech & Consulting who had always been there for me.

Finally, I would like to thank my friends Besma, Dounya, Ihssen and Soumia without forgetting my dear cousin and sister Hounaida.

Lina MAACHE

Abstract

The exponential growth that the digital world is witnessing is not deniable, it touches all the activity sectors and business is one of them.

It is clear that many changes will accompany this phenomenon; the demand is not the same, nor the offer.

Technologies development had pushed traditional practices to move forward and follow the flow and this is the case of commerce and logistics.

E-commerce right now is not like it used to be. Customers are more and more familiar with it and this requires a management system suitable for it, new methods and approaches to enhance the customers' satisfaction.

Today's customers are not like yesterday's, they are expecting more and waiting for a better experience within their online purchase journey. Many offers are crossing their paths; they do have a large choice and can easily switch sides.

Thus, the necessity of delivering the best experience to the customers and increases their satisfaction is in the core of e-business holders' strategies.

This humble work consists of a study that aims to come up with useful outputs in order to clarify and depict the way supply chain management satisfies the current and potential customer within the new e-commerce website that Clozer Tech & Consulting are working in. In other words, to identify the impact that supply chain management has on customer satisfaction, case of a selling website.

Key words: Electronic commerce, Digital, Supply chain management, customer satisfaction, selling website, Clozer Tech & Consulting

Résumé

La croissance exponentielle à laquelle le monde numérique assiste n'est pas négligeable, elle touche tous les secteurs d'activité et les entreprises en font partie.

Il est clair que de nombreux changements accompagneront ce phénomène ; l'offre et la demande ne sont plus les mêmes.

Le développement des technologies a poussé les pratiques traditionnelles à aller de l'avant et à suivre le courant, et c'est le cas du commerce et de la logistique.

Le commerce électronique n'est plus comme il l'était auparavant. Les clients se sont vite familiarisés, cela donc nécessite un système de gestion adapté, de nouvelles méthodes et approches pour améliorer leur satisfaction.

Les clients d'aujourd'hui ne sont pas ceux d'hier ; ils s'attendent à plus et prévoient une meilleure expérience client, celle de l'e-consommateur.

Le client est face à plusieurs alternatives, un large choix s'offre à lui, il pourra donc facilement changer de camp.

C'est pour cela que la nécessité de fournir la meilleure expérience possible aux clients et d'augmenter leur satisfaction est au cœur des stratégies des chefs d'entreprises du e-commerce d'aujourd'hui.

Cet humble travail consiste à réaliser une étude visant à clarifier et décrire l'impact que la chaîne logistique a sur la satisfaction client en se basant sur le lancement du nouveau site de commerce électronique sur lequel Clozer Tech & Consulting travaille.

Mots clés : commerce électronique, numérique, gestion de la chaîne logistique, satisfaction client, site e-commerce, Clozer Tech & Consulting

ملخص

إن النمو الهائل الذي يشهده العالم الرقمي ليس ضئيلاً ، فهو يؤثر على جميع القطاعات ويمس جل أن العديد من التغيرات سترافق هذه الظاهرة حتى أنّ العرض والطلب الشركات ،ومن الواضح مختلفان عمّا كانا عليه سابقاً

لقد ساهم تطور التكنولوجيا في تطوير الممارسات التقليدية وتشجيعها على المضي قدماً و اتباع التيار ، كما هو الحال مع التجارة والامدادات

التجارة الالكترونية ليست كما كانت عليه من قبل؛ والعديد من الزبائن تألفوا معها. هذا يتطلب إذاً نظاماً مناسباً و طرقاً و أساليب جديدة من أجل تحسين رضاهم

زبائن اليوم ليسوا كزبائن الأمس ؛ إنهم يتوقعون المزيد و ينتظرون تجربة أفضل، تجربة المستهلك الإلكتروني

العديد من الخيارات تعرض على زبون اليوم، لديه خيار واسع وبإمكانه تغيير الطرف بسهولة. لذا، ضرورة تقديم أفضل تجربة ممكنة للزبون في قلب استراتيجيات رؤساء الأعمال اليوم الناشطين في مجال التجارة الالكترونية

يطمح هذا العمل المتواضع إلى إجراء دراسة توضيحية ووصفية لتأثير سلسلة الإمدادات على رضا الزبائن استناداً على إطلاق موقع بيع على الأنترنت لشركة كلوزر تاك اند كونسولتينغ

الكلمات المفتاحية: التجارة الإلكترونية ، إدارة سلسلة التوريد ، رضا العملاء ، موقع التجارة الإلكترونية

List of figures

Chapter I:

Figure I.1: A generalized Supply Chain Management Model	7
Figure I.2: Flows and SCM	8
Figure I.3: SCM and logistics	9
Figure I.4: Outsourced logistics process: an example	26

Chapter II:

Figure II.1: The effects of customer satisfaction with the e-commerce system	33
Figure II.2: Homepage structure	45

Chapter III:

Figure III.1: Organizational chart of Clozer Tech & Consulting	59
Figure III.2: Distribution of the population according to their gender	67
Figure III.3: Distribution of the population according to their age	67
Figure III.4: Distribution of the population according to their educational level	68
Figure III.5: Distribution of the population according to their employment	68
Figure III.6: Distribution of the population according to their job nature	69
Figure III.7: Distribution of the population according to their unemployment status	70
Figure III.8: Distribution of the population according to their occupational category	70
Figure III.9: Distribution of the population according to their online purchase history	71
Figure III.10: Distribution of the population according to their online purchase type	72
Figure III.11: Distribution of the population according to their willingness to place a new Order	72
Figure III.12: Distribution of the population according to their willingness to track the order	73
Figure III.13: Distribution of the population according to their aim to cancel in case of delivery delay.....	74
Figure III.14: Distribution of the population according to their ability to drop-off the items	74
Figure III.15: Distribution of the population according to their behavior in case of reverse logistics.....	75

FigureIII.16: Distribution of the population according to their agreement with the OOS and the customer satisfaction.....	76
FigureIII.17: Distribution of the population according to their agreement with the tracking of the shipment process and the customer satisfaction	77
FigureIII.18: Distribution of the population according to their feeling towards an on time delivery	77
FigureIII.19: Distribution of the population according to their satisfaction from a clear and easy return process.....	78

List of tables

Chapter I:

Table I.1: SCM development stages.....11

Table I.2: The historical development of e-logistics systems.....22

Chapter III:

Table III.1: Relationship between the absence of OOS and customer satisfaction 79

Table III.2: Relationship between the tracking of the shipment process and customer satisfaction.....79

Table III.3: Relationship between the reverse logistics and customer satisfaction 80

List of abbreviations

CEO: Chief Executive Officer

CM: Community Manager

CNRC: Centre National du Registre de Commerce

E-SCM: Electronic Supply Chain Management

ESI: Ecole Supérieure d'Informatique

EDI: Electronic Data Interchange

FAQ: Frequently Asked Questions

FDI: Foreign Direct Investment

ICT: Information and Communication Technology

ID: Identity Card

IT: Information Technology

OOS: Out Of Stock

SC: Supply Chain

SCM: Supply Chain Management

SKU: Stock Keeping Unit

TQM: Total Quality Management

YO: Years Old

Content

Introduction.....	1
Chapter I: Supply Chain Management: Literature Review.....	5
1- General Concept of Supply Chain Management	6
2- Logistics within a selling website.....	20
Chapter II: Customer Satisfaction within a Selling Website.....	29
1- Customer satisfaction.....	30
2- SCM and customer satisfaction.....	34
3- selling website.....	42
Chapter III: Empirical Study	50
1-State of affairs of e-commerce in Algeria	51
2- Presentation of the host entity	58
3- The methodological framework of the study.....	60
4- Case study analysis	67
Conclusion	87

Introduction

With the advent of technologies in general and Internet in particular, many processes and methods are changing. This development touches the different disciplines and sectors; commerce is one of them.

Indeed, commerce is witnessing a new era and everything related to it is changing as well. The distribution and communication channels are not the same, the products and services are different and the customers' needs and expectations are various.

Thus, the business owners should follow the flow and their offers need to meet the customers' expectations.

Since people are becoming more and more addicted to the internet, e-commerce knew a disruptive growth in the last decades. Suppliers and business owners are day after day present on social networks and on their own platforms. The offers are manifold and various. The world is becoming a village, citizens from different nationalities are in touch with each other and the ability to place an order anytime anywhere is encouraging this phenomenon.

This reality is happening all over the world and Algeria is concerned too. Day after day, the Algerian Internet user is getting more familiar with the latest technologies and online transactions. Many electronic commerce websites, online stores and selling accounts are emerging. The Algerian government is aware about the situation; a whole law is dedicated to e-commerce and its legislation.

However, the customers' requirements change with the change of the context. Many obstacles are appearing; electronic payment, return processes, on time delivery, adapted and easy system, trust towards the brand and many other barriers. The e-suppliers are then facing new challenges that they should definitely face to succeed.

Hence, the necessity of adopting a suitable and coherent supply chain management with the recent updated tools and methods.

Supply chain management aims to deliver the right reference to the right customer at the right moment in the best conditions with the minimum defects. It tackles one of the Mix Marketing pillars, distribution (place).

It is no longer time for traditional logistics nor management tools. It is the technologies' era. Software, information systems and new techniques. It is all about a new chapter within the customer journey; it is time for electronic supply chain management.

Moreover, any online business owner can be distinguished from the concurrence, an added value is required; customer satisfaction.

Many business pioneers and researchers had already proved that supply chain management increases the customer satisfaction. However, it is still undecided on how it is and which link contributes in it more than the others do in the Algerian context. Therefore, we choose to study the impact of supply chain management on customer satisfaction, and particularly within an Algeria electronic commerce website that is in the launch phase.

What led us to choose this research theme is the importance of customer satisfaction in e-commerce platforms sustainability knowing that a positive word-of-mouth is precious and can generate important profit.

In this research, we will emphasize on both, supply chain management and customer satisfaction, and we will conclude with the impact of SCM on customer satisfaction, case of an e-commerce website. Through this study, we must answer a main question, which is:

How does supply chain management satisfy the current and potential customer?

To answer this main question, we must answer three other elementary questions that are:

Q1: How does a high stock rotation influence the customer satisfaction?

Q2: What is the impact of the shipment process tracking on the customer satisfaction?

Q3: Does a clear and easy reverse logistics process contribute to the reliability of the website?

We based our research on one supposition for the global research and three other suppositions made on the basis of limited evidence as a starting point for further investigation of the three elementary questions, and they are formed as the following hypotheses:

H1: The stock rotation influences favorably on the customer satisfaction.

H2: The tracking of the shipment process influences positively on the customer satisfaction.

H3: A clear and easy reverse logistics process contributes to the reliability of the website.

In our study, we have made a deep documentary and bibliographic research. We discussed about the supply chain management, the electronic supply chain management and e-commerce, the state of affairs of e-commerce in Algeria and the customer satisfaction within an e-commerce website.

How does our host entity, Clozer Tech & Consulting is selecting the most suitable design and information system for their e-commerce website in order to deliver the best experience to the Algerian customers and increase their satisfaction.

For the purpose of the study, which is to assess levels of customer satisfaction along the value chain in the Algerian context, we adopted a descriptive and an analytical methodology through a quantitative and qualitative study. We distributed a questionnaire on social networks for the Algerian Internet users and organized a focus group with Algerian e-costumers.

To fulfill the purpose of this research, we have sectioned this thesis into three chapters as follows:

In the first chapter, we had an overview about supply chain management, electronic supply chain management and its development. We have also seen the logistics within an online store and the difference between both traditional and electronic logistics.

In the second chapter, we talked about the customer satisfaction in general and within a selling website. We emphasized on the e-commerce website structure, as well as on the different links of the SC.

In the third and final chapter, we started by presenting the current situation of electronic commerce in Algeria, then we presented our host entity Clozer Tech & Consulting. We had also further detailed our research methodology and analyzed the collected data from the questionnaire and the focus group related to our case study.

We had chosen this theme because it is directly linked to our field of study; supply chain management, so it is an opportunity for us to apply what we had earned during our university curriculum and have a further look at it from a practical point of view.

In the other hand, we find that electronic commerce is a hot topic these days. It is the future. And especially in Algeria, online stores sprout so fast and the perception is different, so we wanted to go beyond what is perceived.

To realize this, we did not find a better place than a new born entity. Clozer Tech & Consulting is a start-up that took shape last year in order to accompany the companies, strengthen the B2C relationship, provides the business owners with personalized information systems and solutions

Chapter I:
Supply Chain Management: Literature Review

Introduction of the chapter:

In general, theoretical concepts are manifold in management and business. Many literature reviews depict the right, detailed and insightful meaning of each element. However, some concepts and notions still confusing despite the copious and joint endeavour of the researchers. Supply Chain Management and Logistics can be confusing and, in some cases, may look the same. Sometimes we use "logistics" and "SCM" interchangeably. In other cases, we perceive SCM as the "new" logistics, whereas one is including the other.

In this chapter, we will tackle the general concept of SCM, its evolution and emphasize on e-SCM in order to ensure a basic grasp in the ensuing chapters.

1-Electronic Supply Chain Management: Literature Review

1.1 General Concept of Supply Chain Management

Supply Chain Management: integrative philosophy used to manage the total flow through a distribution channel from the supplier to the ultimate user.

Management of a chain or operations and centers through which suppliers move from the source of supply to the final customer or point of use.

The supply chain thus extends from the raw material extraction or fresh concept origination through many processes to the final sale of the final product, whether goods or services, to the consumer.¹

SCM is the active management of supply chain activities to maximize customer value and achieve sustainable competitive advantage. Supply chain activities cover everything from product development, sourcing and production to logistics, as well as the information systems needed to coordinate these activities.²

The organization that makes up the supply chain are "linked" together through physical flows and information flows, forming partnerships that add value to the customer experience. Physical flows involve the transformation, movement and storage of goods and materials. Information flows allow the various supply chain partners to coordinate their long-term plans and to control the day-to-day flow of goods and material up and down the supply chain.³

¹*Purchasing and SCM strategies and realities by Michael Quayle p.20*

²https://cscmp.org/CSCMP/Certify/Fundamentals/What_is_Supply_Chain_Management.aspx?WebsiteKey=0b3f453d-bd90-4121-83cf-172a90b226a9 Consulted on January the 15th at 2.30 P.M.

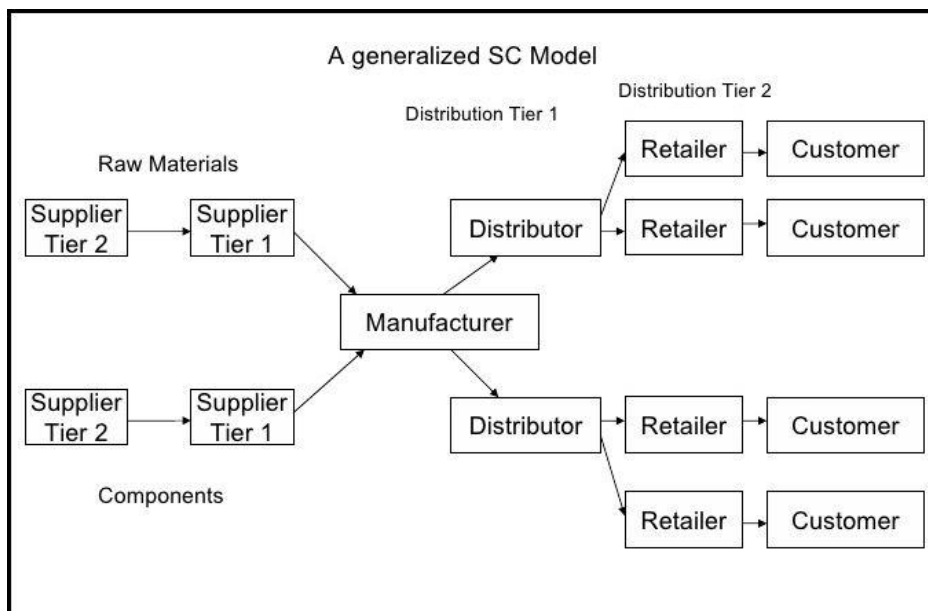
³ *Council of Supply Chain Management Professionals.*

Supply Chain Management: “involves all collaboration between firms to connect suppliers, customers and other partners as a means of boosting efficiency and producing value for end consumer”¹.

We can define SCM as a process used by companies to ensure that their supply chain is efficient and cost-effective. It is a flow of products and services, which begins from the origin of the product and ends at the product's consumption. It also comprises the movement and storage of raw materials that are involved in work in progress, inventory, and fully furnished goods.

A supply chain is the collection of steps that a company takes to transform raw materials into a final product. It is a regular flow of materials, goods, and related information among suppliers, companies, retailers, and consumers.

Figure 1.1: A generalized Supply Chain Management Model



Source: www.bilderbeste.com consulted on January the 20th at 2.30 P.M.

The figure below shows the general structure of a supply chain; starting from the supplier's supplier to the production unit and ending up with the distributor to retailer until the final customer.

Since we are talking about a chain, it is mandatory to mention that it has a beginning and an end. The starting point of any SC stands in its upstream and the end in its downstream. Going through this process needs a flow management.

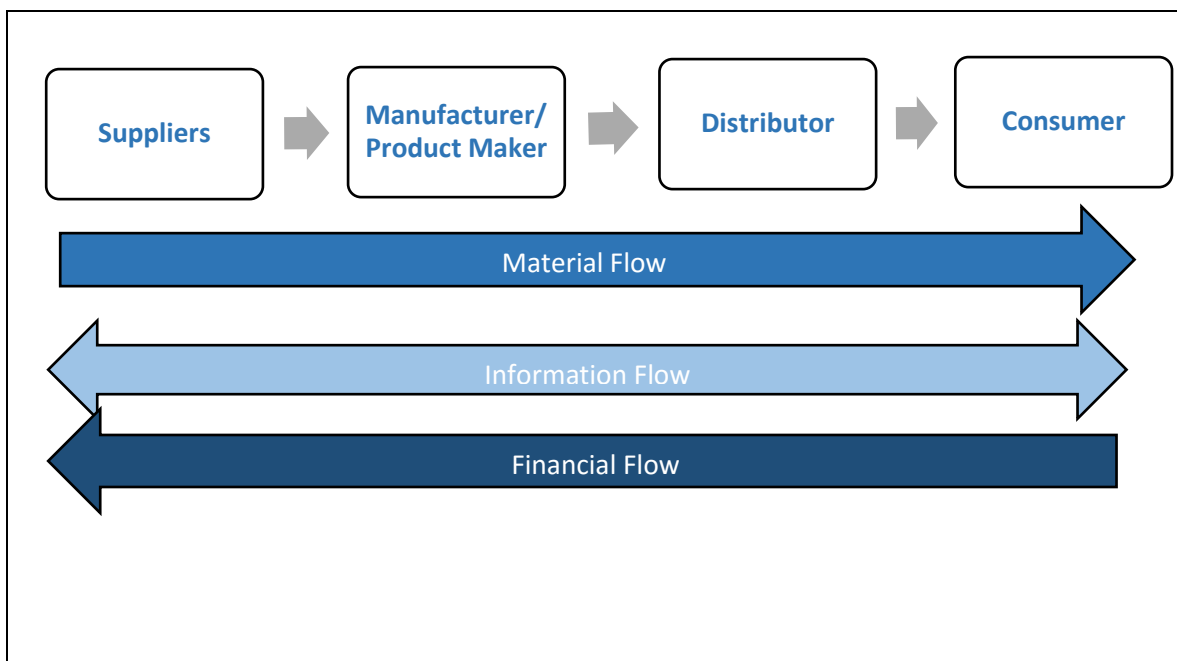
¹Michigan State University professors Donald Bowersox, David Closs and M. Bixby Cooper in *Supply Chain Logistics Management*

Upstream: it is a stage of a production process that involves searching and extracting raw materials. It has nothing to do with the material itself, it simply finds and retrieves the raw material (the suppliers). Transporting and shipping these materials to the plant belongs to this phase too. Thus, any industry that relies on the extraction of raw materials has an upstream stage in its production process.

Downstream: it involves the processing of raw materials gathered during the upstream phase to a finished product. It sprawls on the shipping partners, wholesalers, retailers to the customer service. The inventory management is vital in this activity in order to fulfill the demand without overstocking nor being in a stock-out situation.

SCM is also the management of these three flows: material (product) flow, information flow, and financial flow.

Figure 1.2: Flows and SCM



Source: own conception.

As we can see above, the physical flows go from the upstream to the downstream; from the supplier to the customer. The financial flows go from the customer to the supplier, whereas the information flows are in both directions.

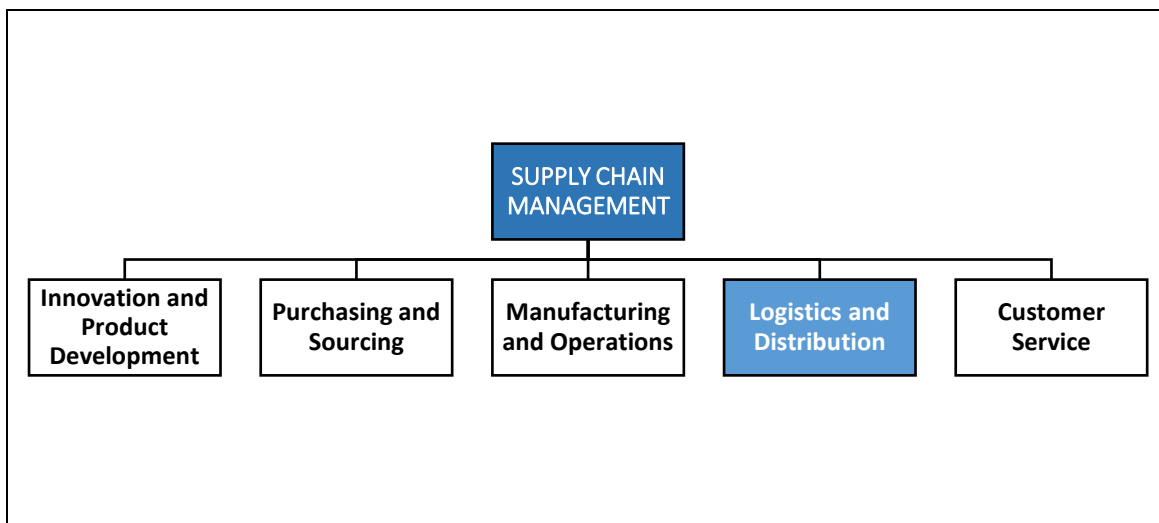
Logistics and SCM:

Mostly, logistics and SCM are confused or used synonymously. However, logistics is a component of SCM. It consists of moving a product or a material so it arrives in the right place, at the right time and in the most efficient way. It includes many activities such as packaging, transportation, distribution, warehousing and delivery.

In the other hand, SCM involves a more extensive range of activities, such as the sourcing of raw materials, finding the best prices on goods and materials, managing the whole chain and achieving the optimum without forgetting the customer satisfaction.

Logistics has always been about managing the synchronization of the needs of individual companies for product and service acquisition with the resources available from suppliers, on the one side, and distribution functions to meet the demands of the customer, on the other. The SCM concept, enhanced by the power of Internet technology, is the maturation of these essential value-added functions.¹

Figure1.3: SCM and logistics



Source: own conception.

1-1-1 Evolution of SCM:²

Although the concept of SCM has just appeared, the researcher says that we can trace its development back to the rise of modern logistics. Over the past 30 years, logistics has progressed from a purely operational function to a critical strategic component.

A- Historical beginnings:

For centuries, enterprises have been faced with the fundamental problem that demand for goods and services often extended far beyond the location where products were made. It had always been the role of the logistics functions within the company to fill this gap in the marketing,

¹<https://vdocuments.site/e-supplychainbook.html> consulted on January the 17th at 3.30 P.M.

²DAVID F.ROSS INTRODUCTION TO E-SCM, engaging technology to Build Market-Winning Business Partnerships. P. 4, 5, 6.

distribution, and procurement systems by providing for the efficient and speedy movement of goods and services from the point of manufacture to the point of need. The critical dynamics of this process consist of time to delivery, cost, and ease of exchange. Companies that have been able to effectively leverage the supply channels linking them with their customers and suppliers can more profitably operate and focus their productive functions while extending their reach to capture marketplaces and generate demand beyond the compass of their physical locations.

According to the author, we can describe supply chain system concept as a network of interdependent partners. Partners who not only supply the necessary products and services to the channel system, but who also stimulate demand and facilitate the synchronization of the competencies and resources of the entire supply chain network to produce capabilities enabling a level of operational excellence and marketplace leadership unattainable by each business operating on its own.

B- Stages of SCM development:

Historically, synchronizing the supply chain has always occupied a central position in the management of the enterprise, linking business marketing and sales strategies with manufacturing, inventory, and service execution. As far back as the beginning of the twentieth century, economists considered the activities associated with effectively managing business channels to be the fundamental mechanism by which we exchange goods and services through the economic system. However, despite its importance, this concept, first termed logistics, was slow to develop. Most business executives considered the channel management function to be of only tactical importance and, because of the scope and lack of integration among supply network nodes, virtually impossible to manage as an integrated function. It was not until the late 1960s when cost pressures and the availability of electronic information tools enabled forward-looking companies to begin to revamp dramatically the nature and function of the supply chain that the strategic opportunities afforded by logistics began to emerge.

The SCM concept consists of five distinct management stages. We can describe the first stage as the era of internal logistics departmentalism. In the second stage, logistics began the migration from organizational decentralization to the centralization of core functions driven by new attitudes associated with cost optimization and customer service. The third stage witnessed the dramatic expansion of logistics beyond a narrow concern with internal warehousing and transportation to embrace new concepts calling for the linkage of internal operations with similar functions performed by channel trading partners. As the concept of channel relationships grew, the old logistics concept gave way, in stage-four, to full supply chain

management. Today, with the application of Internet technology to the SCM concept, we can describe SCM as entering into stage five, e-SCM.

Table1.1: SCM development stages:

Stage 1 to 1960s	Stage 2 to 1980	Stage 3 to 1990	Stage 4 to 2000	Stage 5 +2000
Warehousing and Transportation Operations performance Support for sales/marketing Warehousing Inventory control Transportation efficiencies Decentralized logistics functions Weak internal linkages between logistics functions Little logistics management authority	Total Cost Management Logistics centralization Total cost management Optimizing operations Customer service Logistics as a competitive advantage Centralized logistics functions The growing power of logistics management authority Application of computer	Integrated Logistics Management Logistics planning Supply chain strategies Integration with enterprise functions Integration with channel operations functions Expansion of logistics functions Supply chain planning Support for TQM Expansion of logistics management functions	SCM-Strategic view of supply chain-Use of extranet technologies Growth of evolutionary channel alliances Collaboration to leverage channel competencies Trading partner networking Virtual organization Market coevolution Benchmarking and reengineering Supply chain TQM metrics	e-SCM Application of the Internet to the SCM concept Low-cost instantaneous sharing of all databases e-Information SCM synchronization Networked, multi-enterprise supply chain .coms, e-tailers, and market exchanges Organizational agility and Scalability

Source: DAVID F.ROSS INTRODUCTION TO E-SCM, engaging technology to Build Market-Winning Business Partnerships

1-1-2 Advantages of SCM:

Having an effective SCM in place allows a company to have a competitive advantage. Here are some advantages that a good SCM can offer:

1- Higher Efficiency Rate: it is necessary to have an SCM within a company in order to adjust more dynamically to the fluctuating economy. Having a good SCM helps in predicting the demand and act accordingly, hence a higher efficiency rate.

2- Decreased Costs: by improving inventories, stabilizing relationships with distributors and vendors and producing according to the customer requirements.

3- Collaboration: having a SC in an entity adds up to fantastic coordination of all the business entities. When there is a lack of communication between the vendors or distributors, a terrible misunderstanding may occur. However, if a sound SC system is embraced, more exceptional communication with forecasts, reporting, and quotation will have birth.

4- Increased Outputs: once an entity has a good collaboration, the production and distribution process are streamlined, the overall output is improved. As a result, the business is more profitable.

5- No More Delays: the tasks are clear and each area has on what it should focus on. No more errors in logistics nor the distribution channels. A better shipment process is in place and a good relation business to customer. All this will contribute in delivering the reference to the customer in a shorter time and without damages.

6- Stay on Top of Demand: “Tight supply chain integration gives management operational flexibility to respond rapidly to external events, such as the actions of competitors and changes in customer demand. Companies can gather intelligence through their supply chains, which allows them to be generally aware of what their competitors are planning months in advance”.¹

7- Eliminate Waste: The amount of produced waste is not negligible. In order to eliminate it or reduce it daily, some lean practices within SCM can help to identify areas of waste improvement.

8- Improve Customer Service: with the help of logistics and SC technology, it is easier to put the products in the hands of the customers. Investing in a SCM allows tracking the shipments, products, and materials on the supply side easily.

¹ChirantanBasu, contributor of the Houston Chronicle. <https://smallbusiness.chron.com/advantages-tightly-integrated-supply-chain-37115.html> consulted on January the 18th at 9.30 P.M.

1-2 - General concept of e-supply chain management:

The researchers most commonly refer electronic supply chain management to as e-supply chain management. It combines the concepts of electronic business (e-business) and supply chain management (SCM), and depicts how trade channel members are working together to optimize resources and opportunities.¹

E-SCM is the collaborative use of technology to improve the operations of supply chain activities as well as the management of supply chains.²

E-SCM is the use of web technologies in the SCM activities that captures the degree to which we integrate Internet technologies with supply chain activities.³

E-SCM is the collaborative use of web technologies to perform business activities and to enhance communication efficiency with customers, improve speed and agility, provide real-time control, and increase customer satisfaction. Infrastructure such as the online information systems on the Internet, EDI, and the reliability of both hardware and software are critical to the formation of e-SCM and effective communication between the members of the supply chain.⁴

A- Usage of e-SCM:

The use of e-SCM empowerment reflects the efforts of companies to take advantage of the potential of recent advances in communication technologies in the SCM and strategies related activities. Despite making significant investments in web technologies, there is a considerable variation in the extent, to which firms can understand these technologies and take advantage of their potential use in SCM. Companies that do not effectively use web technologies take the risk of a decline in their competitiveness, apart from the lack of any significant value from their investment.⁵

The process of SCM is rarely unfolds in a systematic way, unpredictable and often face many challenges. We need to understand e-SCM processes in parallels to the concepts of “the use of technology” and “technology absorption” prevailing in the study of management information systems. It has been widely accepted that the current level technology usage as a criterion indicator for the success of information technology in organizations.

¹ Neil Kokemuller, Updated September 26, 2017, www.bizfluent.com consulted on April the 15th at 22.05

²<https://fr.slideshare.net/ashish1992jain/esupply-chain-management-34480338> consulted on April the 15th at 23.53

³ *The impact of electronic supply chain management usage on firm's performance* Khalid Mansour, Damian Almajali, Ra'edMasa'deh, Mahmoud Maqablehhttps://www.researchgate.net/publication/304541372_The_Impact_of_Electronic_Supply_Chain_Management_Usage_on_Firm's_Performance consulted in April the 20th, at 13.05

⁴ *Ibid*

⁵ *Ibid*

Many researchers have sought to understand the commercial value of an experimental technology has documented the importance of the level of technology use¹.

Researchers consider the effective use of technology as one of the main factors used in evaluating the association between IT and its implementation benefits.

B- E-SCM and performance²:

Although the experimental results about the efficiency of deploying e-SCM have been contradictory in the previous studies, there is a clear recognition with respect to the difficulty in directly linking the use of information technology to business performance. Researchers have recommended the assessment of the impact of technology through the study of specific benefits through the implementation of a system. A previous study has found that deploying an electronic data interchange (EDI) systems produces significant improvements in performance. Researchers examined the value and impact of e-commerce by using e-procurement case study. They found that the process of purchasing on the web could provide a better description for the items than in the traditional purchasing process. Others examined the use of SCM systems by 131 suppliers of large retail stores, documented experimentally the relationship between the use e-SCM and benefits, and reported a positive relationship between using e-SCM and benefits.

Other researchers collected data from 260 manufacturing companies; they show that the increasing use of web technologies is associated significantly and positively with the efficiency of the supply chain. Moreover, the higher levels of performance are associated with higher levels of e-SCM activity. Recently, they came up with a shred of evidence to raise the level of performance following a series of e-SCM initiatives. It shows that the investment in information technology in the SCM creates more efficient functionalities than traditional functionalities provided in SCM, which leads to increased performance. Increasing the use of digital technology in the supply chain enhances the operational and strategic coordination, which ultimately leads to better performance.

E-SCM in small and medium-sized companies is a tactic that helps organizations to be more flexible and cost-effective by integrating the different partners' processes at all three levels of

¹[https://www.scirp.org/\(S\(351jmbntvnsjt1aadkposzje\)\)/journal/PaperInformation.aspx?PaperID=67746](https://www.scirp.org/(S(351jmbntvnsjt1aadkposzje))/journal/PaperInformation.aspx?PaperID=67746) consulted on January the 21st at 11.30 A.M.

² *The impact of electronic supply chain management usage on firm's performance* Khalid Mansour, Damian Almajali, Ra'edMasa'deh, Mahmoud

Maqablehhttps://www.researchgate.net/publication/304541372_The_Impact_of_Electronic_Supply_Chain_Management_Usage_on_Firm's_Performance consulted in April the 20th, at 02.05P.M.

strategic, tactical, and operational management. Although globalization has increased the pressure on small and medium-sized companies to reduce their prices, e-SCM can improve the performance of small and medium-sized enterprises and the growth of profitability by enhancing their ability to obtain supplies of the right quality, at the right time, and the most affordable ones. The primary goal of e-SCM is to reduce the overall costs of the SCM systems while meeting service requirements and integrating the purchase of customer queries, manufacturing, and storage in small and medium-sized companies. Electronic supply chain integrates all information chains on both, the client side and the supplier side. Electronic supply chain management is the main application in small and medium-sized companies that help achieving lower operating costs, improve service quality, reduce order cycle time, keep low inventory levels, improve customer satisfaction and the development of the overall competitive advantage. The use of information technology in small and medium-sized companies improves supply chain operations such as procurement, as well as supply chain management. Supply chain management includes planning, coordination, and so on. Moreover, e-SCM is not about changing the technology only; it also includes altering the business methods, management policies and procedures, performance level, and organizational culture and structure across the supply chain.

The performance and benefits of e-SCM for SMEs includes gaining a competitive advantage through relationships between customers and suppliers. Electronic commerce can serve as empowerment that offers a clear competitive advantage. B2B electronic SME market provides high strength and high supply chain capabilities for online interaction. The economic benefits gained from e-commerce include reducing time to market, lowering operating costs, and increasing revenue growth and enhancing the level of customer service.

1-3-E-business and e-commerce

A- E-business:

E-business is the digital enablement of transactions and processes within a firm, involving information systems under the control of the firm, which does not include the company's revenue.¹

The three primary processes enhanced in e-business:²

¹ *E-commerce, Kenneth C. Laudon, and Carol GuercioTraver 2001, p.7.*

² *E-commerce and E-business, Zorayda Ruth Andam, e-ASEAN Task Force, UNDP APID, p7.*

1-Production processes: which include procurement, ordering, and replenishment of stocks, processing of payments, and electronic links with suppliers and production control processes, among others.

2-Customer-focused processes: which include promotional and marketing efforts, selling over the internet, processing of customers' purchase orders, payments, and customer supports, among others.

3-Internal management processes: which include employees' services, training, internal information sharing, video-conferencing, and recruiting. Electronic applications enhance information flow between production and sales forces to improve sales force productivity.

In addition, workgroup communications and electronic publishing of private business information are likewise more efficient.¹

B-Major types of e-business: There are several types of business methods in today's e-business scope, such as « *Business-to-Consumer (B2C)*, *Business-to-Business (B2B)*, *Consumer-to-Consumer (C2C)*, *Peer-to-Peer (P2P)* and *Mobile or m-Commerce* »².

Business-to-Consumer (B2C): we can see the B2C model from many websites because it sells the products, information, and service to consumers and gains the revenue. The B2C model involves a business selling directly to consumers via a website.³

This direct selling is the main reason that companies create these web sites. Also from these websites' revenue models, online businesses can be sorted into five different categories such as « advertising revenue model, transaction fee revenue model, subscription revenue model, sales revenue model, and affiliate revenue model.»⁴

Advertising is the most familiar way for a web site to make profits. A web company provides the service for other companies or web companies to put the advertisements on its website and receives payment from those companies.⁵

Business-to-Business (B2B):« *Before the internet, business-to-business transactions were referred to simply as trade or the procurement process. The term total inter-firm trade refers*

¹https://en.wikibooks.org/wiki/E-Commerce_and_E-Business/Concepts_and_Definitions consulted on February the 3rd at 11.30 P.M.

²Laudon&Traver, 2001, p.13

³<https://pdfs.semanticscholar.org/a484/835d8e3e828e953b1c0b1633f586d670055d.pdf> consulted on February the 4th at 11.30 A.M.

⁴Laudon&Traver, 2001, p.61.

⁵ *E-business and supply chain management. Jorge R. Leon-Pena, p.80*

*to the total flow of value among firms. Today we use the term B2B Commerce to describe all types of computer-enabled inter-firm trade such as the use of the Internet and other networking technologies to exchange value across organizational boundaries».*¹

Consumer-to-Consumer (C2C):²C2C commerce helps consumers find and sell goods to each other as an online market provider. For example, the online auction web site, ebay.com provides web space for both buyers and sellers (consumers and consumers). Sellers can post the goods that they want to sell on eBay's web page and eBay charges sellers a percentage on the prices of goods sold. As an online marketplace provider, eBay does not need to take too much control of these goods on its web pages and allows users to communicate with each other. Most of these types of online marketplace providers do not provide any payment system for their users because if the company built a high-security payment system, this could be very expensive. Users need to make a payment by sending a money order or personal check, or through other payment systems from third parties.

Peer-to-Peer (P2P) or Mobile Commerce:³P2P commerce provides its users the software to install in the users' pc and allows the P2P provider to use the pc along with the company pc as a supercomputer. Some of P2P software could work together for science research while the users are not using their computers and users will have free access to use the web site's resource online. Using another type of P2P commerce, users can search whatever kind of entertainment resource they are interested in through the P2P software's search engine and download music, pictures, movies, and documents from other people's computers that also have the same P2P software installed. Mobile commerce refers to the use of small mobile devices to send and receive information.

C-E-commerce:

Electronic commerce refers to a wide range of online business activities for products and services. It also pertains to any form of business transaction in which the parties interact electronically rather than by physical exchanges or direct physical contact.

E-commerce is usually associated with buying and selling over the Internet or conducting any transaction involving the transfer of ownership or rights to use goods or services through a computer-mediated network.⁴

¹Laudon&Traver 2001, p.65

² León-Peña J.R. - *e-Business and the Supply Chain Management* p.82, 83, 84.

³ Ibid

⁴<http://www.ijccr.com/January2014/10.pdf> consulted on February the 6th, at 1.30 P.M.

E-commerce is the use of electronic communications and digital information processing technology in business transactions to create, transform, and redefine relationships for value creation between or among organizations, and between organization and individuals.

D-Forces were fueling e-commerce: There are at least three significant forces fueling e-commerce: economic forces, marketing, and customer interaction forces, and technology, particularly multimedia convergence.

Economic forces: One of the most apparent benefits of e-commerce is economic efficiency resulting from the reduction in communications costs, low-cost technological infrastructure, speedier and more economic electronic transactions with suppliers, lower global information sharing and advertising costs, and cheaper customer service alternatives. Economic integration is either external or internal. External integration refers to the electronic networking of corporations, suppliers, customers/clients, and independent contractors into one community communicating in a virtual environment (with the Internet as the medium). Internal integration, on the other hand, is the networking of the various departments within a corporation, and business operations and processes. This allows the storage of critical business information in a digital form and instant retrieve and electronic transmission. Corporate intranets best exemplify internal integration¹.

Market forces: Corporations are encouraged to use e-commerce in marketing and promotion to capture international markets, both big and small. We use the Internet as a medium for enhanced customer service and support. It is a lot easier for companies to provide their target consumers with more detailed product and service information using the Internet.²

Technology forces: The development of ICT is a critical factor in the growth of e-commerce. For instance, technological advances in digitizing content, compression, and the promotion of open systems technology have paved the way for the convergence of communication services into one single platform. This, in turn, has made communication more efficient, faster, easier, and more economical.³

D-E-business VS. E-commerce:

While some use e-commerce and e-business interchangeably, they are distinct concepts. In e-commerce, information and communications technology (ICT) is used in inter-business or

¹ *E-commerce and E-business, Zorayda Ruth Andam, e-ASEAN Task Force, UNDP APID, p 14, 15.*

² <https://www.omicsonline.org/blog/2015/04/25/10359-What-forces-are-fueling-e-commerce.html> consulted on February the 8th at 9.30 A.M.

³ <https://www.wisdomjobs.com/e-university/e-commerce-concepts-tutorial-7/driving-forces-of-e-commerce-11846.html>, consulted on February the 8th at 10.30 A.M.

inter-organizational transactions (transactions between and among firms/organizations) and in business-to-consumer transactions (transactions between and among firms/organizations and individuals).¹

In e-business, on the other hand, we used ICT to enhance one's business. It includes any process that a business organization (either a for-profit, governmental or a non-profit entity) conducts over a computer-mediated network. A more comprehensive definition of e-business is the transformation of an organization's processes to deliver additional customer value through the application of technologies, philosophies, and computing paradigm of the new economy².

E- e-Fulfillment:

This term refers to the activity of physically delivering products and services placed in the network supply system through e-commerce transactions. Failure to execute on fulfillment was one of the most critical contributing factors to the destruction of most dot-coms during the years 2000.2001.

Today, supply networks are expending considerable effort to perfect their Web-based service and delivery systems, to ensure that each Internet order truly converts into a real profit. E-Fulfillment can be broken down into four critical elements.

First, e-commerce customers expect online visibility of channel inventories and e-mail 24h/24 7/7 and 365/365 notification of order status.

Second, the personalization of the ordering process is essential. Customers still want the same kind of services, such as gift-wrapping and greeting cards. They have come to expect from the retail environment. Third, faster cycle times are a given. Customers expect the same speed in delivery as they enjoyed during order entry. Moreover, finally, e-fulfillment changes the traditional order profile. Instead of case lots and full pallets, piece picking is the norm.³

F-E-Procurement:

This term refers to the automation and integration of the purchasing process by the application of e-procurement software and the growth of B2B trading exchanges. B2B exchanges, enabled by ERP or *application service provider* (ASP) exchange platforms, provide firms with the capability to implement new methods of orders that have been able to reduce inventories and shrink costs by 50 to 70%. Exchanges enable select groups of trading partners to bid on goods

¹ *E-commerce and E-business, Zorayda Ruth Andam, e-ASEAN Task Force, UNDP APID, p15.*

² <http://www.ijccr.com/January2014/10.pdf>, consulted on February the 8h at 11.30 A.M.

³ *DAVID F.ROSS INTRODUCTION TO E-SCM, engaging technology to Build Market-Winning Business Partnerships. P.50*

and services, a method most appropriate for the liquidation of excess inventories and used equipment.

E-Procurement is also facilitated by B2Bs reverse auctions and online catalogs, tools useful for commodity-type purchasing and MRO materials.¹

G-Collaborative Commerce (c-Commerce) :

C-Commerce is Gartner's term, the consulting and research group. They defined it as a business strategy that seeks to utilize Internet technologies to enable closer collaboration of channel network partners. While consulting groups, software companies, and business seminars on c-Commerce abound, the concept is still in its early stage. Today, the amount of collaborative activities is relatively small and the vision of a fully synchronized network of customers, manufacturers, suppliers, and service providers transferring critical supply chain information in real time is years away. Still, the benefits of c-Commerce; closer and timelier contact with the customer, better channel inventory management, faster time-to-market, improved supplier synchronization, and increased revenues have been realized by early adopters like Dell.²

2-Logistics within a selling website:

With the development of e-commerce, the distribution has flourished, too; it witnesses a real revolution. The e-commerce itself attracts more consumers day after day, thanks to the large choice that it offers, the different competitive prices and of course, its easiness.

However, this remarkable phenomenon requires new methods and procedures for distribution. We usually associate the term e-logistics to e-commerce and it is a crucial element to success. If we master the e-logistics, we can say that the most important key to success is between our hands.

Indeed, the delivery delays, wrong orders, and items can harm the customers' satisfaction and their loyalty towards the brand.

The supply chain is simplified, the absence of the intermediate actors such as wholesalers and especially retailers have a direct impact on the shipping process, payment, information, and warehousing. All this leads to a cost increase which means a better optimization of the whole supply chain. In this upcoming section, we will define the e-logistics, know its historical development and implementation and tackle the e-commerce website structure.

¹ *Ibid*, p.52.

² *Ibid*, p.50.

2-1-E-logistics

2-1-1-Definition of E-logistics:

E-logistics, a term that appeared in the 2000s, is a mixture of e-commerce and logistics. We use electronic logistics, e-logistics, internet-enabled logistics, or e-business (e-commerce) in both academia and practice¹.

“E-logistics, a global view of the logistics management of an e-commerce store.”²

E-logistics is the management of the various phases and stages of the order processing, starting from an online selling website to the treatment of the upstream and downstream phases. Some consider e-logistics as a supportive delivery process for fulfilling online e-commerce orders. Others believe that e-logistics implies the use of information and communication technology to support the provision and execution of a broad range of logistics activities³:

- Receipt and packaging of products, which consists of sorting and possibly labeling,
- Storage,
- Picking (moving the products to prepare orders),
- Preparation of the order (packaging and printing of the delivery note, possibly accompanying card),
- Support by the shipper agents.

We track all these steps need using the tracking tools (tracking orders). The point is to provide the customers with the necessary information (real-time and status of orders) and facilitate the various operations tracking.

2-1-2- Historical development:

Table 1.2: The historical development of e-logistics systems

Evolutionary Stages	The 1960s	The 1970s	The 1980s	The 1990s	The 2000s	2010+
Typical E-logistics systems	Accounts receivable, inventory management	Transport planning application; MRPI	TMS, WMS, MRP II	ERP, DSS, CRM	ERP II, internet based, ELM or	Internet-based community systems, mobile apps

¹<https://www.coursehero.com/file/p4glg515/Creating-better-information-flows-between-organizations-can-also-help-to-reduce/>

²Lisa Longo, Head of e-commerce, Endurance logistique. <https://www.endurancelogistique.fr/> Consulted on April the 9th at 11.53

³ E-logistics: an introduction Yingli Wang Cardiff University. P. 4.

	also, control				e-logistics network	
Emergent IT Trends	Stand-alone applications	Siloed functional applications	Applications portfolios	Integrated systems	Service-oriented architecture and web-based services	Multi-scale ecologies, cloud computing, Web 2.0, mobile also, social media
Integration Focus	Functional	Functional	Functional	Internal end-to-end integration in a company	External integration, extended value chain	Multi-enterprise, collaborative value network
Business Applications	Transaction Automation	Business function automation	Desktop and workgroup automation	Enterprise-wide Automation	Industrial system automation	Cross-industry automation, loosely coupled flexible configuration
Supporting Computer Technology	Mainframe computers	Minicomputers	Personal computers and local area networks	Enterprise-wide Computing	Internet and web platform	Internet and web, mobile platforms

Source: E-logistics: an introduction, Yingli Wang Cardiff University, p.10

MRPI: Material Requirements Planning;

MRP II: Manufacturing Requirements Planning;

ERP: Enterprise Resource Planning;

ERP II: Extended ERP;

TMS: Transport Management System;

WMS: Warehouse Management System;

DSS: Decision Support System,

CRM: Customer Relationship Management;

ELM: Electronic Logistics Marketplace

This table shows the development of logistics through history, with the inclusion of technologies and information systems. We can say that logistics had known a revolutionary evolution.

2-1-3-E-logistics implementation¹:

The e-seller has two options: whether this phase is internal or outsourced. However, the "internal logistics" requires a good master of the whole supply chain (inventory management, orders preparation, and shipments) by the e-supplier, while the "external logistics" can anticipate a possible peak of activity.

Customers are more and more demanding and want require a fast delivery. Hence, being able to rely on a specialized e-logistics provider increases customer loyalty.

However, the logistician plays a vital role in e-commerce. He must know how to manage all the information circulating through the commercial site, the warehouse, the transport, and the management of the anomalies.

E-commerce has become so powerful that logistics has become complicated, but well thought-out and well-structured logistics contribute to the success of an e-commerce business.

- Outsourced logistics²:

For an e-supplier, using a provider to outsource the logistics has many advantages, starting with the variability of logistics costs.

Thus, the costs are directly related to the orders shipped and therefore, to the sales volume achieved. We will witness a decrease in the fixed costs (rent of the storage area) and within the risks associated to the size of a warehouse (too big or too small). In addition to this, a remarkable decline in the wages budget dedicated to labor.

Indeed, logistics outsourcing leads to a reduction in the estimated fees, particularly in personnel management, leave, sick leave, and frequent turnover in the logistics sector.

The quality of services will know a significant advantage because of the entrusted operations to a professional with adapted and efficient equipment.

In the same way, logistics outsourcing simplifies access to transport offers and gives instant access to a wider variety of offers. Thus, the interlocutors' number decreases, and this simplifies the various administrative procedures related to contracts and regulations.

¹RominaDjordjevic, *blog.economie-numerique.net*, consulted on April the 15th at 2.30 p.m.

²<https://www.b2log.fr/externalisation-logistique/> consulted on April the 15th at 3.05 p.m.

Finally, through the logistics outsourcing action, the e-supplier will benefit from the experience and all the innovation capabilities of the professionals involved.

To put it in a nutshell, the advantages of outsourced logistics are:

- Optimization of logistics costs
- Removal of fixed charges
- Alleviation of employees' constraints
- The gain of quality of services
- One-click access to diversified transportation offers
- Reduction of interlocutors and administrative procedures
- Mutualization of materials and transport purchases
- Expertise and innovation capacity.

In summary, for a start-up or a new e-commerce platform, to manage the whole supply chain is feasible. The number of received orders, in the beginning, is not that important. It is evident that a small firm can handle the tasks.

On the other hand, it is important to anticipate a possible rise of the e-shop and to start thinking upstream to the definition of a clear strategy concerning the outsourcing of logistics because one thing is sure, beyond a certain level of orders per day; self-management is not a viable solution.

Logistics is a critical element of e-commerce to integrate when there is an online store. A large number of orders to ship in a minimum of time while managing peaks of activities that vary depending on the day and the season.

To answer this significant problem, outsourcing the logistic activity by relying on a logistics platform becomes unavoidable. However, we have to be careful; we should not confuse the logistics part (storage, packaging ...) with the transport part which is two distinct parts in the sales process, because not all the providers offer a complete solution.

Logistics platforms are partners of many transport companies and have special offers for their customers.

- Outsourcing logistics means:

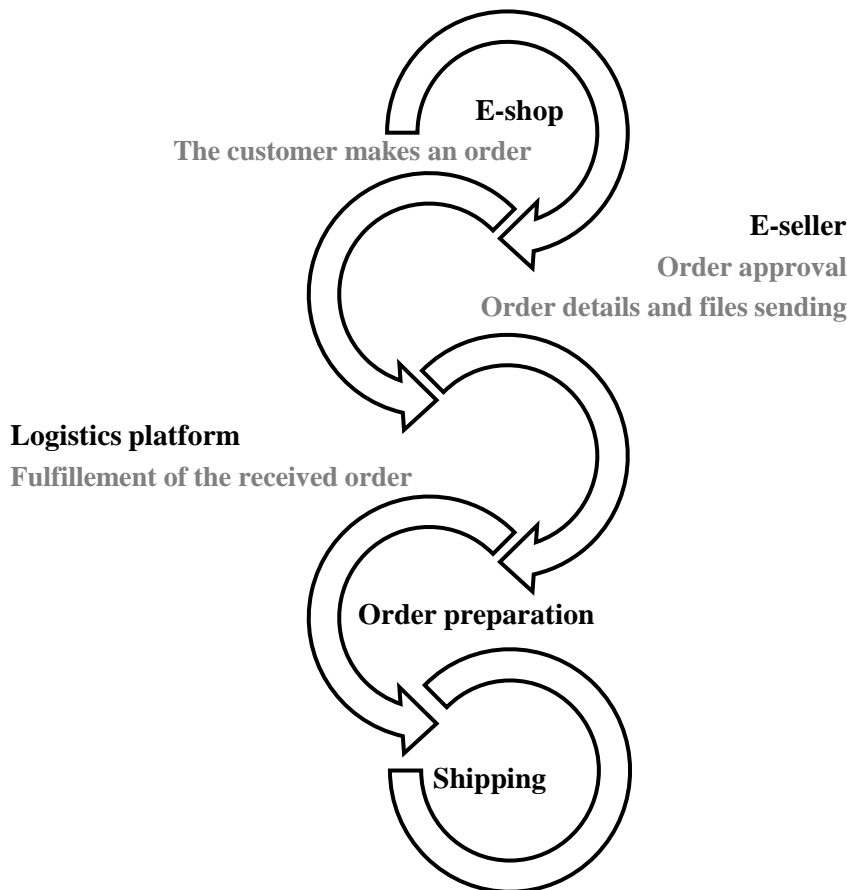
- Benefit from an interface between the e-supplier administration and the logistics platform, which means that we take every order validated on the e-seller site into account. After shipping, the website's owner can track the order, just like the customer, and see the status of the stock.
- Delegate the management of the reception, the control, the storage of the products, as well as the collection, packaging, and shipping of parcels to the customers.

-Better return management, since we reintegrate each returned product into the computer stock or set aside according to its state.

-Offer the customers several types of delivery (economic, express ...).

We can represent the process of recording and sending the order via a logistics platform through:

Figure1.4: Outsourced logistics process: an example



Source: Cédric Piazza Co-founder and Sales Manager, WiziShop, <https://www.wizishop.fr>

Consulted on March the 16th at 3.30 P.M.

As we can see in the example above, the owner of the website receives an order from a particular customer. They approve the same order, and send the details to the logistics' platform. The same platform receives the information, prepares the order, and ships the parcels.

2-1-4-Objectives of e-logistics¹:

Products sold on the Internet must be physically well managed and delivered on time, hence the importance of logistics in the success of an e-commerce website.

However, e-logistics is not only about inventory management and delivery but also about customer relationship management. It must offer more services to meet customer expectations, such as:

-Management of customer returns: the logistician must anticipate returns in case of a non-satisfied customer or a wrong order.

-Traceability tools: the logistician must have a better tool for monitoring various operations and making them accessible to clients.

-The marketing approach: a bright, useful, and relevant logistics encourage customers to buy more.

2-1-5- Reverse logistics²:

The term reverse logistics (RL), which has become only recently part of the current managerial/academic vocabulary, is a process by which a manufacturing company governs the return of its products, parts and materials from the consumption sites, in order to reuse them, recover their residual value, or to dispose of them”.

Reverse logistics combines two concepts: logistics activity and reverse process. It manages the tangible and intangible flows from the market to the production site, and at the same time, it is a distribution channel, where the cargo route goes in the opposite direction unlike the normal one.

Reverse logistics is a broader concept for overall supply chain optimization, which aims to support closed-loop supply chains by the improvement of such activities as product design, supply chain design, and product recovery.

In its turn, Business Dictionary gives the following definition of reverse logistics: “Flow of surplus or unwanted material, goods, or equipment back to the firm, through its logistics chain, for reuse, recycling, or disposal”.

In addition to this, it is worth noting that many logistics companies also give their own definitions of reverse logistics. DHL, the company known as the global market leader in the logistics industry, defines reverse logistics as “*the opposite of procurement, production and*

¹ROMINA DJORDJEVIC, *blog.economie-numerique.net*, consulted on April the 17th at 10.00 p.m.

² Olga Kulikova, *Reverse logistics* consulted on April the 17th at 10.30 p.m.
https://www.theseus.fi/bitstream/handle/10024/114817/Kulikova_Olga.pdf?sequence=1&isAllowed=y

distribution logistics, all of which support product creation and distribution from the first supplier to the customer”.

Logistics VS. E-logistics¹:

1-Transportation: customers require a short delivery time. Transportation cost here is higher than the one in traditional distribution.

2-Information system: e-commerce requires a follow-up of orders until their delivery to the final customer.

3-Storage: the presence of a lower number of common stocks decreases the general stock level (for the same reference, the general level of stocks is directly linked to the number of stocks included in the supply chain). All logistics services with high value-added such as order picking, co-packing, delayed differentiation, must be carried out in a single warehouse.

Conclusion:

This chapter allowed us to have a deep understanding of both supply chain management and electronic supply chain management, as well as e-commerce with its different types and logistics within an e-commerce website.

¹*www.faq-logistique.com consulted on May the 8th, at 1.19 a.m.*

Chapter II:
Customer Satisfaction within a Selling Website

Introduction:

Nowadays, the Internet has become an indispensable element in our daily life, and Internet shopping is a growing phenomenon. Indeed, it is different from traditional shopping and e-customers are not the same.

In electronic commerce, it is very vital to construct to have a good relationship with customers. Everything related to them is different; their expectations, needs, and demands are. Moreover, to retain a customer, we need to have a satisfied customer. For this, customer satisfaction is a priority in each e-commerce website's strategy. We will have in this chapter a further look at customer satisfaction and the structure of e-commerce websites.

1-Customer satisfaction**1-1-General concept of customer satisfaction1:**

From both the theoretical and the empirical perspectives, customer satisfaction is the key to companies' competitiveness; it is the essence of success in today's highly competitive world of business. Most of the managers have been placing significant attention on customer satisfaction to increase their profitability and market share. However, customer satisfaction is the crucial factor for companies to retain their customers, build customer loyalty, and gain more profits and battle for competitive differentiation. Customer satisfaction is often defined as the customers' post-purchase comparison between pre-purchase expectation and performance received. Customer satisfaction is based on the balance between customers' expectations and customers' experiences with the products and services. The researchers had also indicated that when a company can lift a customer's experience to a level that exceeds that customer's expectations, then that customer will be satisfied. Oliver defined customer satisfaction as an evaluation of the perceived discrepancy between prior expectations and the actual performance of the products or services. Kotler defined customer satisfaction as the customer's feelings of pleasure or disappointment resulting from comparing the product's perceived performance about his/her expectations. Others emphasized that customer satisfaction was a post-purchase attitude formed through a mental comparison of the product and service quality that a customer expected to receive from an exchange. The common point concluded from these definitions is the fact that, at least, companies should meet e-customers' expectation in one way or another for customer satisfaction.

¹https://www.researchgate.net/publication/227427958_E-Customer_Satisfaction_in_the_E-Tailing_Industry_An_Empirical_Survey_for_Turkish_E-Customers_consulted_on_June_the_1st_at_5.00_P.M.

1-2-Customer satisfaction and service quality

1-2-1-Online shopping and service quality¹:

Online shopping is the process consumers go through to purchase products or services over the Internet. An online shop, e-shop, e-store, internet shop, web shop, web store, online store, or virtual store evokes the physical analogy of buying products or services over the web.

Online shopping is a type of electronic commerce used for business-to-business (B2B) and business-to-consumer (B2C) transactions.

The term “web shop” also refers to a place of business where web development, web hosting and other types of web related activities take place (Web refers to the World Wide Web and “shop” has an idiomatic meaning used to describe the place).

Customer satisfaction refers to the extent to which customers are happy with the products and services provided by a business. Customer satisfaction levels can be measured using survey techniques and questionnaires. Gaining high levels of customer satisfaction is very important to a business because satisfied customers are most likely to be loyal and to make repeat orders and to use a wide range of services offered by a business.

The basic definition of customer satisfaction says that Customer satisfaction is a business term, a measure of how products and services supplied by a company meet or surpass customer expectation.

Customer satisfaction is an abstract concept, and the actual manifestation of the state of satisfaction will vary from person to person and product/service to product or service. The level of satisfaction can also vary depending on other options the customer may have and other products against which the customer can compare the organization's products or services.

We can attain the overall satisfaction of e-commerce customers by providing the level of service quality that customers perceive in that system. The five dimensions of service quality are tangibility, reliability, responsiveness, assurance, and empathy.

- Tangibles as the appearance of physical facilities, equipment, personnel, and written materials.
- Reliability is the ability to perform the promised service dependably and accurately.

¹<https://www.ukessays.com/essays/e-commerce/website-attributes-customer-satisfaction-4091.php> consulted on June the 1st at 11.30 P.M.

- Assurance describes as the employees' knowledge, courtesy, and their ability to inspire trust and confidence.
- Responsiveness termed as the willingness to help customers and provide prompt service.
- Empathy as the individualized attention given to customers.

The website structure of e-commerce websites is all about the tangibility dimension. We can measure the reliability dimension by an attribute called website adequacy. The website response variable indicates the responsiveness dimension. Website security as another attribute of an e-commerce system refers to the assurance dimension and the empathy dimension described by the website customization.

1-3-Importance of e-commerce in customer satisfaction:

Because customer satisfaction is essential for e-commerce, many researchers conducted Researches to investigate the factors influencing customer satisfaction in e-commerce. There is research to examine the factors influencing the website satisfactions of e-commerce and online community; researchers found out that individual impacts and system quality have significant effects on website satisfaction with e-commerce. This finding indicated that services provided by website system influence on customer satisfaction with e-commerce, particularly timely and faster transaction and search for information. Other researchers discussed customers 'satisfaction through quality services in travel sites, including quality service's weaknesses and strengths. In their studies, they identified six essential criteria in determining customers' satisfaction (navigability, playfulness, information quality, trust, personalization, responsiveness).

Many previous studies have focused on web site system quality; however, some studies identify customers' satisfaction from various aspects rather than only focusing on web site system quality.

For example, to not only focus on web site system qualities but also focus on other factors which are product quality, delivery quality, and perceived price. Those factors are also crucial for the online shopping process as they are the outcome of online shopping and found out that customers consider product and delivery more critical. Thus, e-commerce proprietors should pay more attention to the product sourcing and cooperate it with the delivery supplier to provide a higher quality delivery, such as correct order, time schedules, and safe packaging.

Moreover, other studies identified factors influencing customers 'online shopping satisfaction; they classified several factors into three main stages during shopping activities;

- Information search stage (information quality, website design, varied and low price),
- Purchase stage (transaction capability, rapid response time security privacy, convenient payment)
- Post-purchase stage (safe and rapid delivery, customer services), to satisfy customers in today's competitive electronic marketplace; online retailers must keep an eye close on delivery and customer service.

Figure II.1: The effects of customer satisfaction with the e-commerce system



Source: Journal of Theoretical and Applied Information Technology

2-SCM and customer satisfaction

2-1- Defining out-of-stock situations¹:

Many definitions and indicators describe out-of-stock situations. We can define stock-out as a situation in which the offer does not meet the demand, and we cancel the order. OOS differs from a backorder, a situation in which we hold and fulfill the order later after the replenishment cycle is over and inventories for the item are available again.

There are three different forms of OOS: classical, dual placement, and delisting out-of-stocks.

- Classical OOS: means that the item is not available on the labelled shelf-place.
- Dual placement OOS: occurs when the item can be found on the shelf but not on the other placement site (for example, a special place in the case of promotion) and vice versa.

¹http://www.scielo.br/scielo.php?script=sci_arttext&pid=S1806-48922017000400520&lng=en&tln=enconsulted on May the 24th at 10.50 A.M.

- Delisting OOS: appears when consumers cannot reach the desired item because store staff took it.

There is a similar approach to define out-of-stocks. It indicates that there are five specific OOS types. All representing the situation wherein a consumer who enters the store to buy a specific product leaves it without making the purchase. These types include:

- a. empty shelf - when the consumer cannot find the specific product on the marked shelf space;
- b. stock present, but no help available - when the consumer can see the product, but cannot reach it (because it is locked or placed on a high shelf), while there is no store staff help available;
- c. stock present, but no access - in this case, the consumer finds store staff to help, but they cannot get the product either (for instance, they do not have access to the location where the product is stocked);
- d. promo price mismatch - the consumer does not purchase because the price/offer in the store does not match that advertised;
- e. Any other reason (except lower expenses and the four reasons above) because of which the consumer decides to leave the store and not buy the desired product.

Classical OOS definitions are too myopic from the sellers' perspective because they do not cover the economic side of stock-outs. According to some authors, working definition of OOS should include elements such as OOS frequency, duration, an occurrence at a time of low or high store traffic, or importance of the item in the category. Thereby, along stock-out of an essential item during a rush hour should be much more critical to a retailer than a brief OOS for a minor item at a slow hour, during which there is no sales loss.

▪ **Drop shipping:**¹

It is a type of retail fulfillment method. Instead of a store stocking products, it purchases the products from a third party supplier, who ships products directly to the consumer.

For the store, this is a mostly hands-off process. The merchant does not have to order inventory or fulfill the orders in any way. Instead, the third party supplier takes care of the product itself.

Drop shipping is great for entrepreneurs because it does not demand as much as the traditional retail model. There is no need to open a brick-and-mortar store, pay overhead, and stock

¹<https://www.oberlo.com/ebooks/dropshipping/what-is-dropshipping> consulted on May the 29th at 6.00 P.M.

products. Instead, open an online storefront and buy wholesale from suppliers who already have products and warehouse space.

The merchant is mainly responsible for gaining customers and processing orders in drop shipping, meaning the need for an intermediary.

Millions of entrepreneurs flock to drop shipping because it requires less hassle and money to get started.

Of course, there are many drawbacks and advantages, and it is essential to look at them.

1. Benefits of Drops-hipping:

Drop shipping is easy to start; there is no need for a warehouse to store products or a team to handle them. No worries about stocking or shipping either.

2. Disadvantages of Drop-shipping:

This issue is especially problematic in drop shipping in a super-competitive niche. When there is fighting for customers' attention, to make the kind of profits.

Drop shipping can make order processing difficult. Drop shipping seems straightforward: the customer orders, you process, and your supplier fulfills. Moreover, for the most part, it is simple.

Each of the suppliers might use a different shipping solution, which presents a problem for both you and your customers. Costs can get high, and shipping multiple products can be problematic.

Different suppliers will also have different structures in place for processing and billing.

Drop shipping does not give much control. When it comes to stocking products, order fulfillment, and shipping, things are out of the e-store owner's hands entirely.

One of the disadvantages of drop shipping is that there is no much control over certain aspects of the drop shipping process. Suppliers should do everything right and work seamlessly. This lack of control can be off-putting to some entrepreneurs, but it usually is not a problem.

This means that when something goes wrong, it can be tricky to manage. When everything goes well, it is incredible.

Drop shipping makes customer service more challenging. This is another problem that happens when orders go wrong or suppliers fail. Because the e-supplier is just the storefront, it can be challenging to sort out orders.

2-2-The shipment process¹:

Shipping strategy: Some basics set a foundation for the rest of the shipping. Some critical decisions and steps make up your high-level shipping strategy.

- **Product weights.** To streamline the process, it is vital to measure and update the weight of each product. Having this information set up helps to get a good sense of total costs and pass along accurate prices to customers.
- **Choose the preferred packaging.** While there is more to say about what kind of packaging is right for the products, once selected it, add the information to.
- **Source the packaging.** Order free packaging or invest in branded packaging if that is part of the strategy.

2-2-1-Setting shipping rates and methods:

Before shipping the products, choose the pricing strategy for shipping. There are several conventional methods.

A- Offer Free Shipping:

Offering the customers, free shipping is one of the best ways to reduce shopping cart abandonment. However, shipping is never free. To make free shipping work:

1. Increase product prices to cover costs for shipping (customer pays).
2. Pay the full price of shipping out of margins (the owner pays).
3. Increase prices of products slightly to cover partial costs of shipping (the owner pays, and the customer pays).
4. Offer a discount code to specific customers for free shipping.

Additionally, offering free shipping on a minimum order amount is an option. This strategy can help offset the costs of shipping by helping to increase the average order size.

Charge Real-Time Carrier Rates:

Another effective shipping strategy is to charge real-time carrier rates for shipping. E-commerce platforms like Shopify integrate in real-time with various carriers like Canada Post

¹<https://www.shopify.com/blog/shipping-and-fulfillment#shipping-guide-1> consulted on May the 30th at 1.00 A.M.

(among others) to generate shipping options and live to price from various carriers. This allows customers to choose and pay for the specific service they want.

Charge a Flat Rate:

The last popular option is to offer flat rate shipping. The best practice for this option is to try and make sure that it will not drastically undercharge or overcharge the customers. Flat rate shipping works best when there is a standard product line of items that have similar sizes and weights. Flat rate shipping tends to become complicated and less effective in case of a wide variety of products with different sizes and weights.

Calculating shipping costs:

All shipping couriers base shipping rates on a variety of factors including:

- Package size
- Package weight
- Origin country
- Destination country

Also, additional shipping options like tracking and insurance.

It can be difficult to compare services precisely as they all offer slightly different options, and every business will have their unique variables.

1-Consider the margins:

To be successful at e-commerce, always keep an eye on the profit margins. Because shipping represents a significant expense for e-commerce merchants, if there is no research, it will end up by losing money on shipping.

2-Packaging and marketing:

As the world of e-commerce develops, so do the expectations of customers who buy online. Years ago, packaging and shipping was simply a way to receive a product purchased online, but more and more people are looking for shipping, packaging, and presentation as part of the e-commerce experience.

This expectation means that for many businesses, outside of selling commodities, competing effectively means going above and beyond, to impress customers and exceed their expectations by delivering an experience, not just a product.

In a world sealed factory bags and a black-and-white order receipt are standard, it is the small details like this that go a long way in making an excellent impression on customers.

Today, some of the most successful and exciting brands are those using packaging to delivery an unboxing experience that goes beyond the product.

A-Packaging options:

Before the shipment of the products, they need to be packaged for safe transport. There are a few standard options for packaging, including boxes or envelopes (padded or unpadded).

For example, poly mailers can be a great way to mail products that do not need much structure or cushioning, like clothing. Poly mailers offer multiple benefits. They are lightweight, which reduces the shipping costs, and they can adjust to different volumes and weights depending on what is included in the order. The same size of poly mailer could accommodate one pair of socks, or five, and no need to overpay on packaging weight or dimensions for the single pair.

Keep it light and small:

Because the cost of most shipping options is based on size and weight, it would be better to keep the packaging as small as possible. This will not only help in saving the shipping costs, but what the customer paid for shipping.

Lead Time¹: The amount of time that elapses between when a process starts and when it is completed. We sift through lead-time in manufacturing, supply chain management, and project management, as companies want to reduce the amount of time it takes to deliver products to the market. In business, lead-time minimization is customarily preferred.

Putting an effective ecommerce shipping strategy in place is one of the most impactful steps that we can take to grow the business online. While many brands start in e-commerce by taking a simplistic approach to shipping, like offering free shipping across the board. The most successful merchants use strategic shipping options to differentiate themselves from their

¹<https://chss.uonbi.ac.ke/sites/default/files/chss/JOB%20LOUIS%20MFWAYA%20D61-60153-2011.pdf> LEAD TIME MANAGEMENT AND CUSTOMER SATISFACTION IN THE TELECOMMUNICATION INDUSTRY IN KENYA BY JOB LOUIS MFWAYA

competition and increase margins. Establishing a shipping strategy for an online store ensures that everyone involved in this pipeline knows what is going on and their part in the process.¹

2.3-E-commerce Shipping Best Practices ²

- **Assemble the right team:** Every department in the organization has a job concerning making shipping work for the online store.
- **Set clear goals:** Define goals and measure against them.
- **Choose a shipping strategy:** There are four main options, and free shipping is not always the best.
- **Leap:** Implement and iterate. That is the only way to get better.

1- Assemble the right team.

Identifying the right people to help make this decision for the business is the first step. This requires bringing into the conversation the right stakeholders within the organization.

2- Define the goals for the shipping strategy.

Once we have identified the critical teams in the company who will need to be involved in establishing the strategy, we need to define what we want to accomplish with the e-commerce shipping strategy.

There are many areas of focus here, but the most typical are these.

2.3.1. E-commerce Shipping Strategy Goals:

- Increase conversions.
- Increase average order value.
- Expand the market or target audience.
- Decrease costs.
- Improve operational efficiency.

¹<https://www.bigcommerce.com/blog/ecommerce-shipping/>

² idem

a-Most Important Ecommerce Shipping Considerations:

1. Product size and weight: What is the difference in size and weight from the smallest, lightest SKUs to the largest, heaviest SKUs
2. Shipping destinations: Where are we shipping to — domestic or international?
3. Shipping options: What are the best shipping services or carriers for unique needs?

b- Product size and weight:

The first of these, product size and weight, is often the easiest to get the head around and has the most significant impact on the approach taken.

If the products are relatively uniform, then going with a per-item, zone-based approach, where the shipping price varies by the customer's location and not by product size or weight, works well.

For retailers with varying sizes and weights among the product set, getting rates directly from a carrier like UPS, DHL, Australia Post or others is a great way to ensure the rates offered to customers are the best possible ones.

c- Shipping Destinations:

Shipping destinations can be just as crucial as product dimensions and weight.

Again, in a more straightforward scenario like domestic shipping, a flat-rate or free shipping option works well.

The critical thing to focus on here is making sure the products have actual weights and dimensions so that the rate back from a carrier is as accurate as possible.

To do this, break the products into groups and focus on getting product weights and dimensions for the heaviest or largest 20% and the smallest or lightest 20%.

This will have the most significant effect on the shipping rates and offer the best return on investment.

As business grows, more unpredictable situations will be experienced. For that reason, it is a good idea to have a clearly outlined shipping and returns policy on the website that will help set expectations for customers and also guide the customer service team. Shipping and returns policies set customer expectations, protect the business from unreasonable customer requests, and can also be the difference between a profitable sale and a loss on order. There is no need to write up a contract page of legalese for the shipping, delivery, and refund policies. These can all be addressed in an FAQ.

Sort of information to include in the shipping and return policy FAQ:

-Shipping Lead Time

Explicitly state how long the shipment preparation takes before items are shipping. Unless we explicitly outline your shipment lead time, most consumers will assume the same or next-day shipment. When calculating shipment times, remember to account for weekends, holidays, and seasonal spikes.

-Click through rate for online business¹:

-Click-through rate, or CTR, is a digital marketing metric that measures the ratio of total impressions to clicks in search and display advertising, email marketing, and other online mediums. CTR can indicate the effectiveness of ad copy, meta data (titles & descriptions), and email subject lines. To determine CTR, divide total impressions by total clicks.

Though it varies in application by medium, a high click-through-rate indicates relevant content with engaging copy. CTR is usually dependent on some type of "teaser" text. Marketers constantly work to optimize ad copy and other teaser texts so that they entice readers to click through and learn more. Effective copy that increases click-through-rate can significantly impact a business' bottom line by driving more qualified traffic.

3-Selling Website

Nowadays, people are using the internet more and more and strive for a better, easy, and simplified life. A person who is surfing on the internet is a potential customer for many e-business owners. Thus, we are witnessing a significant growth of e-commerce, e-shops, and selling websites.

Undeniably, building an online store is an incredible way to make a profit and gain money. However, from where to start and what are the steps needed can be complicated.

In this upcoming section, we will emphasize on the significant elements and necessary columns that should appear on any online store.

3-1-A website has got a name

Where to get a domain name and how can we know that it is available:

To get a domain name, we should check its availability in a domain name seller website or the hosting provider website, by typing the domain name that we want to buy for the e-commerce

¹<https://www.bigcommerce.com/ecommerce-answers/what-is-ctr-defining-click-through-rate-for-online-businesses/> consulted on Jun the 10th, at 11.00 P.M.

website in a search bar, and then we will know if it is available and its price. Once we make the decision and buy the name, we should also buy a one-year subscription in a hosting provider company.

They will provide us after that with a control panel that will help us to manage our website files, emails and its security.

3-2-A home page¹:

Functions of a home page: the most crucial page of the entire website; it is supposed to attract the company's targets and encourage them to visit the website. It is the ID photo of the e-shop. By seeing it, the visitor must be able to recognize the website visited without reading the name. This page reflects the place and the activity of the company. It is vital to reinforce an entity's visual identity with a contextual identity using a slogan, phrase or words (baseline) in order to allow the user to understand what he can find on the website.

Show me your home page; I will tell you who you are...

A homepage is to:

- introduce the owner of the website
- inform (what does he propose? What is the added value);
- navigate (where and what is it used for?).

It is the gateway to the website. It helps the user to get the needed information quickly; the information should be clear. Do not forget that the homepage is, in general, the one on which visitors come back as soon as they get lost on the website. From the home page, the graphic charter and navigation logic adopted must be clear. The dimensions of the page are about 1024x768 pixels being the reference size, or can adapt to the user's screen based on these two standard sizes.

The homepage is both the showcase and the entrance to the website, an overview of the products and services offered and quick access to it. We can sum up its functions, essential that they are, as follows: welcoming visitors, giving an identity to the website, providing excellent visibility and understanding of all products and services.

The sales area is on the Internet, so do not forget that this "entry" must comply with particular constraints. Therefore, the size is limited to the screen and the space is virtual. It is impossible for visitors, customers, or prospects to shake hands with the seller, to walk in a radius or catch anything.

¹*e-marketing & e-commerce, 2nd edition, Pascal Lannoo and Corine Ankri p. 39.*

However, the offer is real, and the abstraction of any physical constraint offers many navigation possibilities that we must understand and control.

Avoid the so-called "transition" homepage. A page that shows up with a welcome message on which the user must click to access the content of the website. Even to determine the country of origin of the user, the transition page is no longer the only solution: place flags for example for the choice of language and, above all, ask the developer to use scripts to detect the origin of the visitors in order to redirect him to an appropriate homepage immediately¹.

a- Keys to a successful homepage²:

1- Tiered information:

If it is essential to define the information present on the page reception, it is also necessary to determine an order of importance within the page itself. The user will not see everything, especially not all at the same time. In fact, the look of a surfer arises first up and to the left of the screen.

Scroll or no scroll:

As a reminder, a scroll, or elevator, is to unroll vertically and horizontally in the scroll bar the contents of a web page. Ideally, for a homepage, we avoid the scroll. The information needed to understand the site must be visible at once. We admit that the user will seldom consult the content of a home page (only accessible employing a scroll).

2- An organized content:

If users have the opportunity to arrive quickly on a site, they can leave it quicker. That is what they do most often when what it is seen is not immediately understood.

One answer to that: structure, or even purify, the content of the homepage so that users will understand it effortlessly at first sight.

The homepage must be divided into separate areas so that visitors can find their way easily.

3- A page to seduce:

The home page is only a step towards the exposure of the market offer, not a goal in itself. Its effectiveness is ultimately measured by its ability to give what you want to discover what is behind the window. It must be attractive and answer the following questions: What are visitors looking for? What do we offer to them? What promises are we expressing?

¹*e-marketing & e-commerce, 2nd edition, Pascal Lannoo and Corine Ankri p. 41.*

²*Pascal Lannoo and Corine Ankri, Op-cit, p42.*

The page should not be too heavy, for a fast download, while delivering the message to identify the purpose of the site, its spirit and content. It must weigh at most between 50 and 70 KB. The less is often the best.

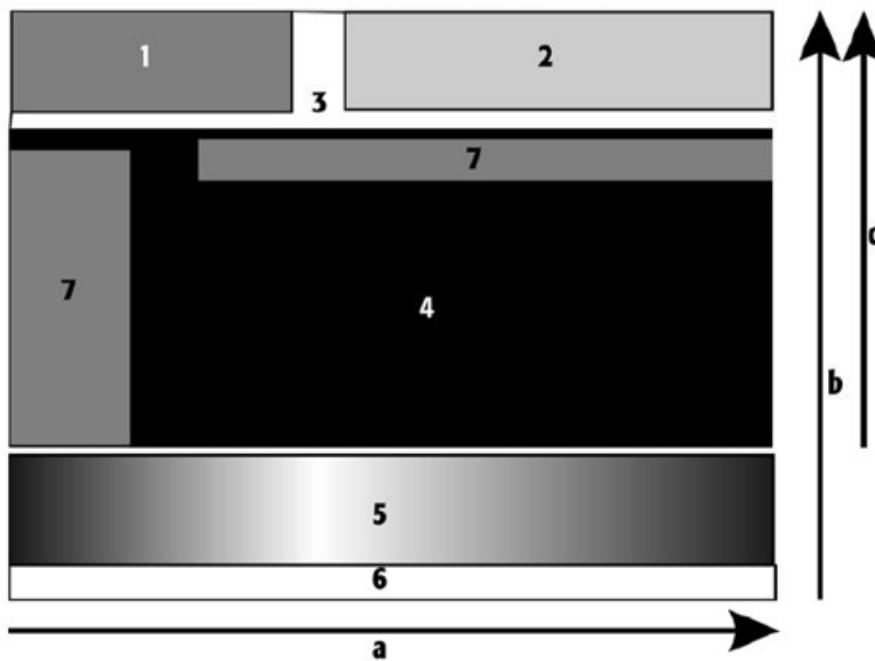
b- The recommended structure for an adequate and relevant home page¹:

When designing a home page, it is crucial to take into consideration the majority of existing websites to which the customers are familiar.

Web suppliers have already defined a certain number of codes, or even rules, which it is good to be aware in order to respond to the Internet users' behaviors.

Using it does not prevent to stand out from the competition; it facilitates the identification and the understanding of the site by all the visitors.

Figure II.2: Homepage structure



Source: e-marketing & e-commerce, 2nd edition, Pascal Lannoo, and Corine Ankri,p43

This pattern shows how the page splits into separate areas:

1. Logo or name of the website.
2. Location for advertising or self-promotion.
3. The slogan, introductory sentence ("baseline"), change of language, website map, contact.
4. Body of the text (optimal zone).
5. Text body (less restricted area).

¹ Ibid.

6. New or repeated links: legal information, contact, website map, textual display of navigation (access to topics).

7. The navigation bar or column according to the chosen layout, engine of research.

a. Standard width in pixels: 800 or 10241 (wide screen).

b. Standard height in pixels: 600 or 7681 (widescreen).

c. Height "captive": 450 pixels. It is in this space, defined from the top of the screen that the attention of the surfer is most captivated.

If we design the website in full page, in order to adjust the size of the user's screen to use all the space, the structure design of the page must be for standard use, namely 800x600 or 1024x768.

Footer: We often use this space by websites to resume in text mode only the most extensive menus on the rest of the page: help, customer account management, and navigation menus. We can also use it for the legal notice, copyright of the site, and general conditions of sale.

c- Website identification¹:

The logo, or at least the name of the website, must be on the top-left corner of the home page so the Internet users can see it immediately.

Present on all the site's pages, it allows us to return to the home page. It is a benchmark at all levels.

A textual part can accompany it: it is about the "baseline," that is the motto presenting the website in a few beautiful words, its "signature."

A bar, or line appear in this same zone, in height, but centered or placed on the right side, to provide additional links to "corporate" information, the website plan or the sites in other countries, essential services or regular recruitment and retention operations.

1- View purchasing Tools:

The purchasing tools are in the top in order to be identifiable immediately. For an efficient recognition, it is advisable to use explicit pictograms, including a shopping cart. We refer other tools as "Your account, Order Tracking, Help". These links are present in all the website pages.

2- All roads lead to your offer:

We consider a homepage as a navigation tool to access the content. It is mandatory to integrate a navigation bar allowing direct access to the main entry points of the site, horizontal or vertical.

¹Pascal Lannoo and Corine Ankri, *Op-cit*, p44.

Conversely, only the critical sections of the website must be accessible from the home page: do not overload by attempting to display the entire content of the site.

We arrange the headings horizontally, often in the form of tabs appearing at the top of the page, or vertically, listed on the left side. Whatever the chosen option, being vigilant about the heading's appearance order is the most important, as well as their number, so as to place first the most important or expected items, and not necessarily to follow relevant links between families of products or services, not to exceed a maximum of ten items. If we need to propose more than ten topics, and it is not possible to group them, we create a link to "other sections."

3- Search engine:

Invaluable navigation tool offering an alternative to the route offered by headings, the search engine must appear next to them: either in height in the case of horizontal navigation or on the side in the case of vertical navigation, preferably above the headings.

1-Page animation:

- A dynamic home page:

The content of the home page must evolve without leading to deep transformations. It must present the products offer or regularly updated and new services. For example, we do not leave for too long online a testimonial or press release whose date appears. We need to remember to update any products used in illustration that are rapidly becoming obsolete; technological products and products strong seasonality. The dynamism of the home page must be noticeable¹.

- A personalized welcome:

We can suggest that users sign up for the newsletter according to the importance granted to the latter. Proposing the inscription does not take an important place. We also suggest a link to add the site to favorites: nearly one out of every two users buy on a site added to the user's favorites. Some sites implement automatic personalization mechanisms. We greet visitors by a personalized welcome message, for example: "Welcome + name registered by the customer." We can also invite new visitors to create their account, to subscribe to the newsletter and discover the site, possibly through a section entitled: "Guided tour."

Each user can then customize the home page of the website according to his needs and expectations.

¹*Pascal Lannoo and Corine Ankri, Op-cit, p46.*

The website does it for the visitor according to his navigation and his purchases. Thus, the server remembers the subjects consulted by the user's computer. During a subsequent visit, the server will introduce the customer directly, on the first page, to the latest information about these topics.

We also use this system to target the displayed auto promotions¹.

To sum up, the eight golden rules²:

- Place the topics at the top or left, so that they are visible immediately.
- Place the purchase tools (cart, order tracking, after-sales service) in height to facilitate access.
- Plan a central space to promote the news: a site without animation is a site that lives its last days.
- Adopt a sober and straightforward presentation.
- Communicate about services and values
- The graphics and editorial environment of the website must be faithful to the positioning of the website. It must also be scalable.
- The website must be lightweight for a fast download.
- Add a link to the legal information.

2- Graphic charter:

According to a Canadian study, a surfer can decide in less than 50 milliseconds if he likes or not the website that he sees from an aesthetic point of view. The first impression is, therefore significant; it determines the choice of the user, to continue or not the visit, as well as the feeling towards the website.³

Before defining the graphic charter ("look & feel"), which constitutes the identity of a website, it is necessary to link it to the company that it represents. In the same way as business cards, letterhead, invoices and logo.

Look & feel: A website transmits a message about the company: it is the media of identity. Designing a graphic charter must be subordinate, while remaining creative, to economic efficiency and the representation of the commercial vocation of the site.

The content and the aesthetics of the site must reflect the characteristics inherent to product range offers, quality of service and pricing policy.

The website design, as explained above, depends on the type of services that we offer, the added value towards the competition and, ultimately, positioning.

¹*Pascal Lannoo and Corine Ankri, Op-cit, p47.*

²*Ibid.*

³*BBC, 16 janvier 2006.*

Both the design and the identity of the website are inseparable and built simultaneously with the creation of the graphic charter, broadcast messages, and, of course, the arrangement of all the pages that constitute it.

The graphic charter defines the set of graphical and typological rules.

Using only colors to highlight the essential elements is insufficient. Avoid using too much different colors on the same page.

Background color: avoid patterns and opt for a transparent background, such as white. It gives an airy aspect to the entire page and ensures better readability.

The choice of the dominant color: the choice of colors is not by chance; it must respect the rules. We generally accept that colors have distinct effects on those who perceive them.

Warm colors or cool colors: warm colors, such as red, yellow, orange, accelerate the movement. They appear to be "moving forward" in the page. Cool colors, such as blue, green, purple, encourage calm, reflection, relaxation. They seem to "move" towards the bottom of the page¹.

G- Textual elements²:

A customer can see a page very quickly and often without reading the text. The impact of words is heavy. Both design and colors, contribute obviously in creating an overall impression.

1- Keywords:

The speed with which we browse pages on the Internet induces a remarkable reading mode. Internet users get a brief idea in few moments and, depending on what they see, whether they leave immediately or extend their visit. If the graphics and visual elements are essential, then the understanding will be determining. It's all about the choice of words:

-The layout of elements: We must systemically display a title to allow users to find their way quickly when they arrive on a page.

- Choice of the font: Readability is the most critical criterion in the choice of the font and its size. Avoid italics and do not mix more than two or three fonts.

- Glossary and keywords: The choice of terms used on the site must be according to the public to whom we address our offer³.

To sum up, for a useful home page, we must prioritize the information and titles. We need to prepare a readable font, and explicit terms. The text and the website's identity must be clear.

¹*e-marketing & e-commerce, 2nd edition, Pascal Lannoo and Corine Ankri p,50.*

²*Ibid, p53.*

³*Pascal Lannoo and Corine Ankri, Op-cit, p54.*

Conclusion:

This chapter allowed us to have an accurate picture with the e-commerce websites structure and most relevant elements. Besides, we do now have a clear idea about the customer satisfaction without neglecting the importance of scm within an e-commerce website.

Chapter III:
Empirical study

Introduction:

In this chapter, we will present the host entity, Clozer Tech & Consulting, as we will do a qualitative and quantitative research about the impact of SCM on the customer satisfaction, focusing on one of the company's projects; a new e-commerce website. All this, in order to test our study's hypotheses.

This chapter will include:

- A global view about the situation of e-commerce in Algeria;
- The presentation of the host entity;
- The methodological framework of the study;
- Case study analysis.

1 State of Affairs of e-commerce in Algeria:

The development of ICTs marked the last decades (information and communication technologies), and especially the Internet.

This technological development caused profound changes in the business environment and the birth of a new economy or a new market called "virtual market."

The fast growth characterized this new business across the Internet and touched the essential sectors of the economy: distribution, sector banking, tourism, and hotel sector.

Henceforth, the economic sector's potential influence the chances of developing e-commerce to bring competitive advantages to the various economic actors¹.

In the upcoming section, we will talk about the current situation of e-commerce in Algeria.

1.1. Reality of e-commerce in Algeria

E-commerce involves the exchange between two parties with the use of a network. In practice, the Internet is the ultimate support network for e-commerce.

According to Mr. OuldMoussa, e-commerce "*is still at the stage of imagination in Algeria. It does not represent anything in terms of real activity*". For this economist, "*we cannot practice e-commerce in an informal market, invaded by anarchy and in the absence of transparency,*" in an environment "*which does not favor or even prevent the emergence of this type of trade.*"

It is in these terms that he summarizes his point of view concerning the commercial market and its evolution in our country: "*it is still too early to talk about the evolution of this market since it is not yet seriously launched.*"

¹LE COMMERCE ELECTRONIQUE EN ALGERIE: VERS DE NOUVELLES FORMES DE VENTE EN LIGNE, AbdelouahabMakhloufiMatoukBelattaf Université de Béjaïa, Algérieconsulted on may the 28th at 2.30 PM

According to Mr. OuldMoussa, the new emerging websites "*do not do e-commerce, but practice a form of informal commerce; those are information and advertising sites for commercial transactions through the internet.*" He justifies his opinion by the lack of transparency and the legal framework of these transactions. He continues: "*e-commerce cannot be exercised in such a market. In our country, if the check is not yet generalized, what about other means of electronic payment?*"¹

1-1-1- Sales forms:

According to an interview conducted by FaouziaAbabsa, a journalist in a bi-monthly economic L'Eco with DjamelBendjaber, e-commerce practiced in Algeria does not meet the essential criteria of accurate e-commerce as we indicate it and this is simply due to the absence of electronic transactions. For the latter, it is much more than an electronic catalog; this does not prevent our positioning because Algeria is in the preparation phase while waiting for the legislation relating to this form of sale. In addition to this, it is not the legislation that matters the most. But it is instead the payment means².

It is true that e-payment is not operational yet in Algeria, but this will not prevent Algerians from practicing e-commerce.

Many e-shops are active in Algeria, and they are using different means of payment. For instance, Jumia Algeria (www.jumia.dz) uses the delivery payment.

A customer logs into his account, consults the offers, make an order, and confirms it. Once he receives his order, the customer pays the shipping fees, and the amount of the items ordered. He pays cash the delivery agent who is Jumia's employee.

In case of return or any other problem, we can refund the customer via a "refund voucher" or a bank deposit. Hence, he will be able to use another type of payment, which is the voucher.

Other e-suppliers ask for payment before delivering the order. Amira RIAA's Collection is an example. For this brand, there is no operational website. Physical stores and corners exist in some wilayas in addition to the Instagram account, which is mainly the brand's vitrine. Followers see the available items and make an order via the Facebook fan page of the same brand. Once the order confirmed, customers have to pay the whole amount, the item price plus the shipping fees, and in this case, it is the EMS service fees (orders delivered via the post).

¹AbdelouahabMakhloufiMatoukBelattaf, *op-cit.*

²*Ibid.*

The examples mentioned above are few from the current actors of electronic commerce in Algeria. Many young entrepreneurs, influencers, public figures are launching their brands and promoting for them online but only few of them who are having a real status of merchants.

Thus, the perspective of electronic commerce changes from a person to another. For some, selling online by creating an account on Instagram and posting photos is e-commerce. For others, having a website created by a freelancer, and receiving one to two orders per day is commerce without even paying any tax.

All of this can puzzle our thinking and push us to ask questions. What about the legal side? Why physical stores and merchants do have commercial registers, pay taxes and feeds whereas marginalize this category? Is there any entity that follows these actions? Which category of the Algerian society is adapting the most this wave?

1-1-2-Algerian Internet users' profile:

IMMAR Research and Consultancy had established a study, called “Les Algériens à l’heure du digital” in April 2018.

The survey was realized by CATI (telephone survey), every day, and for two weeks, they interviewed a sample of 200 individuals of 15 years old and more, and this from April the 16th to April the 30th, 2018.

When the company first tackled the subject, not less than 3022 people had participated in the study. Two weeks of collecting information about the user of the web: the profile, daily internet, and media use.

The study tends to highlight these structuring considerations for the future of the ICT market in Algeria.

We will try to focus on the questions of the profile of the Algerian surfer and the Internet buyer.

49.2% of the surveyed population is female, and 50.8% is male. Their age varies from 15 to more than 55, 30% of them are between 15 to 24, 25% from 25 to 34, 18% from 35 to 44, 12% from 45 to 54 and 15% more than 55 years old.

They come from different environments; 19% of them are from the rural milieu and the rest from the urban one.

They come from different regions; 39% of them are from the center of Algeria, 22% from the west, 30% from the east and 9% from the south¹.

¹IMMAR 2018, *Les Algériens ç l’heure du digital, Avril 2018.*

A-Internet users' profile:

We could notice that 43% of Internet users are female, whereas 57% of them are male. 14% of them are from a rural environment, and the other 86% are from an urban one. 42% of them are aged between 15 to 24, 29% between 25 to 34, 16% between 35 to 44, 7% between 45 to 54 and 6% are more than 55 years old¹.

Concerning the frequency and last use of the Internet, 66% of the interviewed population during the last twelve months (before the survey) use the Internet many times a day. 13% of them use it once a day, 12.1% use Internet many times a week, 3.3% use the Internet at least once a week and only less than 1% get connected less than once a month².

88% of the Internet users use their smartphones to get connected while the rest use whether the desktop computer, laptop, or tablet³.

44% of the Internet users log in via ADSL, 39% using the 3rdG, 20% 4G, 7% 4Glte, and only 1% using the 2G.

82% of them log in from their houses and the rest of the Internet users whether from their workplace, a public Wi-Fi or other⁴.

In April 2018, the average time dedicated to Internet use per Algerian was 230 minutes. With 261 minutes for men, 188 for women, 231 minutes in the urban environment and 219 minutes in the rural one⁵.

B-Algerian Internet users' relationship with e-commerce:

According to IMMAR Media's study, 44% of the Algerian is convinced to buy online, and 60% of them did shop on the Internet.

-Penetration of online shopping:

74% of the population said No to the online shopping penetration, while 26% of them said yes.

1-1-3-Forms of payment:

There are several forms of payment in Algeria: the CCP mandate, payment by bank cheque, payment on delivery and payment by PayPal in euro. Each payment method has its specificities. We can use the payment by CCP at the post office and in all Algerian posts.

¹Idem

²Idem.

³Idem.

⁴Idem.

⁵IMMAR 2018, *Les Algériens ç l'heure du digital, Avril 2018.*

According to an interview conducted by Eco16 with Nawel Benkritli, Executive Director of the "SATIM17", all online sales sites active in the Algerian market use alternative means to electronic payment.

SATIM subsidiary of eight banks (BADR, BDL, BEA, BNA, CPA, CNEP, CNMA, and ELBARAKA) is in charge of the management of electronic banking in Algeria.

Through the investigation of Mr. Hamza (CEO of eBay.dz) on the means of electronic payment, our country witnesses a remarkable delay in terms of electronic banking. According to the figures of the general manager, besides the private networks such as the Algerian post services, the banking network today contains only 900,000 CIB holders for withdrawal and payment.

Even for the purchase of airline tickets, trains, hotel reservations, bill payment (electricity, gas, tel.) we notice a lack of means of treatment and online payment¹.

1-2-Ecommerce future in Algeria

Algeria is one of the emerging countries in the era of the market economy. With the gradual liberalization of its market, it attracts more and more foreign investors, especially in the energy sector. However, today, FDI is starting to expand in other areas: tourism, industry, and telecoms. Concerning telecoms or ICT, the sector has witnessed a definite improvement. This should not obscure the "Algerian delay" in ICT and their introduction into the economy. The situation is urgent. We need to implement a strategy to integrate the information society because today, we are building a new economy on the ICTs. The transition to the information economy and e-commerce will be a real driver of recovery².

E-commerce in Algeria: an opportunity to invest in

Perceived as a particular form of commerce in general, we can link the opportunity e-commerce in Algeria to the virtues of economic openness on growth highlighted by numerous works. In addition to its financial impact through the balance of payments, trade is then an essential vector of technology transfer.

However, the main argument for a positive correlation between trade and economic growth is to combine greater openness and, more open competition in international markets. With increased efficiency, at the same time under the influence of better resource allocation in the

¹*AbdelouahabMakhloufiMatoukBelattaf Université de Béjaïa, Algérie LE COMMERCE ELECTRONIQUE EN ALGERIE: VERS DE NOUVELLES FORMES DE VENTE EN LIGNE.*

²*AbdelouahabMakhloufiMatoukBelattaf Université de Béjaïa, Algérie LE COMMERCE ELECTRONIQUE EN ALGERIE: VERS DE NOUVELLES FORMES DE VENTE EN LIGNE.*

economic arena and under competitive pressures and better use of resources at the enterprise level.

The opportunity to invest in e-commerce in Algeria, while contributing to the reinforcement of this competitiveness effect, is about the international one. It can make it possible to reproduce quite easily the same scheme of emulation of transactional efficiency within a country. However, it does not seem necessary to dwell more at length on the relationship between trade and development¹.

1-3-Law of 05-18

Electronic commerce has grown in Algeria well before the adoption of the e-commerce law; several activities sprouted up on the internet. Now, the web vendors wishing to sell their products online must host their websites in Algeria and register in the Trade Register (CNRC), as stipulated in the law recently entered into force.

All the information of this section are extracted from the Official Journal of the People's Democratic Republic of Algeria, Law of May the 16th, 2018 corresponding to Shaabane, the 30th, 1439.

1-3-1- General Provisions:

The Algerian law of commercial electronic transaction is applicable when one of the parties has the Algerian nationality, resides legally in Algeria, a legal entity governed by the Algerian law or if the contract is concluded or executed in Algeria.

The law forbids the use of electronic communication for games of chance, betting transactions, lotteries, alcoholic beverages, tobacco, pharmaceutical products, goods and services prohibited, products violating the intellectual, electronic or commercial property.

1-3-2-Electronic commerce practices:

The e-commerce activity is subject to registration, as the case may be, in the commercial register or the Register of Crafts and Trades and Publication of a website or a web page hosted in Algeria with an extension “. com.dz”.

The supplier must equip the website with tools allowing its authentication.

The exercise of the activity of e-commerce requires a deposit of the domain name at the National Center of Register of Commerce. Thereupon, they share and publish the national e-suppliers file with the e-consumers.

¹*Idem.*

The e-supplier must submit the offer in a visible, apparent, and understandable way. It must include the tax identification number, the physical and electronic addresses as well as the telephone number of the e-supplier. It should also include the commercial register number, or the number of the professional artisan card, the nature and characteristics. The price of the goods or services offered in all taxes included, the state of availability of the good or service, the terms, fees and delivery periods, the general conditions of sale, the conditions of commercial warranty and after sales service, the pricing method, payment terms and procedures, the terms of the contract termination must appear too.

The electronic contract must include the detailed specifications of the goods or services, the terms, and conditions of delivery. As well as the warranty and after-sales service conditions, the terms of termination of the electronic contract, payment and conditions of return, the procedures for handling complaints and the terms and conditions of pre-ordering.

We cannot pay the pre-order unless the product is available in stock.

As soon as the product is available, we transform tacitly the pre-order into a validated order. Without prejudice to the right of the e-consumer to the repair, the e-supplier must refund the price, if the costumer had paid before the availability of the product in stock.

The e-consumer must pay the agreed price in the electronic contract right after we conclude it. The e-supplier must establish an invoice conform to the legislation, and the e-consumer can ask for a paper form of the invoice.

When the e-supplier delivers a product or a service to the e-consumer, knowing that he did not order it, the e-supplier cannot impose to the e-consumer to pay.

In the case of non-respect of the delivery schedules, the e-consumer can ship the product as it is, in four working days, starting from the delivery date.

In this case, the e-supplier must pay the fees of the return process in fifteen days starting from the reception day.

The e-supplier should pick up his items in case of wrong item or damaged product. The e-consumer has to send the order in its packaging in four days starting from the delivery day.

The e-supplier should deliver a new order conform to the demand of the customer, or repair the product, or change the product by another one or cancel the order with a refund.

The refund process must be in fifteen days starting from the day of the reception of the items.

The e-supplier should not submit an order while it is out of stock. The payment of electronic transactions is whether through remote payment means or cash on delivery.

2-Presentation of the entity

With the advent of technologies and the increase of the customers' requirements, enterprises are in the obligation to follow the flow and be on the top of the customers' expectations.

In order to bring solutions and deliver a better experience to consumers and customers of the different domains, many IT services companies are taking shape and trying to bring an added value.

This phenomenon is emerging in Algeria as well; different start-ups led by young people from different backgrounds propose their services to both professionals and particulars.

Clozer Tech & Consulting is one of these start-ups; it is an IT services company. It is created in January 2018 by a talented young entrepreneur. The founder and current CEO of the entity, Mr. BENTAIBA Abderrahmane is a computer science engineer, specialized in information systems and web technologies, graduated from the national high school of computing sciences of Algiers (ESI Alger ex- INI).

Clozer Tech & Consulting is born with a different innovation comparing to the other IT and consulting agencies; it consists of developing new consulting methods and upgrading the Business 2 Customer relationship while being "close," hence the name of the company "Clozer."

2-1-Activities and values

Clozer Tech & Consulting activities are various; it is at the same time, technical studies and consulting office (IT services consulting) and a communication agency (digital communication).

Clozer Tech & Consulting activities rely on the design and realization of digital solutions for several sectors of activity such as; e-commerce, tourism, and events industry.

To learn, to collaborate and to innovate are the principal values of this start-up. Their mission is to assist the companies and business holders in achieving their objectives through the digital and their mission is to deliver the best and adequate assistance to the entities that trust them and their partners by dint of their new and innovative consulting methods.

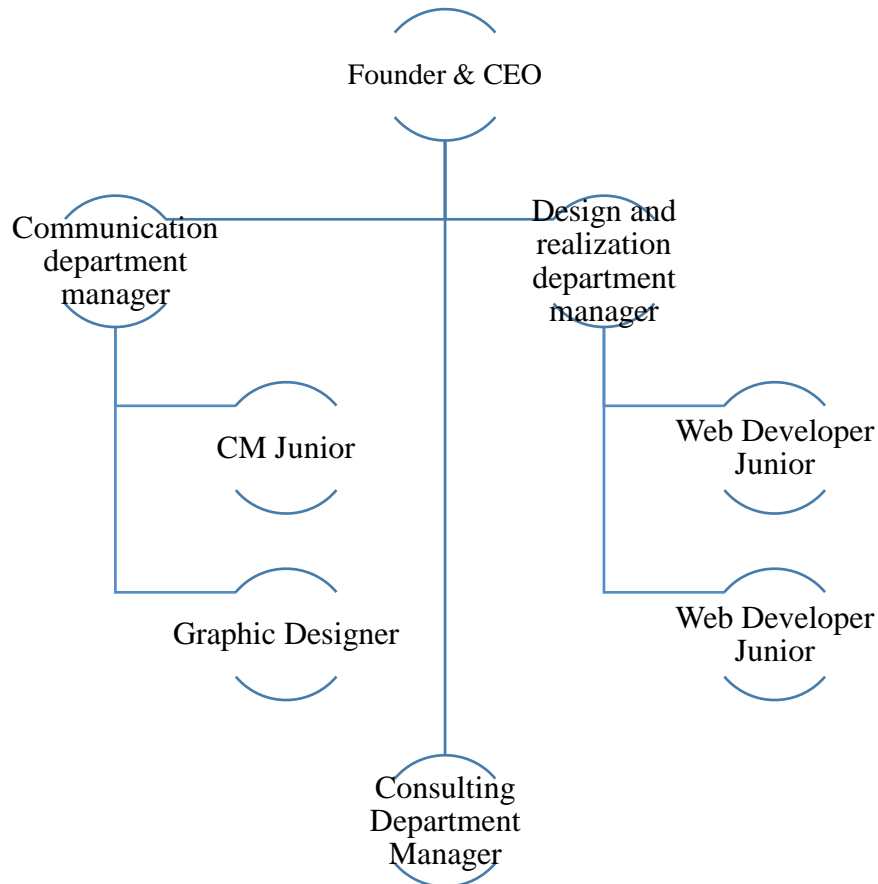
2-2-Organizational chart and structure

Clozer Tech & Consulting has currently skilled personnel composed of eight talented young people; the majority has a computing sciences background working in different departments:

- ◆ Consulting department:

- Follow up the information system consulting activities
- Companies training in digital
- ◆ Design and realization department:
 - Realize the clients' projects (websites and mobile applications).
 - Development and realization of new applications (cloud applications).
 - Website redesign.
 - Clients' applications maintenance.
- ◆ Communication department:
 - The graphic conception of communication mediums
 - Community management
 - Tracking of the communication strategies of the companies.

Figure III.1: Organizational chart of Clozer Tech & Consulting



Source: Internal documentation

3-The methodological framework of the study

3-1- Presentation of the methodology:

The main objective is to know how does SCM satisfy the current and potential customer within an e-commerce website. To detect what is mandatory in any selling website structure and system. What must appear, and to be aware of what is useless and may cause the loss of a customer.

For this, we opted for two methods, qualitative and quantitative one. For the qualitative method, we had the opportunity to organize a focus group within the entity; we contacted six customers and allowed them to share with us their thoughts and complaints.

Focus groups are group discussions conducted with the participation of 7 to 12 people to capture their experiences and views regarding specific issues closely related to the research questions. Focus groups data collection method is most suitable for types of studies where we need to obtain multiple perspectives regarding the same problem. The moderator responsible for ensuring that group discussions remain focused on the research area and leads the group.¹

For the quantitative one, we realized a questionnaire on Google forms and distributed it via social networks. We have a population of 345 individuals, and they are Algerian internet users. To reach this number, we had to target 400 persons. We approached them through the different social networks channels and we had 86.25% as a survey rate.

Our sampling method for this study was the convenience sampling. By definition, the Convenience sampling is perhaps the easiest method of sampling, because we select participants based on their availability and willingness to take part².

A sample survey is quantitative research. These variables can be metric or non-metric. Correctly, we analyze the answers obtained through closed-ended questions with multiple choice answer options using quantitative methods, and they may involve pie charts, bar charts, and percentages. Answers obtained to open-ended questionnaire questions are analyzed using qualitative methods, and they involve discussions and critical analyses without the use of numbers and calculations.³

¹<https://research-methodology.net/research-methods/qualitative-research/focus-group/> consulted on May the 20th at 9.00 P.M

²<https://www.healthknowledge.org.uk/public-health-textbook/research-methods/1a-epidemiology/methods-of-sampling-population> consulted on June the 9th at 9.27 A.M.

³<https://research-methodology.net/research-methods/survey-method/questionnaires-2/> consulted on May the 20th at 9.30P.M

3-2- Choice of the methodology

In the context of our study, and since our host entity is a consulting agency specialized in information systems and communication that offers solutions to the different problems and issues and provide its customers with innovative and personalized offers, we found it adequate to discuss our topic through two different methods.

In order to know better the behavior of a determined population, the most appropriate approach would be observing the whole individuals. Also, to proceed precisely the same way is often impossible; the size of the study population and its geographical dispersion are one of the constraints that we may face. It will take much time and requires the investment of essential resources. Hence, the law of probabilities are here and allow us to take a sample of the population under some conditions and establish our study, and this is what we did.

For the first method, which is purely qualitative since it is a focus group. We could easily manage it, we had the opportunity to contact a group of seven persons, they are all current customers, and they have all at least bought online and placed orders on different e-commerce websites. We had the privilege to contact them personally and interact with them. We could gather detailed information and have answers to our questions.

In contrast to the second method, which is a quantitative one, we did not focus only on the current customer but on the potential one too (capable of being or becoming a future purchaser). We opted for an online survey so we can reach the maximum of persons, without targeting the ones who had already made an online purchase.

All this, in order to come up with consistent statements for the questions elaborated in the upstream of our study. As a reminder, we have set previously the upcoming hypotheses:

- **H1:** The stock rotation influences favorably on customer satisfaction
- **H2:** The tracking of the shipping process influences positively on customer

Satisfaction

- **H3:** The good master of e-reverse logistics contributes to the reliability of the website.

3-3- The sample selection:

In the context of our study, which is divided into two parts, we have opted for:

- The interrogation number of seven persons under the focus group approach. They are all Algerian Internet users and have made an online purchase. However, their profiles are different, some of them did not have any problem within their journey as e-consumers, others had an awful experience with the return process, and refund and others are known as top customers with important order history.
- The launch of an online survey on social media, a population of 345 individuals from different profiles and backgrounds, between those who had made an online purchase before and those who did not.

3-4- Conduct of the survey through the focus group

3-4-1- Preparation for the focus group:

We started by setting up our goals, we pointed out the objective of the gathering and what do we want to find out. This goal setting provided us with a roadmap for the planning for our focus group.

We then defined our targeted audience and fixed the criteria (loyal customer, new customer, a customer with refund problems and bad experience).

3-4-2- Recruitment of the focus group participants:

We chose the participants of our focus group carefully. Like mentioned above, all of them have at least bought online once and are in different situations. We proceeded this way so we can have a representative sample.

We contacted Mr. Athmane, Mr. Wahib, Mr. Ahmed, Ms. Nouha, Ms. Yamina, Ms. Hiba, and Ms. Mordjene personally; we called them and asked for their availability. Once they accepted our invitation, we sent them an online invitation by email and fixed the day and the hour that were the most suitable for everyone. It was a Thursday, after the working hours (at 5.30 P.M). We prepared the venue, arranged the room, and brought some snacks and drinks for the participants. Only six of them came, Ms. Hiba did not show up. We also prepared vouchers of 2000 DZD for the participants as a gift.

We prepared a document on Google Sheet with the names of the participant, their phone numbers, emails, and a space for their answers to our questions (ANNEXE1) so we can easily take notes. The questions were asked in both languages; French and Arabic.

3-4-3- Questions design: APPENDIX I

We wanted to stimulate a fruitful conversation with our participant, so we formulated open-ended questions. We wanted to see our participants talking in order to have their feedbacks and outputs so we can use them as inputs for our study. Here are the questions:

- ✓ How many times a month do you make an online purchase?
- ✓ What pushes you to place an online order?
- ✓ According to you, what are the crucial elements that must appear on any online shopping platform?
- ✓ What will you do if you receive an email telling you that the order that you placed and was confirmed is canceled due to an out of stock?
- ✓ What do you think about the process tracking of your order?
- ✓ What measures will you take if you face a delivery delay?
- ✓ In case of wrong or damaged item delivery, how will you proceed?
- ✓ Moreover, finally, what will you do if the e-supplier asks from you to drop-off the items received in order to get a refund?

3-4-4- Results and analysis of the quantitative study:

We will now present the different answers and feedback that we had from our participants. We recorded the answers, and we were taking notes simultaneously.

We summarized the participants' answers and split them into three principal axes:

a. The out of stock effects on customer satisfaction:

The participants that we had are familiar with online shopping, they make one online purchase a month in average, and what does motivate them the most to do it is the ability to place an order anytime and everywhere.

In addition to this, having an extensive range of items, with different sizes and color, being able to compare between the products and the prices and placing more than one item in an order pushes them to buy.

Thus, it is imperative for them to be aware of the article's price, the shipping fees, the delivery date, and of course, the conditions of the operation.

For some of them, having an idea about the available quantity in stock of the items is mandatory; it may motivate them to buy. For others, it is optional. The most important thing for them is to receive what they have ordered on time.

When it came to the out of stock section, some of the participants showed their anger and emphasized a lot on this point. They do not find it professional at all. They see in that kind of emails and messages (usually sent to inform that the order is canceled) a form of disrespect toward the customer. Two persons find it okay if it happens once a journey and can place another order once it is available. The others affirm their dissatisfaction, and they might feel insecure and never trust the website again.

b. The tracking of the shipment process:

By asking this question, voices got calm, and the participants expressed their satisfaction toward this option. They find it professional and kind from the e-supplier.

One of them corroborated this by giving an example, for him, if he was looking for an item and did not find it anywhere else, he will be impatient to receive it. So knowing in which phase the order is (confirmation, preparation, and shipment) will appease him and let him feel more comfortable with the e-supplier. He will trust him and come back later for a new purchase.

Moreover, another participant added to that, the importance of indicating the exact date and time of the delivery so they will get prepared, and make sure not to miss the appointment with the delivery agent.

We barely mentioned the delivery delay, when one of the participants interrupted us and said, *“We are in Algeria, we are not expecting to be delivered within 24 hours.”* The others just agreed with him.

For the participants, it is okay if the delivery witnesses a delay of 1 to 2 days, but not a delay of one week. They do not accept this unless they are notified via emails or SMS.

Otherwise, if it goes beyond two days and they do not have any update about it, there are high chances of order cancellation on the delivery day, and this may lead to the severance of the relationship.

One participant added at the end of this section, *“It will be great if we keep receiving post-delivery notifications, such as information about the new products and items, discounts...”*

c. Reverse logistics and its contribution to customer loyalty:

All of the participants understand the fact that an accident may occur during the delivery, and some products may get damaged (especially the fragile ones). They affirm that if they received a damaged product for any reason, they will directly contact the e-supplier and, ask for a new product.

However, in case of a wrong product, they will indeed contact the supplier, but this time they will ask for a discount for the inconvenience and return the product.

Moreover, if the e-supplier asks the customers to drop-off the item that they aim to return, he needs to give them an apology voucher. Because for them, wrong and damaged products should be picked-up, not dropped-off.

It also depends on the value; if it is cheap, they may keep it and forget about it. However, in case the item is valuable and heavy, they will follow the procedures, if they find them too complicated; they will ask for a refund and never come back to the website.

3-4-5- Qualitative analysis summary:

We derive from what we mentioned up above that the e-customer satisfaction does not depend on the quality of the product only or the price, but it requires proper management of the different flows.

Starting from the information flow, we should inform customers about everything. The website should be clear for them as well as the conditions. They also need to be aware of the stock rotation of the item they are interested in. They must have an idea about the availability of the articles.

To deliver the information from the upstream to the downstream of the whole supply chain is mandatory. Before buying, customers need to see the price, sales conditions, and return procedures, while purchasing their right is to check if the product is available. Also, when the order is placed and confirmed, they should follow their order and get notified.

Talking about the environmental flows, reasonable control of reverse logistics is crucial. The order and its receiver should be followed. The post-delivery tracking has significant importance, and customers need to fill that they are important, and their experience does not end with the delivery.

3-5- Conduct of the survey through the questionnaire

3-5-1- Implementation of the questionnaire:

The questionnaire is a set of questions for obtaining statistically useful or personal information from individuals.¹

It helps us in collecting data and use it for our study. The data collected are easily measurable.

¹<https://www.merriam-webster.com/dictionary/questionnaire> consulted on May the 31th, at 11.13 P.M.

We have used Google Forms to develop our questionnaire; we shared it on social networks on Tuesday, May the 21st, 2019 at 7.00 P.M. and on Sunday the 26th we had reached 345 responses (5 days).

We have used the close-ended questions. This kind of questions asks the respondent to choose from a distinct set of pre-defined responses, such as "yes/no" or among set multiple choice questions. They come in a multitude of forms.¹

Types of close-ended questions used in our study²:

- Dichotomous question: These close-ended questions are indicative questions that can be answered either in one or two ways, "yes/no" or "true/false."
 - Multiple choice question: A multiple choice close-ended questions are easy and flexible and help us obtain data that is clean and easy to analyze. It typically consists of the question-stem, correct answer, closest alternative, and distractors.
1. Rating scale multiple-choice questions: These close-ended questions require the respondents to assign a fixed value in the response, usually numeric. The number of scale points depends on what sort of questions a researcher is asking.
 2. Checklist type multiple choice questions: This type of closed-ended question expects the respondents to make choices from the many options that have been stated, the respondent can choose one or more options depending on the question being asked.

We have opted for this type of question to gather actionable and quantitative data.

3-5-2- Structure of the questionnaire: APPENDIX 2

Our questionnaire started with a brief explanation of the context of our study in order to inform the respondents that we will use their answers for our thesis and nothing else.

However, we can divide our questionnaire into four different blocks:

- Part one: It consists of a few questions that help us in the identification of the respondent, such as (sex, age, educational level, job, and familiarity with e-commerce websites).
- Part two: It represents the set of questions related to the stock rotation.
- Part three: It represents the set of questions related to the tracking of the shipment process.

¹<https://www.questionpro.com/close-ended-questions.html> consulted on May the 31th at 11.31 P.M.

²<https://www.questionpro.com/close-ended-questions.html> consulted on May the 31th at 11.31 P.M.

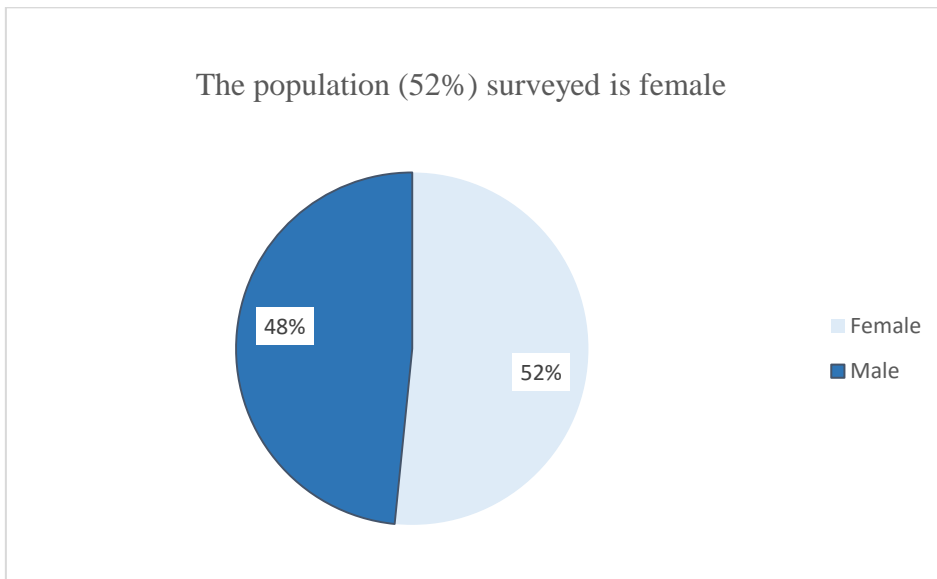
- Part four: It represents the set of questions related to reverse logistics.

4- Case study analysis :

Our figures derive from Excel, based on the results that we extracted from Google Forms.

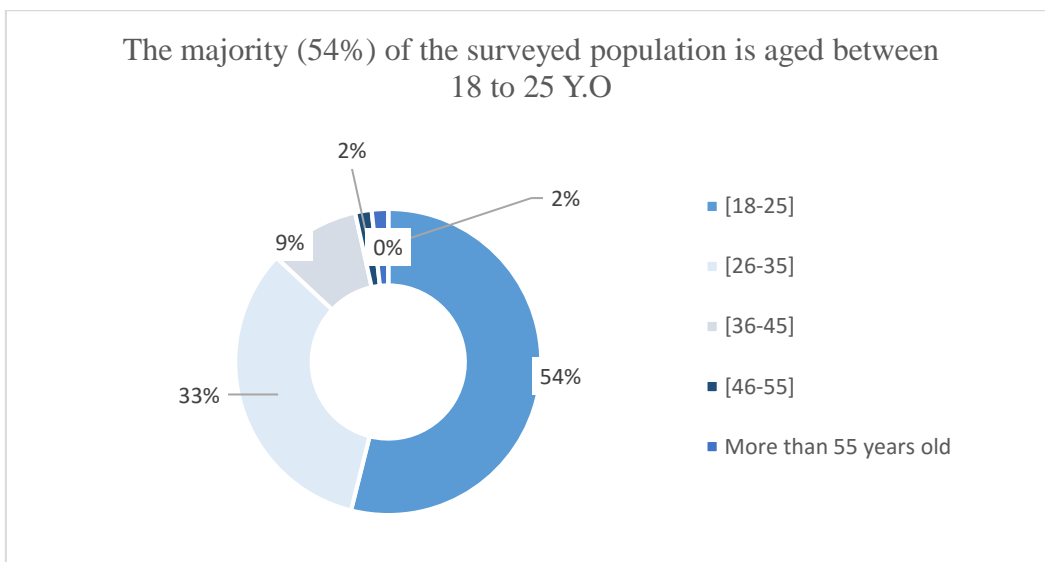
4-1- Frequency table

- The population (52%) surveyed is female

Figure III.2: Distribution of the population according to their gender

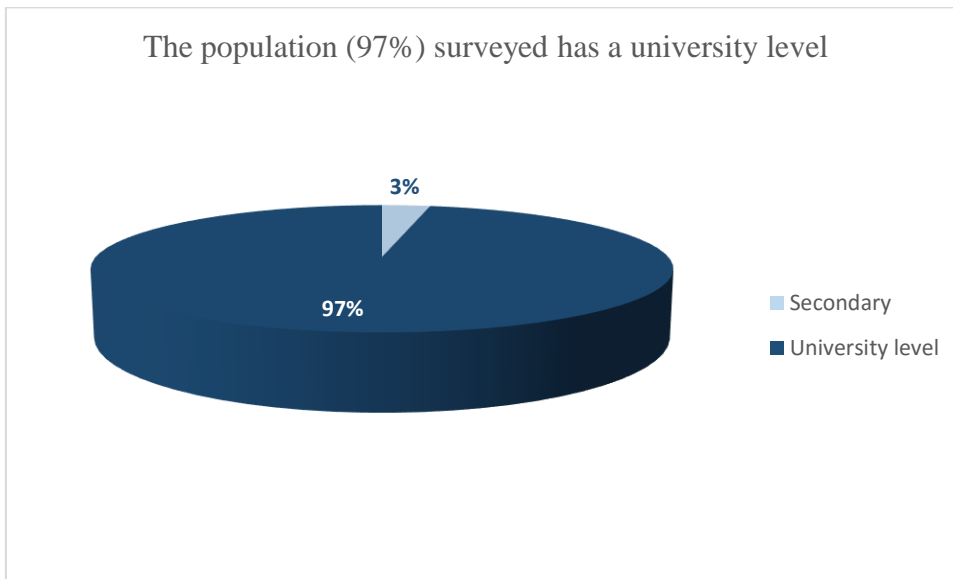
Comment: Among the 345 interrogated persons, 167 of them are men giving a percentage of 48%, and 178 are women giving a percentage of 52%. We can deduce that Algerian women are interested in online shopping more than men.

- The majority (54%) of the surveyed population is aged between 18 to 25 Y.O

Figure III.3: Distribution of the population according to their age

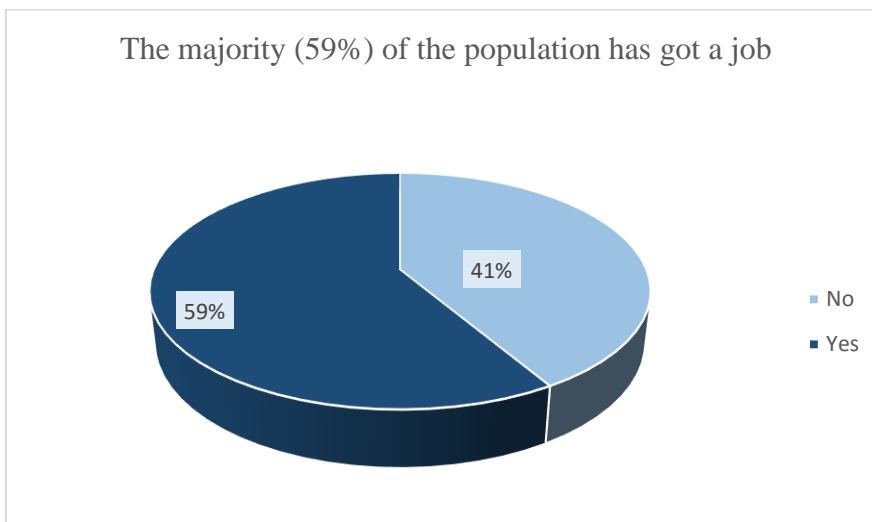
Comment: We notice that the majority (54%) of the population is aged between 18 to 25 years old; giving 186 individuals. The Algerian youth is interested in e-commerce and online shopping.

The population (97%) surveyed has a university level

FigureIII.4: Distribution of the population according to their educational level

Comment: We notice that 97% of the population has a university level giving a population of 334 individuals. Algerian Internet users interested in e-commerce have an intellectual level.

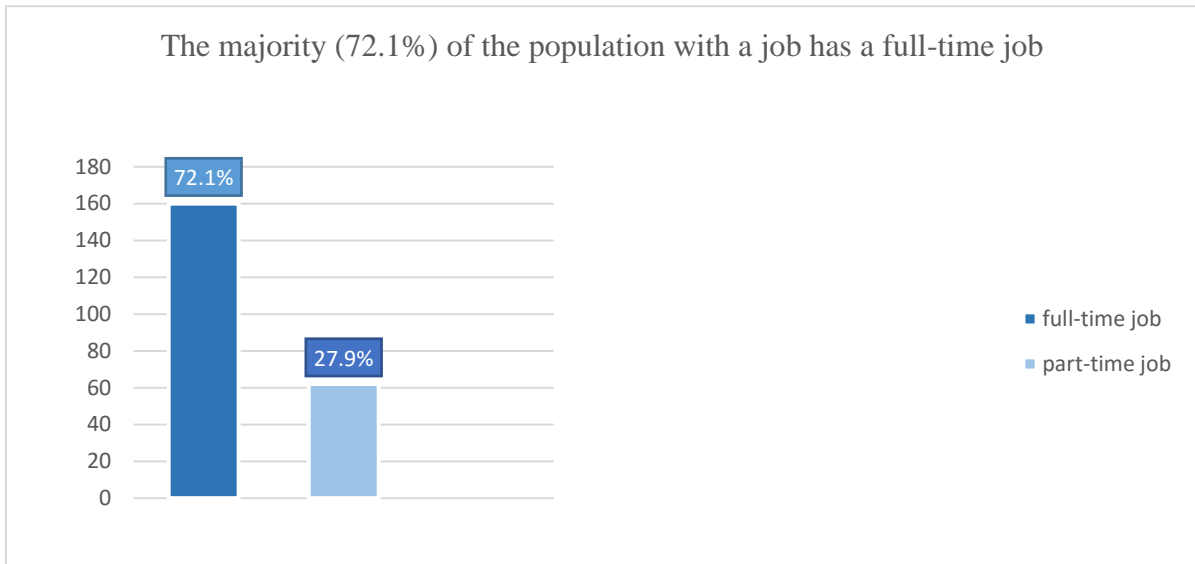
The majority (59%) of the population has a job

FigureIII.5: Distribution of the population according to their employment

Comment: From the graph above, we notice that 202 people of our population do have a job, giving a percentage of 59%. Algerians with a monthly revenue are more susceptible to buy online.

- The majority (72.1%) of the employed population has a full-time job

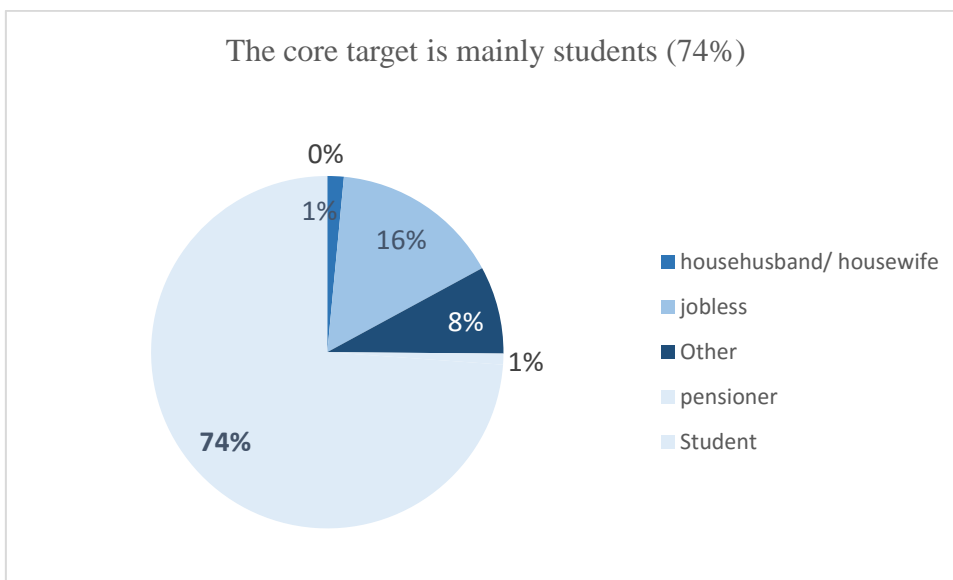
FigureIII.6: Distribution of the population according to their job nature



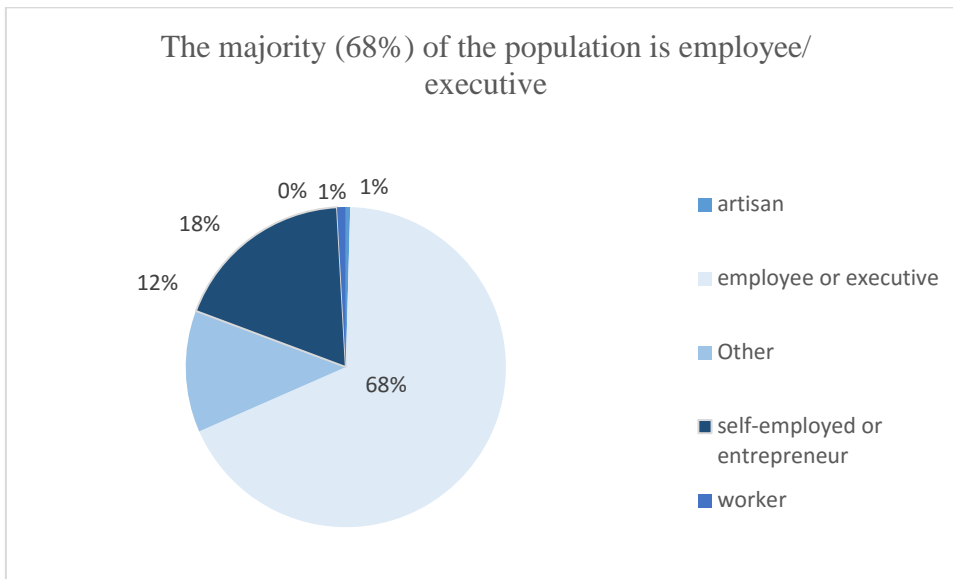
Comment: 222 persons of the interviewed population have a full-time job. They are interested in e-commerce; this is due to the easiness of e-commerce and the ability to buy anytime anywhere.

- The core target is mainly students (74%)

FigureIII.7: Distribution of the population according to their unemployment status

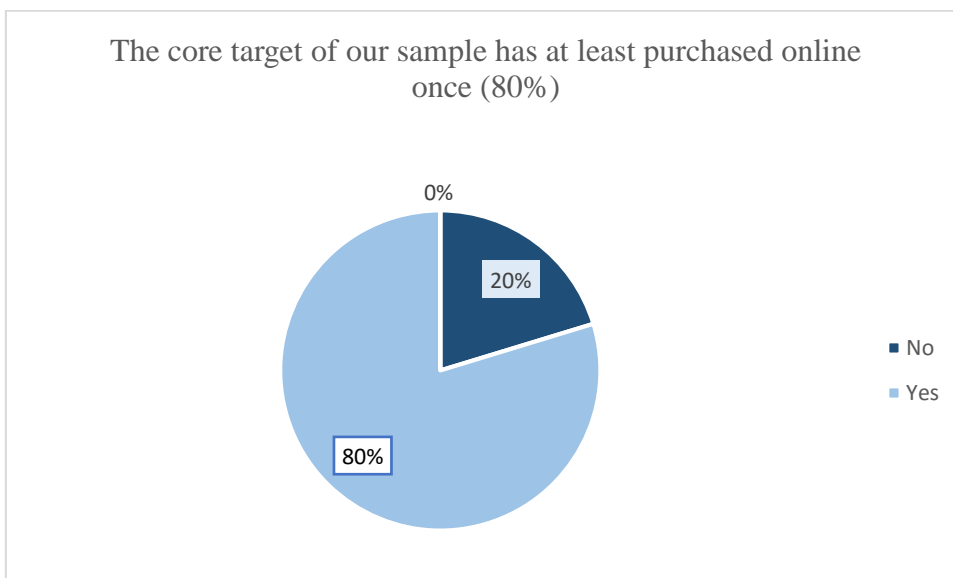


Comment: The majority (74%) of our unemployed population belongs to the students segment. Algerian students are interested in e-commerce and are eligible to be e-costumers.

FigureIII.8: Distribution of the population according to their occupational category

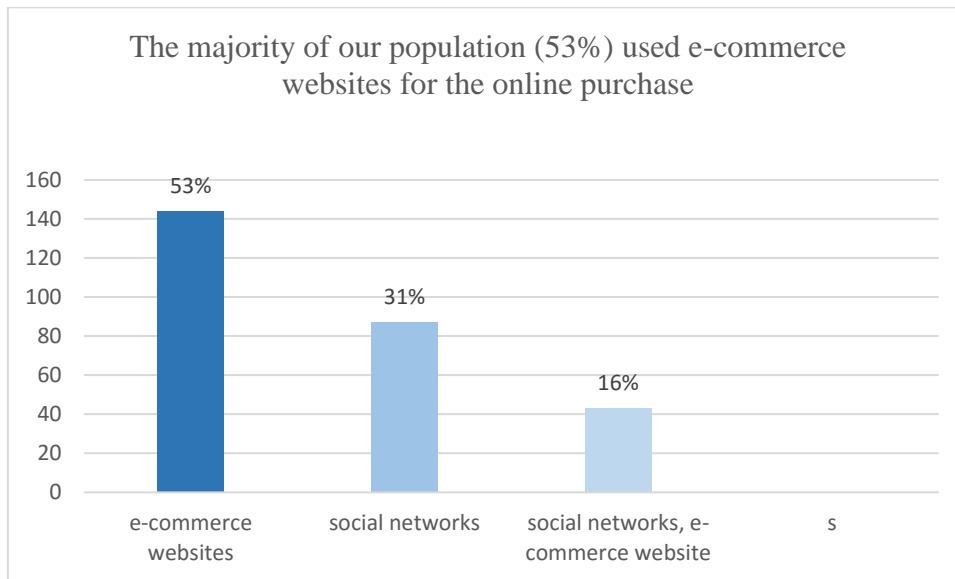
Comment: The majority (68%) of the interviewed population is whether employee or executive; individuals belonging to this category are apt to place online orders and be e-costumers.

- The core target of our sample has at least purchased online once (80%)

FigureIII.9: Distribution of the population according to their online purchase history

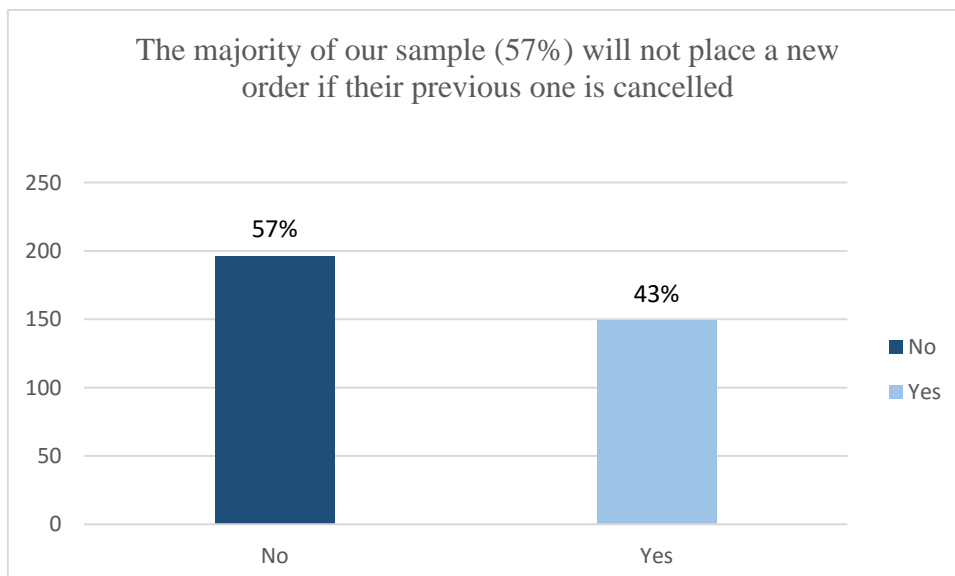
Comment: We realize that 80% of our population has at least made an online purchase; we can deduce that individuals who had a previous experience with e-commerce websites are still interested and pay attention to their satisfaction.

- The majority of our population (53%) used e-commerce websites for the online purchase

FigureIII.10: Distribution of the population according to their online purchase type

Comment: 53% of the individuals who had already made an online purchase used e-commerce websites rather than social networks. We can say that e-commerce websites in Algeria do have their place within the Algerian customer and there is a certain level of trust.

- The majority of our sample (57%) will not place a new order if their previous one is cancelled

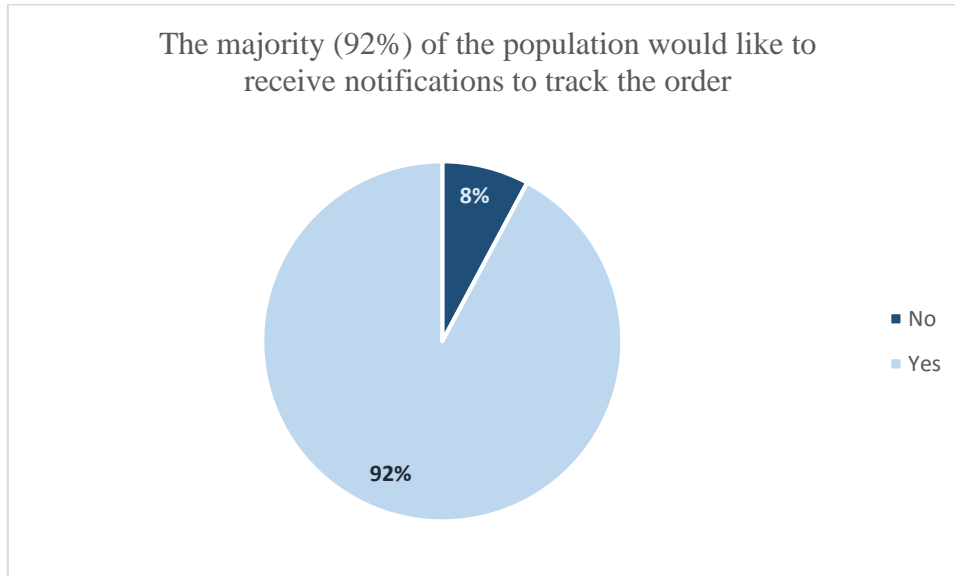
FigureIII.11: Distribution of the population according to their willingness to place a new order

Comment: 57% of the population interviewed is not ready to place a new order within a website that had cancelled a previous one because of an out of stock. Thus, managing the stock rotation is a crucial element to maintain the current customer and attract the potential one. E-suppliers

should think sustainably and pay more attention to this phase, losing a customer because of a bad management can cause a remarkable loss.

- The majority (92%) of the population would like to receive notifications to track the order

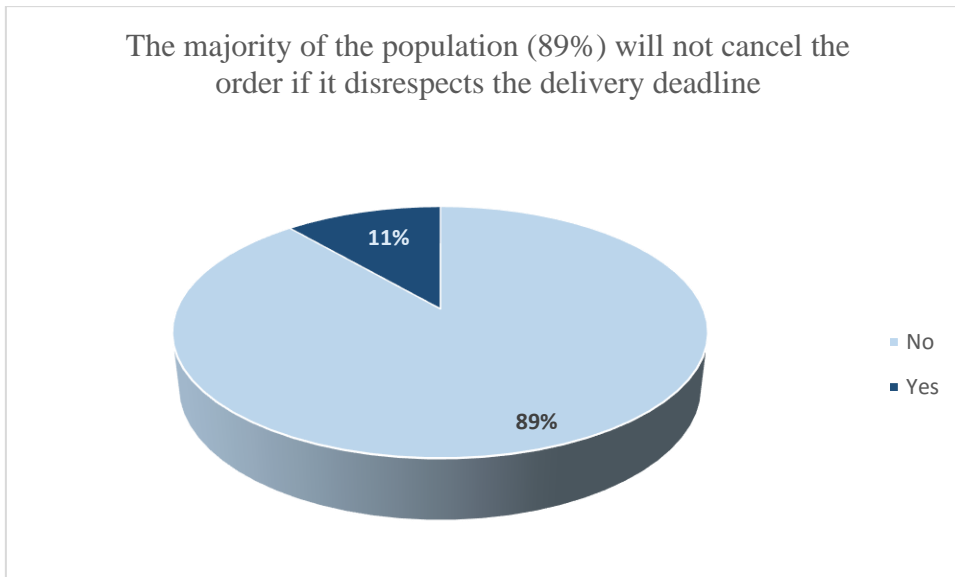
FigureIII.12: Distribution of the population according to their willingness to track the order



Comment: The majority (92%) of the interviewed population would like to receive notifications in order to track the order. E-suppliers need to focus on this point and give the necessary information. It is preferable to inform the customer about the different phases; verification, shipment, delivery and return. This will definitely increase the customer loyalty towards the website and strengthen the customer relationship.

- The majority of the population (89%) will not cancel the order if it disrespects the delivery deadline

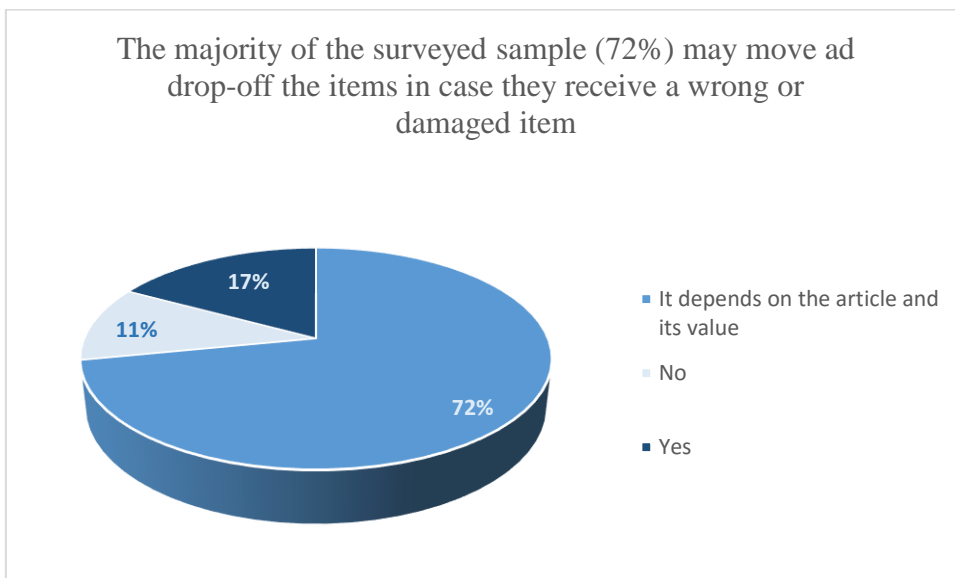
FigureIII.13: Distribution of the population according to their aim to cancel in case of delivery delay



Comment: 89% of the population will wait and accept the order even if it surpasses the deadline. Disrespecting the delivery dates is not a vital element for the Algerian customer. It does not affect the behavior, nor the loyalty towards the website.

- The majority of the surveyed sample (72%) may move and drop-off the items in case they receive a wrong item or they change their opinion

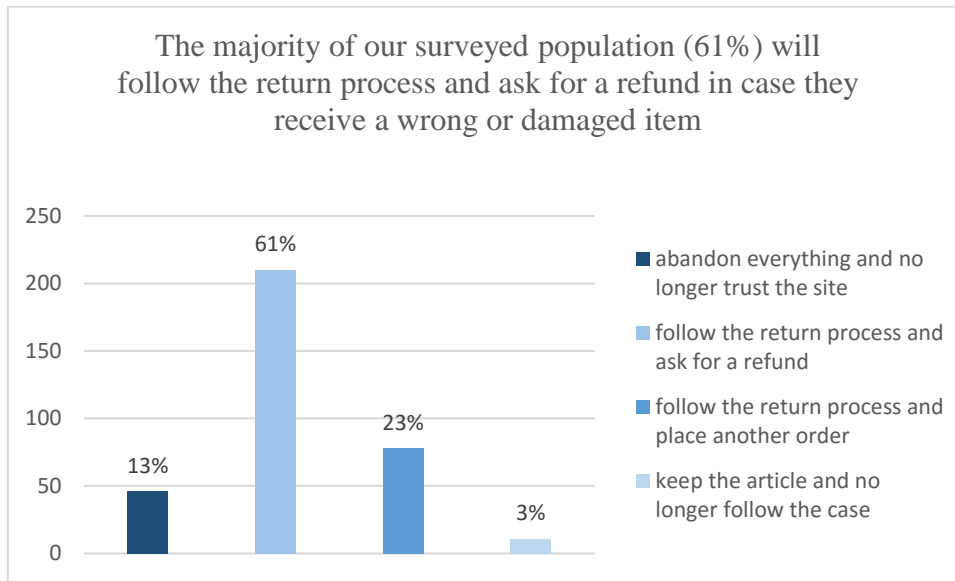
Figure III.14: Distribution of the population according to their ability to drop-off the items



Comment: The majority (72%) of the interviewed individuals may move and drop-off the items they had received. They are okay with this situation and do not require a pick-up, especially if the item is valuable or fragile.

- The majority of our surveyed population (61%) will follow the return process and ask for a refund in case they receive a wrong or damaged item

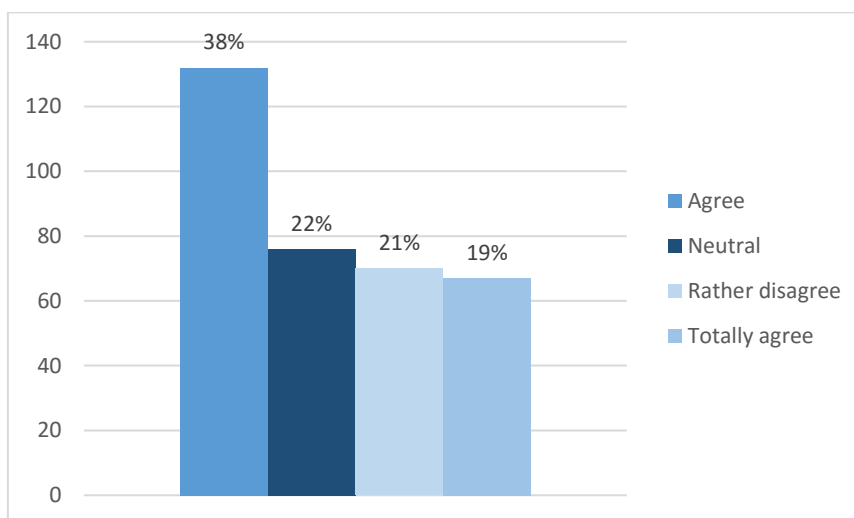
FigureIII.15: Distribution of the population according to their behavior in case of reverse logistics



Comment: In case of wrong or damaged item delivery, the majority (61%) of the surveyed population will follow the return process and ask for a refund. This is not a positive point for the e-commerce website; refunding a customer is a loss of money and additional fees. The e-supplier needs to find better alternatives and maintain the customer.

- The majority of our sample (38%) agree that the absence of OOS impacts positively on their satisfaction

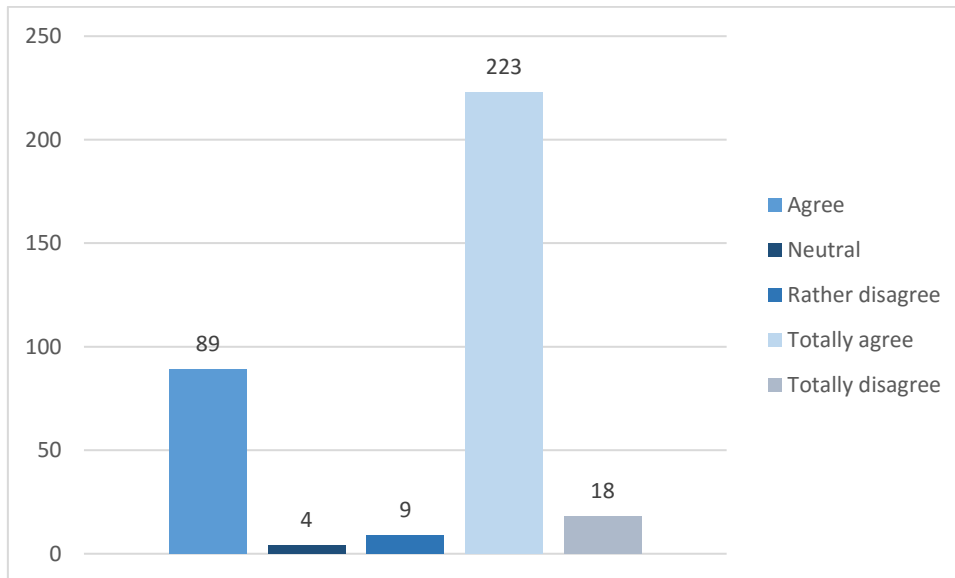
FigureIII.16: Distribution of the population according to their agreement with the OOS and the customer satisfaction



Comment: The majority of the population (38%) is agreeing that the absence of out of stock increases the customer satisfaction. For them, not to receive cancellation order emails will increase their loyalty.

- The majority of our surveyed population (65%) totally agree with the fact that tracking the shipment process of their order increases the customer satisfaction

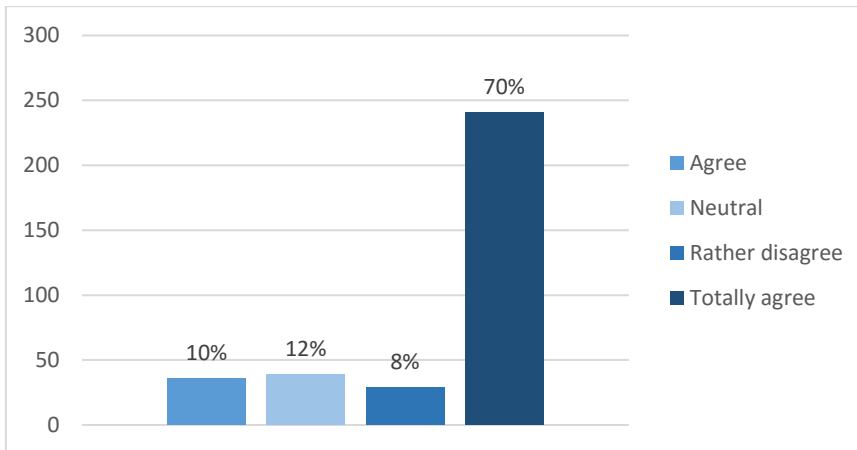
FigureIII.17: Distribution of the population according to their agreement with the tracking of the shipment process and the customer satisfaction



Comment: The majority of the population (65%) is totally agreeing that receiving notifications to track and follow the order increases their satisfaction. They are expecting to have the needed information.

- The majority of the population (70%) is totally agreeing that receiving the order on time contributes to the customer satisfaction increase

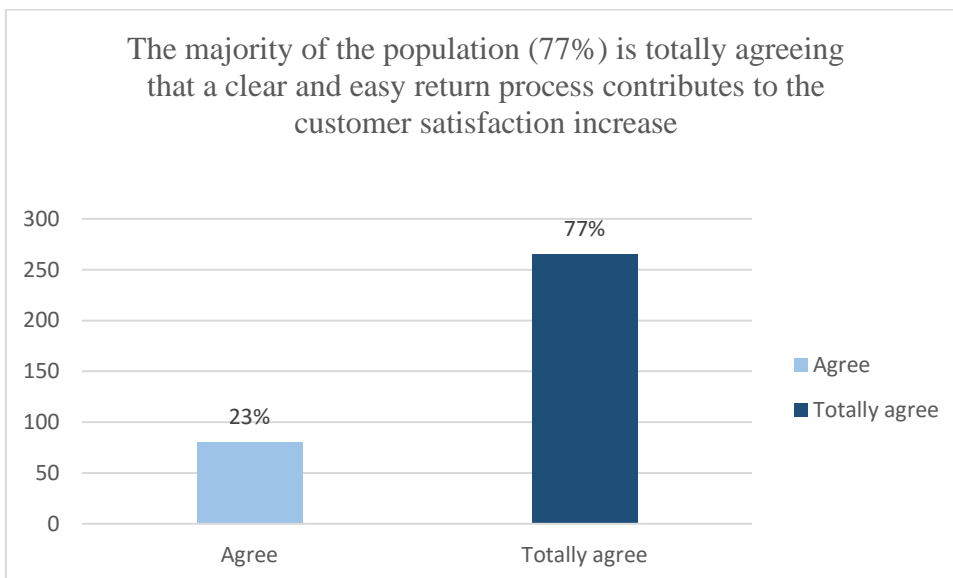
FigureIII.18: Distribution of the population according to their feeling towards an on time delivery



Comment: The majority (70%) interviewed is totally agreeing that receiving the order in the right delays increases the satisfaction; not before not after, only at the right moment.

- The majority of the population (77%) is totally agreeing that a clear and easy return process contributes to the customer satisfaction increase

FigureIII.19: Distribution of the population according to their satisfaction from a clear and easy return process



Comment: The big majority (77%) of the sample is totally agreeing that dealing with an e-supplier that use a clear and easy return process increases the satisfaction. Procedures and methods must be clear and should not be confusing in order to avoid conflicts.

3-2- Cross tabulation

We aim to review the relationship between customer satisfaction and the different elements of the supply chain. Thus, we crossed the questions related to the different links of the SC with the agreement degree with the customer satisfaction one.

- The population (19%) who totally agreed that the absence of OOS increases the customer satisfaction will not place another order if the previous is cancelled.

Table III.1: Relationship between the absence of OOS and customer satisfaction

Absence of OOS increases your satisfaction?	Will you place a new order knowing that the previous one was cancelled due to an OOS		
	No	Yes	Total général
Agree	50	82	132
Neutral	39	37	76
Rather disagree	40	30	70
Totally agree	67		67
Total général	196	149	345

Comment: Based on the results shown in the table above, we notice that:

- All of the 67 individuals who had shown their total agreement with the positive impact of the absence of out of stock on their satisfaction, will never place a new order within the same website.
- The 132 individuals who said that they agree with the positive impact of the absence of out of stock on their satisfaction, only 50 of them will never place an order, and 82 of them will.
- The majority of the population (65%) who is totally agreeing with the fact that receiving notifications in order to track the order shipment process contributes to increase the customer satisfaction, wants to receive notifications for real.

Table III.2: Relationship between the tracking of the shipment process and customer satisfaction

Receiving notifications to track the shipment process of my orders increases my satisfaction Étiquettes de lignes	Would yo like to receive notifications to track your order?		Total général
	No	Yes	
Agree			89
Neutral			4
Rather disagree		9	9
Totally agree			223
Totally disagree		18	18
Total général		27	316

Comment: Based on the results shown in the table above, we notice that:

- The 223 persons who are totally agreeing with the fact that receiving notifications in order to track the order shipment process contributes to increasing their satisfaction want to receive notifications for real.
- The total of individuals who agreed with that statement are 89 persons, and they want to receive notifications to track their order too.
- The majority of the population (77%) who is totally agreeing with the fact that a clear and easy return process contributes to increase the customer satisfaction, will follow the return process and ask for a refund in case they receive a damaged or wrong item.

TableIII.3: Relationship between the reverse logistics and customer satisfaction

Clear and easy return process increases the customer satisfaction	If you receive a wrong or damaged item, what will you do			Total général
	abandon everything and no longer trust the site	follow the return process and ask for a refund	follow the return process and place another order	
Agree		1	77	80
Totally agree	46	209	1	265
Total général	46	210	78	345

Comment: Based on the results shown in the table above, we notice that:

- We have 265 persons who are agreeing with the fact that a clear and easy return process increases their satisfaction and 209 of them opt for following the return process and asking for a refund in case they receive a wrong or damaged item.

- The 80 persons left are agreeing with that statement, and 77 of them say that if they receive a wrong or damaged item, they will follow the process and place another order.

3-3- Quantitative analysis summary:

From the outputs of the questionnaire, we can summarize as follow:

Population definition:

- ◆ the majority (52%) of the people interrogated are women
- ◆ they core of our study (54%) is aged between 18 and 25 years old
- ◆ they have a university level
- ◆ they have a full-time job
- ◆ they are employees and executives
- ◆ they have made an online purchase on e-commerce websites
- ◆ the majority (57%) will not place a new order on the same website if their previous order is canceled due to an out of stock
- ◆ they want to receive notifications to track their order
- ◆ They may find themselves drop-off the item that they want to change. It depends on the article and its value
- ◆ in case they receive a wrong or damaged item, they follow the return process and ask for a refund
- ◆ the majority (38%) agree with the fact that the absence of the out of stock increases their satisfaction
- ◆ they agree with the positive relationship between the tracking of the shipment process and customer satisfaction
- ◆ they agree with the positive impact that an on-time delivery can have on customer satisfaction
- ◆ they agree with the increase of satisfaction that can be caused by a smooth and clear return process
- ◆ the majority who is agreeing with the relationship between the customer satisfaction and absence of out of stock will not place a new order within the same website if their order got canceled
- ◆ those agreeing with the fact that tracking the shipment process increases their satisfaction want to receive notifications

- ◆ for the majority who are agreeing with the fact that a clear and easy return process impacts their satisfaction positively will follow the instructions and ask for a refund in case they receive a wrong or damaged item

To put it in a nutshell, our questionnaire allowed us to come up with the main elements that any e-commerce website or entity should not neglect and avoid in order to deliver a better experience to the customers and satisfy them.

Our sample individuals are mainly women; they are aged between 18 and 25 years old. They belong to the youth category. They all have a high educational level (university), have a full-time job and employed whether as simple employees or executives.

They are familiar with the online purchase, and they have at least placed an online order before using the different e-commerce websites more than using social networks. This shows that nowadays, online shops have their place.

If the order is canceled due to an out of stock, our sample individuals will not place a new order within the same website. Instead, they will look for another website and live a new experience with it. Thus, the e-supplier should pay attention to this aspect and prioritize it. Most of them aim to receive notifications in order to track their order, especially the shipment phase. Indeed, having an idea about the order conveyance can be a plus for both, the e-customer and the e-supplier.

In addition to this, giving the feeling of priority and importance to each customer will increase his satisfaction and belonging to the entity. The customer will feel important, and the e-supplier is caring about him and his order.

In case the customer wants to return an item for a reason or another, it is not mandatory that the e-supplier goes and picks it up. The customer himself can do the drop-off. It depends on the item and its value. The e-supplier should thoroughly explain the procedures and steps before. However, when it comes to what is beyond the item return, the majority will ask for a refund. Moreover, this is mainly due to the bad experience that they had. They do not want to take another risk by ordering a new item.

They will return the item, get refund, and look for another offer. To avoid this, the e-supplier has to deliver the best experience to the customer every time as if it was the first time.

The majority of the population affirm that there is a positive relationship between their satisfaction and the excellent management of the supply chain.

They are starting from the information flow to the physical ones ending by the financial. The absence of out of stocks, the tracking of the shipment process, the on-time delivery, and an excellent reverse logistics will impact customer satisfaction positively.

Finally, having an e-commerce website is not having an online portal with an extensive range of products and different colors and prices. Having an e-commerce website requires a deep understanding of the Algerian customer first, his needs and expectations.

To deliver the best experience, maintain and build a strong relationship with the current customer, and gain the potential ones, we have to take care of every single element of the supply chain. Not only until the delivery, but also to the post-delivery phase.

Table 3.22: Hypotheses' testing

Hypothesis	Comment	Status
<p><u>Hypothesis 01:</u></p> <p>High stock rotation influences positively customer satisfaction</p>	<p>Based on the feedback of the participants of the focus group, they will not place a new order if they face an order cancelation because of an OOS.</p> <p>Based on the significant number of people answering "No" on the question 10 and their high agreement with the fact that the absence of OOS increases their satisfaction, they will not place a new order within the same website after losing the previous one (cancelation because of an OOS).</p>	Confirmed
<p><u>Hypothesis 02:</u></p>	<p>Based on the outputs gathered from the focus group participants concerning their willingness to receive notifications in</p>	

The tracking of the shipment process has a positive impact on customer satisfaction	order to track the process of their order treatment and shipment and the positive effect that has on their psychology, it increases their satisfaction. Based on the high number of individuals answering “Yes” on the 11 th question and their high agreement with the reality that it increases their satisfaction, they will get satisfied if they receive notifications.	Confirmed
<u>Hypothesis 03:</u> An excellent reverse logistics strengthen the relationship with the customer	According to the focus group participants' feedbacks, and the results obtained in question 14, excellent reverse logistics increases customer satisfaction.	Confirmed

3-4- Suggestions and recommendations

Based on the results obtained through this research; the survey and focus group and after the failures and lacks witnessed, we would like to propose for the company Clozer Tech & Consulting a few recommendations. These suggestions may help them in the realization of their e-commerce website. For better customer experience, and in order to come up with an added value to the Algerian customer, here is what do we suggest:

- ◆ Update regularly the website and check the available quantity in stock: in order to avoid the out of stock issues and the negative effect that can have on the customer, it is preferable to have an updated list of products with the available items, sizes, colors...
- ◆ In case the items on the website are not the owners', the risk of being in such situations is high. Therefore, what do we suggest is attributing a specific budget for cases and situations like these. Having a budget dedicated to apology vouchers for our customers

can strengthen the relationship with the customer and maintain him. Instead of leaving the website and looking for a new offer, by using this voucher he will need to look for his needs within the website in question, and by doing this, the error can be erased.

- ◆ Create a database of all customers of the website and send them regular newsletters to promote the available products of the website and its special offers.
- ◆ Opt for the e-mailing strategy to put the customer in the picture and provide him with all the needed information. By sending regular emails and during his journey with the website, the customer will feel reassured, and he will trust his e-supplier.
- ◆ Do not cut the relationship with the customer right after the operation is done. Having his feedbacks and insights is a plus for the website. It will be useful soon; learn from mistakes and avoid them.
- ◆ It is preferable not to put short delivery deadlines at the beginning so the customer will not set high expectations. To attract the customer is right, but to keep up with the promise is better. Thus, to avoid any conflict because of the delivery delay and issues, it would be preferable to expand the delivery deadline.
- ◆ In case the website starts receiving a substantial number of orders per day, the management of physical flows will get harder. So, it is preferable to outsource transport for a better delivery experience.
- ◆ Make sure to do quality control of the items before their shipment; this will decrease the return rate.
- ◆ For better customer experience, the delivery agents should reflect the values and principles of the website. Thus, regular pieces of training are needed.
- ◆ Assign a whole section within the website for sales conditions, payment, delivery delays, return and refund processes.
- ◆ Think about the reverse logistics and the return cases; prepare hubs or gathering points in each region of the country to facilitate the task for customers aiming to drop-off their items.
- ◆ Be present on social networks, promote the website before its launch.
- ◆ Once the website is launched, share the available items on the Facebook fan page, and Instagram accounts simultaneously.
- ◆ Think about building a virtual identity by respecting the principles and values of the website.
- ◆ Establish a guidelines booklet for the communication rules; policy size, type, colors...

- ◆ Collaborate with the well-known influencers and actors of the Algerian society to popularize the website. The endorsement is preferable before the launch and during the maturity of the website.
- ◆ Prepare regular promotions and occasions, like celebrating the anniversary of the website, national or religious days.
- ◆ Build a reliable information system and check it each time to avoid technical issues and bugs.

Conclusion

General conclusion

Nowadays, all that is electronic and digital is getting more and more famous and trendy. Wherever we go, we face this reality. Whether in the bus station, at school, home, work...

People are getting familiarized with technology, and the different social classes are connected. Indeed, it is a good thing, they are responsive to changes, but what should not be neglected is the increase in their demand that is continuously varying.

All the entities should go with the flow and be on the top of the customers' expectations and needs. Talking about customers, business holders must be the pioneers.

In order to bring an added value, many concepts and basis should be well understood. Also, it is the case of electronic commerce.

Not anyone who launches an online store is delivering the right experience to the customer, even if he receives a critical number of orders per day. Customer satisfaction still a crucial aspect that many of e-suppliers are overlooking its necessity.

This was mainly the principal element that pushed us to choose this topic and try to demonstrate that e-commerce is beyond the image that we are reflecting right now.

We started our study by linking the concept of electronic commerce to our field of study, supply chain management, and we came up to the impact that can SCM have on customer satisfaction. It was already proven that supply chain management impacts customer satisfaction, but we wanted to highlight, "How does supply chain management satisfy current and potential customer within an e-commerce website?"

We started our work by overviewing the theoretical framework of supply chain management and electronic supply chain management, e-business and e-commerce and then, the state of affairs of e-commerce in Algeria.

The first chapter was to consolidate our knowledge and make sure that we all have the same understanding of the concepts treated.

With the same motto, we tackled the customer satisfaction in the second chapter and highlighted its significant elements.

Coming to the third chapter, we presented our case study company which allowed us to achieve this research, and then we presented the research methodology of the study before we analyze the data that we could gather through the focus group that we have done or the online survey that we launched on social networks.

The study that we did was simultaneous with a project that our host entity is working on; the launch of an e-commerce website, what are the crucial elements that should appear on the website, the system and what should be avoided.

General conclusion

We started working with them based on our theoretical concepts and the results that we had. The results that we obtained allowed us to test our study's hypothesis that is going to be reviewed as follows:

- The first hypothesis was validated; high stock rotation influences customer satisfaction positively.
- The second hypothesis was validated; the tracking of the shipment process has a positive impact on customer satisfaction.
- The third hypothesis was validated, an excellent and mastered reverse logistics strengthen the relationship with a customer and increases its loyalty toward the website.

Furthermore, and during our internship period, we could notice that despite the e-commerce websites present in Algeria (between formal and informal), it is still a virgin sector and an excellent opportunity.

Few are the websites with a solid business plan and the legal basis.

We came up with some recommendations and solutions that we aim to see them applied shortly for better customer experience and a healthy relationship.

The entity that is aiming to deliver the best customer experience should be, without any doubt, customer-centric and customer-oriented.

Moreover, we have faced some barriers during our study, such as the blank of the e-payment process in Algeria, which is despite that law of 05-18 that tackles e-commerce in general, still enigmatic. In order not to get lost, we did not tackle this part in our study.

In addition to this, even the critical number of answers collected, which is 345 respondents to our questionnaire. We still doubt of generalizing the study's results due to the sample that we have (it is not that representative, in our opinion) and the potential bias that could affect the sincerity and objectivity of the study's population answers to the questionnaire.

We are aware that the study that we have done is not complete and still needs many other aspects to treat. Hence, we are suggesting new research axes in the upcoming promotions, such as:

- The impact of drop shipping on the performance on a new e-commerce website.
- The post-delivery relationship and its contribution to customer loyalty, case of an e-commerce website.
- E-payment in Algeria, a boost or a curb for e-commerce websites.

General conclusion

Finally, we hope that we have succeeded in selecting the subject of the research and in the collection of its scientific material, as well as in its study and its presentation in a form that serves the purposes of scientific research.

After all, it is a human effort that requires a human deficiency, and need to be corrected.

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APPENDICES

Appendices

Appendix 1: Focus Group Questions

Appendix 2: Survey (Questionnaire)

Appendix 3 : Questionnaire Results in table

Appendix 1 : Focus group questions

- ✓ How many times a month do you make an online purchase?
- ✓ What pushes you to place an online order?
- ✓ According to you, what are the crucial elements that must appear on any online shopping platform?
- ✓ What will you do if you receive an email telling you that the order that you placed and was confirmed is canceled due to an out of stock?
- ✓ What do you think about the process tracking of your order?
- ✓ What measures will you take if you face a delivery delay?
- ✓ In case of wrong or damaged item delivery, how will you proceed?
- ✓ Moreover, finally, what will you do if the e-supplier asks from you to drop-off the items received in order to get a refund

A	B	C	D	E	F	G	H	I	J	K	L
Participant	E-mail	Tel	Présent	A quelle fréquence magasinez-vous en ligne?	Qu'est-ce qui vous motive à acheter en ligne?	Selon vous, quels sont les éléments qui doivent apparaître dans tout site e-commerce?	Quelle sera votre réaction en apprenant que la commande que vous avez effectuée et qui a été confirmée est annulée suite à une rupture de stock?	Que pensez-vous du processus de suivi de commande?	Que feriez-vous si votre commande dépasse les délais de livraison communiqués?	Dans le cas d'un produit endommagé ou mauvais article, comment procéderiez-vous?	Et pour finir, que feriez-vous si le fournisseur vous demande de déposer vos articles pour pouvoir bénéficier du remboursement?
Nouha			Y								
Atkmane			Y								
Hiba			N								
Sabrina			Y								
Yamina			Y								
Ahmed			Y								
Mordjane			Y								

Appendix 1: Focus Group Questions

Appendix 2: Survey

We are launching this survey in the context of the realization of a thesis in order to obtain a master's degree in commercial sciences, option "Distribution and SCM" at EHEC Algiers.

Your collaboration is useful and we kindly ask you to answer this questionnaire for the outcome of our study titled, "the impact of supply chain management on customer satisfaction, case of an e-commerce website".

We would like to make it clear that the information you give in this questionnaire will be anonymous and processed for scientific purposes only.

1- You are

Male Female

2- To which age range do you belong?

[18-25] [26-35] [36-45] [46-55] More than 55 Y.O.

3- What is your educational level?

Primary Middle School High School University level

4- Do you have a job?

Yes No

5- If yes, it is?

Part-time Job Full-time Job

6- If you do not have a job, what is your situation?

Student Jobless Housewife/Househusband Pensioner Other

7- What is your occupational category?

Employee/Executive Self-employed/Entrepreneur Artisan Worker Other

8- Have you already made an online purchase?

Yes No

9- If yes, your purchase was?

Social networks e-commerce websites both

10- If after placing an order online and it is confirmed, we inform you that it is canceled due to an out of stock. Would you place another order later on the same site?

Yes No

11- Would you like to receive notifications in order to follow your order process?

Yes No

12- Will you cancel the order if it disrespects the delivery deadline?

Yes No

13- If an anomaly is detected or you simply change your mind, will you move and drop-off the item that you ordered?

Yes It depends on the item and its value No

14- If you receive a wrong item or a damaged one, you will?

-follow the return process and ask for a refund

-keep the article and no longer follow the case

-abandon everything and no longer trust the site

-follow the return process and place another order

15- Show your degree of agreement?

Totally disagree, disagree, neutral, agree, totally agree

The absence of out of stock increases the customer satisfaction

The tracking of the shipment process contributes to satisfying the customer

Receiving my order on time is mandatory for my satisfaction

Clear and easy return process is a major element for any customer satisfaction

Appendix 3 :Results of the surveys illustrated in tables:

Figure 3.1: Distribution of the population according to their gender

Gender	Percentage (%)	Frequency
Male	48	167
Female	52	178
Total	100	345

Figure 3.2: Distribution of the population according to their age

Age range	Percentage (%)	Frequency
[18-25] years old	54	186
[26-35] years old	33	114
[36-45] years old	9	33
[46-55] years old	2	6
More than 55 years old	2	6
Total	100	345

Figure3.3:Distribution of the population according to their educational level

Educational level	Percentage (%)	Frequency
Primary	0	0
Middle School	0	0
High School	3	11
University	97	334
Total	100	345

Figure3.4:Distribution of the population according to their employment

Job	Percentage (%)	Frequency
Yes	59	202
No	41	143
Total	100	345

Figure3.5: Distribution of the population according to their job nature

Job nature	Percentage (%)	Frequency
Part-time job	27.9	62
Full-time job	72.1	160

Total	100	222
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Figure3.6: Distribution of the population according to their unemployment status

Situation	Percentage (%)	Frequency
Pensioner	1	2
Student	74	147
Househusband/Housewife	1	3
Jobless	16	31
Other	8	16
Total	100	123

Figure3.7: Distribution of the population according to their occupational category

Occupational category	Percentage (%)	Frequency
Employee or Executive	68	149
Self-employed or Entrepreneur	18	42
Worker	1	2
Artisan	1	1
Other	12	28
Total	100	222

Figure3.8: Distribution of the population according to their online purchase history

Online purchase	Percentage (%)	Frequency
Yes	80	275
No	20	70
Total	100	345

Figure3.9:

Purchase	Percentage	Frequency
Social networks	31	87
E-commerce websites	53	145
Both	16	44
Total	100	276

Figure3.10:

Will you place another order?	Percentage (%)	Frequency
Yes	43	149
No	57	196
Total	100	345

Figure3.11:

Do you want to receive notifications to track your order?	Percentage (%)	Frequency
Yes	92	318
No	8	27
Total	100	345

Figure3.12:

Will you cancel the order if it disrespects the delivery deadline?	Percentage (%)	Frequency
Yes	11	39
No	89	306
Total	100	345

Figure3.13:

Will you move and drop-off the item that you ordered?	Percentage (%)	Frequency
Yes	17	59
It depends on the item and its value	72	248
No	11	38
Total	100	345

Figure3.14:

If you receive a wrong item or a damaged one, you will	Percentage (%)	Frequency
follow the return process and place another order	23	78
follow the return process and ask for a refund	61	210
keep the article and no longer follow the case	3	11
abandon everything and no longer trust the site	13	46
Total	100	345

Figure3.15:

The absence of OOS impacts positively on my satisfaction	Percentage (%)	Frequency
Disagree	0	0
Rather disagree	21	70
Neutral	22	76
Agree	38	132
Totally agree	19	67
Total	100	345

Figure3.16:

The tracking of the	Percentage (%)	Frequency
Disagree	5	18
Rather disagree	3	11
Neutral	1	4
Agree	26	89
Totally agree	65	223
Total	100	345

Figure3.17:

Receiving my order on time	Percentage (%)	Frequency
Disagree	0	0
Rather disagree	8	29
Neutral	12	39
Agree	10	36
Totally Agree	70	241
Total	100	345

Figure3.18:

Clear and easy return	Percentage (%)	Frequency
Disagree	0	0
Rather disagree	0	0
Neutral	0	0
Agree	23	80
Totally agree	77	265
Total	100	345

Content

Introduction	2
1-Electronic Supply Chain Management: Literature Review	6
1.1 General Concept of Supply Chain Management:.....	6
1-1-1 Evolution of SCM:.....	9
A- Historical beginnings:	9
B- Stages of SCM development:	10
1-1-2 Advantages of SCM:	12
1-2 - General concept of e-supply chain management:	13
1-3-E-business and e-commerce	15
2-Logistics within a selling website:.....	20
2-1-E-logistics.....	21
2-1-1-Definition of E-logistics:	21
2-1-2- Historical development:	21
2-1-3-E-logistics implementation:.....	23
2-1-4-Objectives of e-logistics:	26
2-1-5- Reverse logistics:.....	26
1-Customer satisfaction.....	29
1-1-General concept of customer satisfaction:.....	29
1-2-Customer satisfaction and service quality	30
1-2-1-Online shopping and service quality:	30
1-3-Importance of e-commerce in customer satisfaction:	31
2-SCM and customer satisfaction	32
2-1- Defining out-of-stock situations:	32
1. Benefits of Dropshipping:	34
2. Disadvantages of Dropshipping:	34
2-2-The shipment process:	35
2-2-1-Setting shipping rates and methods:	35
Calculating shipping costs:.....	36
A-Packaging options:	37
2.3-E-commerce Shipping Best Practices	38
1- Assemble the right team.....	38

2-	Define the goals for the shipping strategy.	38
2.3.1.	E-commerce Shipping Strategy Goals:	38
a-	Most Important Ecommerce Shipping Considerations:	39
b-	Product size and weight:	39
c-	Shipping Destinations:	39
-	Shipping Lead Time.....	40
-	Click through rate for online business:	40
3-	Selling Website	40
3-1-	A website has got a name	40
3-2-	A home page:.....	41
1	State of Affairs of e-commerce in Algeria:	50
1.1.	Reality of e-commerce in Algeria	50
1-1-1-	Sales forms:	51
1-1-2-	Algerian Internet users' profile:	52
1-1-3-	Forms of payment:	53
1-2-	Ecommerce future in Algeria	54
1-3-	Law of 05-18	55
1-3-1-	General Provisions:	55
1-3-2-	Electronic commerce practices:.....	55
2-	Presentation of the entity	57
2-1-	Activities and values.....	57
2-2-	Organizational chart and structure.....	57
3-	The methodological framework of the study	59
3-1-	Presentation of the methodology:	59
3-2-	Choice of the methodology.....	60
3-3-	The sample selection:	61
3-4-	Conduct of the survey through the focus group.....	61
3-4-1-	Preparation for the focus group:	61
3-4-2-	Recruitment of the focus group participants:	61
3-4-3-	Questions design:	62
3-4-4-	Results and analysis of the quantitative study:.....	62
3-4-5-	Qualitative analysis summary:	64
3-5-	Conduct of the survey through the questionnaire	64

3-5-1- Implementation of the questionnaire:.....	64
3-5-2- Structure of the questionnaire:	65
4- Case study analysis :	66
4-1- Frequency table	66
3-2- Cross tabulation	78
3-3- Quantitative analysis summary:.....	80
3-4- Suggestions and recommendations.....	83
Conclusion	86