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E-COMMERCE MEANS OF PAYMENT SECURING : Case Study(ALGERIA)

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LIST OF ABBREVIATIONS.

ATM.....	Automated Teller Machine
B2B.....	Business-to-Business
B2C.....	Business-to-Consumer
CAGR.....	Compound Annual Growth Rate
DSO.....	Day Sales Outstanding
EDI.....	Electronic Data Interchange
EFT.....	Electronic Funds Transfer
http.....	HyperText Transfer Protocol
ID number.....	Identity number
ISP.....	Internet Service Provider
MOS.....	Management Operating System
PIN.....	Personal Identification Number
P2P.....	Person-to-Person Payments
LAN.....	Local Area Network
SCM.....	Supply Chain Management
TV.....	Television
WAN.....	Wide Area Network

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GENERAL INTRODUCTION

GENERAL INTRODUCTION.

New technologies, the Internet in particular has brought us into a new economic era whereby companies are obliged to follow the different technological, economical, communication and social developments, in order to adapt to the new requirements of customers, who have therefore become very active and request for service often.

The business world has changed, networks and new concepts have appeared in parallel everywhere. Recently, the Internet has become an indispensable way in all areas and It has joined the economy intelligently.

Recently, the exploitation of new information technologies (IT) has been of better importance and has increasingly become felt in SMEs. In a report from the ministry of industry and commerce concerning the development the strategies of e-business.

In Algeria, internet has been used and social networks have evolved as new applications and their appropriation, which have led to the evolution and change in the behaviour of consumers. This development became a binding for companies in Algeria that have endeavored to these new technologies in order to create value and satisfy their customers and retain them.

The Algerian society has gradually opened up to the world of new information and communications technologies. And in addition, internet accessibility has become easier than ever¹.

Algerian companies are very upset by all these rapid evolutions of their technological environment that has been forced to review its market vision or at least redefine it.

The problematic of the topic ; « How are online payments secured in Algeria ? ».

It is here where the problem is broken down into three essential sub-questions that are as follows ;

1. What is e-commerce and the procedures for its developement ?
2. What are the means implemented by online stores to secure their customers' purchase as much as possible ?
3. What is the state of e-commerce and electronic payment in Algeria and other countries ?

The Objectives of my research.

Electronic commerce is a very interesting subject and these are the current pillars in the development of business.

- To determine the importance of digital strategy
- To measure the level of appreciation of online purchase by the consumers in Algeria.

The Choice of the subject of research.

The interest in the subject and the sector is justified by :

- The importance of E-Commerce especially with the rapidity in the development of new technologies, applications and uses of information technology, it is of importance for companies in Algeria to integrate it within.

¹ Hassen Houache, Noor Hayani Binti Abd Rahima, Mohamed Jalaldeen Mohamed Razi, Asadullah Shah. (2020). Factors influencing the adoption of e-commerce by Small and Medium-Sized Entreprises in Algeria, vol 6, p.1/10

- This theme has allowed the widening of my knowledge of e-commerce both theoretically and to check its application. It also allowed me to enrich an area that is not or less exploited in terms of research in Algeria.

- It also allowed me to better control statistical and marketing tools. The interest of the subject on the ground since there is a craze in the recent years for these types of activities such as e-commerce.

Research Methodology.

I am supposed to make a research about how online payments are secured in different parts of the world, so i embarked on the following methods of research

Firstly, i made a theoretical research using different avenues to define and analyse the concept of e-commerce, its development procedures and ofcourse the different means of payment implemented by companies to secure the confidence of their customers.

Secondly, i made a quantitativ reaserch using questionnaires to determine the factors that affect online purchases in Algeria with a sample of 20. This study was topped up by the extracted study from « the global e-commerce playbook) which shows the CAGR of retail e-commerce sales in 20 selected european countries. This enebled me to do a camparative study among them.

The work structure used to carry out this work.

I found it useful to structure this brief in three chapters :

In the first chapter, the conceptual framework on e-commerce, its evolution, its forms and its specificities will be discussed and this chapter comprises two sections.

Then, in the second chapter the means of payment implemented by companies to secure their customers will be discussed and the first section concerning the payment methods used in e-commerce, and the second section talking about the security of online payment methods used by companies

And the third chapter talks about the comparative study of E-commerce in Algeria with other countries, a questionnaire with a sample of 20 respondents was used in order to conduct the survey and it contains two sections. An empirical study was extracted from « the global E-commerce play book » for 20 selected european countries showing the Compound Annual Growth Rate in retail e-commerce sales from 2021 to 2025 and the results are discussed.

CHAPTER 1: CONCEPTUAL FRAMEWORK ON E-COMMERCE.

Introduction.

Electronic commerce has become very important for businesses over years and with the increased level of awareness about the usage of computers and communications technologies in order to simplify business procedures and increase efficiency. To combine a range of processes like Electronic Data Interchange (EDI), World Wide Web (WWW), electronic mail (e-mail) and other internet applications, e-commerce has thereby provided ways to exchange information among individuals, companies and countries and most importantly between computers.

E-commerce is also the movement of business onto the World Wide Web, this movement is divided into 2 categories: Business-to-Business (B2B) and Business-to-consumer (B2C). E-commerce comprises the main business processes of purchases, sales, services and information over the internet and the information of e-commerce on the internet is very huge and fast growing².

Section 1: Generalities on electronic commerce.

This section will help one understand the concept of E-Commerce, the difference between E-Commerce and traditional commerce and also the advantages of E-commerce to Organizations, society and customers, some of the applications used in electronic commerce and some of the unique characteristics of E-commerce and on the side of E-Marketing/ Digital marketing will help one understand the concepts of Digital marketing/E-marketing, the objectives of E-marketing, its importance, its disadvantages and the E-Marketing mix.

1. Electronic commerce.

1.1. Definition³.

The term electronic commerce or e-commerce is referred to as the use of the electronic medium to carry out commercial transactions. And most of the time, it's referred to as the sale of products through the internet, but this term E-commerce has also covered the purchasing mechanisms through the internet (B2B).

E-commerce also known as electronic commerce or internet commerce is defined as the purchase and sale of goods or services through the internet and also the transfer of money and data to carry out these transactions.

A. Meaning/Significance of E-commerce.

E-commerce is the buzzword of the day-to-day modern world. In simple terms, it's the purchase and sale of products and services via internet. But in reality, it includes the entire online process of developing, marketing, purchases, sales, delivery, servicing and paying for products and services. And with the widespread use of internet, E-commerce has increased grossly.

Today Electronic commerce is an integral part of business due to various reasons such as:

The ease of its use. It's accessible across the world, the payment channels are trusted, shopping is easily done in the comfort of your home and hence it's less time consuming and there's a variety of goods/products from different vendors online. It's therefore important for new entrepreneurs to understand the significance/meaning of E-commerce and should be knowing how to use this as a tool for the growth and development of their new businesses.

So, whether there's an already existing business or the launch of a brand-new business, whether the volume the volume of the business is larger or smaller, one can always generate profits through

² P.T. Joseph, S.J., 2009, « E-Commerce, An Indian Perspective », 3rd Edition, page 1

³ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-1, INTRODUCTION TO E COMMERCE, page 4/91

demonstrating /advertising products and services online, hence acquiring a very large amount of viewer exposure. In concise, the purchase and sale of goods and services will always result into profits and returns.

There are various and several factors that make e-commerce to come to the fore front of the day-to-day world such as time saving involved in the business transactions is a really very important factor, for example net banking which makes it very easy to carry out money and banking transactions.

Connectivity is another very important factor too in the determination of the flow of business. This connectivity is very important for both clients/customers and businesses. E-commerce has provided better connectivity for all the potential vendors/suppliers or companies online all over the world and thus helping in the launching of businesses without any geographical barriers/limitations/problems.

The emergence of electronic commerce in today's global/world's market has opened up various opportunities for a variety of companies and investors and vendors online as more and more resources are being used and directed into the electronic securities, internet facilities, new technologies due to the booming in the E-commerce space and not forgetting new business plans and with this result new various markets have emerged and hence giving a boost to the global market⁴.

B. The Scope of E-commerce⁵.

E-commerce is just more than the purchase and sale of goods and services online. It involves the entire online process of developing, marketing, sale, delivery/delivering, servicing and payment for products and services.

1.2. E-commerce and traditional commerce.

1.2.1. Definition of E-commerce.

E-commerce is defined as the exchange of goods and services, funds or information among businesses and consumers/clients through the use of electronic network such as internet or online social networking, e-commerce signifies trading and providing assistance to trading activities with the use of the electronic medium for example all activities such as buying, selling, ordering and paying are all performed over the internet.

1.2.2. Definition of traditional commerce.

Traditional commerce is defined as a business which composes all activities that facilitate exchange. There are 2 kinds of activities included/involved in commerce and that is to say trade and auxiliaries to trade. The term trade is defined as the purchase and sale of goods and services for cash or kind whereas auxiliaries to trade refers to all activities such as banking, advertisements ,insurance , packaging, transportation and so on and these help in the successful completion of the buying and selling of goods and services among parties.

In other news, commerce composes all activities that help to simplify the buying and selling of goods and services from the manufacturers to the final consumer and when the goods are produced, it's not directly sent out to the customers, but rather it has a chain that it has to follow from various activities involved in commerce, the main function/role is to satisfy the wants and needs of clients/ customers by making goods and services readily available at the right time and place⁶.

⁴ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-1, INTRODUCTION TO E COMMERCE, page 4, 5/91

⁵ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », Op.cit., p.5/91

⁶ Idem p.5,6/91

Table 1: The Difference between E-commerce and traditional commerce⁷.

Concept for Comparison	E-commerce	Traditional commerce
Meaning	Exchange of information on the internet electronically	It focuses on the buying and selling of products
Method of transaction	Automatic	Manual
Accessibility	24/7	The time is limited
Physical inspection	Not physically inspected before purchase	Physically inspected before purchase
Customer interaction	Its screen to face	Face to face
Scope of business	Reachable worldwide	Particular area
Exchange of information	Uniform platform for exchange	No uniform platform for exchange
Resource focus	Demand side	Supply side
Delivery of goods	Time consuming	Instantly
Payment	Credit card, visa, fund transfers	Cash, cheques, credit cards
Marketing	One to one	One way
Business relationship	End to end	Linear

Source; MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-1, INTRODUCTION TO E COMMERCE, page 6-7/91

1.3. Characteristics/ Features of E-commerce⁸.

Electronic commerce or e-Commerce is referred to as the process of buying and selling of goods or services through electronic means for example the Internet or mobile phone applications. It also refers to the process of creation, marketing, servicing and payment of goods and services. So, Businesses, governments as well as the public have been allowed to participate in transactions related to E-commerce. And the following will therefore elicit the unique characteristics of e-commerce. These unique features of e-commerce technology include:

1.3.1. Ubiquity; E-Commerce is ubiquitous, it is available just about everywhere and at all times by using internet and Wi-Fi hotspot such as airport, coffee cafe and hill station places. Consumer can connect it to the Internet at any time, including at their homes, their offices, on their video game systems with an Internet connection and mobile phone devices. E-Commerce is ubiquitous technology which is available everywhere Moreover, individuals who have cell phones with data capabilities can access the Internet without a Wi-Fi connection.

1.3.2. Universal standards; The technical standards of the Internet are shared globally all over the world. And this whole online tradition is steadily growing and expanding their features in the world. Therefore, to develop any kind of business, one needs Internet and applications of communication which has made it easier for the business to relate in a more loving and attractive in securing business thus a business' success.

1.3.3. Richness; Users easily have access and are able to utilize text messages and visual and audio components for sending and receiving of information. Any individual is able to see richness of information on a company's blog and if a post contains a video related to a product and hyperlinks that allow him to view or buy the product by sending of the information about that post through text message or email.

1.3.4. Global reach; The potential market size is roughly equal to the size of the online population

⁷ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-1, INTRODUCTION TO E COMMERCE, page 7/91

⁸ <https://backup.pondiuni.edu.in>E-Commerce.PDF>, page 6-7

of the world. E-Commerce Technology has seamlessly stretched all over the traditional cultural and national boundaries and has enabled accessibility worldwide to its clients. The websites of E-commerce have the ability to translate the multilingual websites thereby allowing accessibility to visitors all over the world, buying of the products and making business interactions.

1.3.5. Interactivity; E-commerce technologies have allowed two-way communication between the merchant/supplier and the customer/client. And as a result, e-Commerce technologies have adjusted to the experience of each individual. Such as, while shopping online, an individual has ability to view different angles of some items, also adding products into a virtual shopping cart, checking out by inputting his information of payment and then submitting the order.

1.3.6. Personalization; Technologies within e-Commerce allow for the personalization and customization of marketing messages that groups or individuals receive. An example of personalization includes product recommendations based on a user's search history on a Web site that allows individuals to create an account

1.3.7. Density of information; E-commerce has reduced the cost of storing, processing and communicating of information, and at the same time, there's accuracy and increase in the timeliness hence making information accurate, less expensive and plentiful. For example, the online shopping process has allowed a company to receive personal, shipping, billing and payment information from a customer all at once and sending the information of the customer to the appropriate departments in a matter of seconds.

1.3.8. Social technology; The technology of E-commerce has been able to tie up the application social media networking thus providing the best sources of content through sharing of technology and e-Marketing systems. One is also able to share one's content or data easily in just one click⁹.

1.4. The Advantages of E-commerce¹⁰.

This is classified into three main categories namely Organizations, Consumers and Society.

1.4.1. To Organizations.

-E-commerce has helped to reduce paperwork.

-E-commerce has helped in providing better customer services.

-E-commerce has helped in improving the brand image of companies.

- E-commerce has also helped in simplifying the business processes and made them faster and more efficient.

-Through e-commerce, organizations have been able to increase their productivity. This support "the pull" type of supply management and in this type of supply management, the business process starts immediately when a request has come from a customer/client thereby using the just-in-time manufacturing way

- Organizations have been able to expand their markets both nationally or internationally with minimum capital investments using E-commerce. So an organization will thereby locate more customers, suppliers and suitable business partners across the globe easily.

- E-commerce has also helped to ensure that organizations reduce the costs when creating the process, distributing, retrieving and managing of the paper based information through digitizing the information.

1.4.2. To the Society.

- The government has been able to deliver public services such as healthcare, education, social services at a relatable cost and in a way better and improved manner easily through the use of E-commerce.

⁹ PONDICHEERY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 7

¹⁰ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-1, INTRODUCTION TO E COMMERCE, page 7,8/91

- Rural areas have been able to access services and products which aren't available to them using E-commerce.
- Right at the moment, customers do not have the need to travel in order to shop, thus helping to reduce traffic on the road and of course air pollution is less too and this has been so helpful with the use of E-commerce.
- E-commerce has helped to reduce the cost of products thereby allowing the average people to afford the prices of some products.

1.4.3.To the Customers.

- E-Commerce has provided 24/7 or 24*7 support. Customers are able to inquire about a product or products and services and are able to place orders anytime and anywhere from any locations.
- With the application of E-commerce, users have been provided with more options and quicker delivery of products.
- E-commerce has helped to provide options of virtue auctions.
- Through the application of E-commerce, users have been provided with options to make comparisons and be able to select the cheaper and better choices.
- Information has been provided and readily available with the use of E-commerce and therefore a customer can be able to see the relevant and detailed information within seconds, rather than waiting for days or weeks.
- Also E-Commerce has helped to increase competition among organizations and as the result, organizations have the tendency to provide substantial discounts favorable for customers.
- Lastly a customer is about to put review comments about the products and is also able to see what others are buying and also able to see the reviews of other customers before making a final purchase.

1.5. The Disadvantages of E-commerce.

This is classified into 2 different main categories that is to say Technical and Non-Technical.

1.5.1.Technical Disadvantages.

- Sometimes, it's really difficult to differentiate between or integrate an e-commerce application software or website with an already existing application or database.
- There can be lack of system security, reliability or standards leading to poor implement of e-commerce.
- There's always rapidity in change since the software development industry is still evolving.
- There also could be a software/hardware compatibility issues because some e-commerce software maybe incompatible with some already operating system or any other component.

1.5.2.Non-Technical Disadvantages.

- E-commerce applications are still evolving and therefore changing rapidly too.
- There's lack of touch or feel of products during the online shopping which is/causes drawbacks.
- Internet access is also not cheaper at all and this is very inconvenient to use for many potential customers for example those living in remote villages or rural areas.
- It is very difficult to ensure the security or privacy on online transactions.
- Most users may not trust the site given the fact that it's an unknown faceless seller operating so it causes mistrust that makes it so difficult to convince traditional users to switch from physical stores to online stores.
- The cost of creating or building an e-commerce application in-house maybe very high and costly thereby causing delays in launching an e-commerce application due to mistakes or maybe lack of experience¹¹.

¹¹ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-1, INTRODUCTION TO E COMMERCE, page 8,9/91

1.6. Applications used In E-Commerce.

-E-Banking; It has enabled one is to withdraw and deposit money at his/her own convenience¹².

-E-Ticketing; Ticket Purchasing has become has really gotten so easy now that you can make any reservations at the comfort of your home or anywhere and at any time convenient for you as long as you have accessibility to the Internet and you can as well have all the information details according to how you have booked your ticket. A client is able to make payment through credit cards/debit cards for on-line booking of tickets.

-E-Advertising; Internet advertising is an e-commerce application used and has also helped to revolve marketing strategies. Unlike other advertisements such as the print and television medias where all advertisements are stacked together, the viewer has the choice of either viewing or ignoring them.

-E-Trading; Internet made it easy for traders and investors to buy and sell goods and services online. This application has also encouraged the use of on- line brokerage services which have automated the process of buying and selling thus allowing reduction in brokerage charges, making trading transparent because of the accessibility of the information on market prices on-line, and the investor has been enabled to deal at a price viewed immediately¹³.

-E-Post; E-mail is the fastest means of communication. Sending and receiving of any information through e- mail, needs the use of a computer with Internet connectivity and the e-mail account of the sender and receiver. Unfortunately, rural and other remote areas have not been able to access this kind of technology. So, in order to bridge this gap and extend the benefit of the e-mail facility to the people of rural areas, the Department of Post has introduced the facilities of e-Post thus enabling people to send and receive e-mail through the post offices¹⁴.

1.6.1. E-Commerce has also provided support services such as¹⁵;

- Electronic checks (e-checks). These are quite similar to the regular checks and are used mostly in B2B (Business-to-Business).

- Electronic credit cards. These have made it possible to charge payments made online to one's credit card account.

- Purchasing cards, the B2B model is equivalent of electronic credit cards.

- Electronic cash (e-cash). This seems to appear in three major forms: stored-value cards, smart-cards, and person-to-person payments.

- Electronic Bill Presentment and Payments. These have allowed customers/clients to pay for their recurring monthly bills like telephone, utilities, credit cards and other online.

- E-wallets. These are mechanisms that have been able to provide security measures to EC purchasing and These wallets store the financial information of the buyer, including their credit card number, shipping, information, and more.

- Virtual credit cards. They are services that have been given ability to allow one to shop with an ID number and a password instead of with a credit card number.

- e-infrastructure. It's used by (mostly technology consultants, system developers and integrators, hosting, security, and networks)

- e-process. It is used mainly for payments and logistics.

- e-markets. These are (mostly used for marketing and advertising).

- e-communities. (Different audiences and business partners

- e-services (CRM, PRM, and directory services)

¹² PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 68

¹³ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 70

¹⁴ Idem p.71

¹⁵ Tilak Maharashtra Vidyapeeth, "Introduction to E. Commerce", page 43

- e-content. This is basically for entertainment and it's supplied by content providers.

2.E-Marketing.

2.1.Definition:

E-Marketing refers to the process of marketing activities and achieving the objectives of marketing via electronic medium. It may be referred to as an economic process that involves the usage of computer, internet and other electronic systems and network, where the products are exchanged and their price are determined by their values.

E-marketing means the usage of digital technologies to help in selling the products. These technologies are of a very valuable complement in traditional marketing methods. Though businesses will always continue to make usage of traditional marketing methods for example advertisement and direct mail. E-Marketing has also added a whole new element to the marketing mix and Many businesses have produced great results with E-Marketing because Its flexible and cost-effective nature thus making it suitable for small firms too¹⁶.

2.2.Objectives of E-Marketing¹⁷.

Different businesses develop different objectives of E-Marketing depending on their individual situations. A useful framework for developing effective objectives of E-Marketing is the five S's framework, which are as follows;

1. Sell – its usage of the internet to market products and services
2. Serve – it's the using of the internet to provide customer service.
3. Speak – it's using the internet to pass on information to customers through speech.
4. Save –it is usage of the internet to deduct costs.
5. Sizzle –it's branding of products using the internet.

2.3.E-Marketing Importance¹⁸.

E-Marketing has given accessibility to the mass market at a very affordable price and unlike TV or print advertisement that has allowed truly personalized marketing.

The following are the specific roles of E-Marketing which are as follows;

- **Global reach;** A website can easily be reached out by anyone in the world who has access to internet. This has helped in finding new markets and competition at a global level with a small investment.
- **Lower cost;** A properly planned and effectively targeted campaign can reach the right customers at a much lower cost than traditional marketing methods.
- It's an all Round the Clock;** With a website, customers are able to find out about products even if the office is closed.
- Personalization;** Whenever the customer database is linked to the website, whenever someone visits the site, you can greet them with targeted offers. The more they buy, the more you can refine your customer profile and market effectively.
- **One-to-one marketing;** E-Marketing has helped companies/suppliers in reaching out to people who want to know more information about your products and services instantly.
- Better conversion rates;** If there is a website, then ever your customers are only a few clicks away from completing a purchase. Better conversion rate Unlike other media which require people to get up

¹⁶ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code: BCOM2005), page 55

¹⁷ <https://backup.pondiuni.edu.in>E-Commerce.PDF>, p.55-56

¹⁸ idem p.56-57

and make a phone call, post a letter or go to a shop, E-Marketing is seamless. With all these aspects E-Marketing has the potential to add more sales.

- Instant information; One of the most important advantages is the speedy availability of the information. The clients/users can easily get information by navigating the internet, about the products that they want to purchase; besides, they can check the information at any time.

-Savings; This has allowed the companies to save money, since the online marketing campaigns don't really require large sums to invest.

-Scope for expansion; It has helped in creating more operations from a local market to national and international markets at the same time, offered almost possibilities for expansion.

2.4.Disadvantages of E-Marketing.

-Slow internet connections can cause difficulties. If the companies that have built too complex or too large websites, it usually takes users a very long time to check or download them and thus this will cause them to be very bored and log out.

-The e-commerce doesn't allow the user "to touch" the merchandise before purchasing it. Because of this, some salesmen are starting to guarantee the possibility of returning the product.

- Many users still do not trust in the electronic methods of payment and because of this most clients give up from purchasing online.

-One of the major disadvantages is the lack of confidence and hence causing mistrusts among users because of the constant virtual promotions that always appear as frauds thus an aspect causing deterioration in the image and reputation of honest companies¹⁹.

2.5.The E-Marketing Mix.

The marketing mix can be synthesized in the expression of "the 4 P's", standing for Product, Price, Place and Promotion.

2.5.1.Product;

The very first element of the marketing mix is Product and this involves investigating and carrying out research on the potential customers' needs in order to be able to develop products to satisfy these needs. A classic definition of the "product" notion is that of Philip Kotler: a product refers to anything that can be easily offered on the marketplace, with the purpose of capturing interest, purchase, usage or consumption, as long as it is able satisfy a need or fulfil a wish. A product can be either a physical object, service, person, place, organization or idea. The e-marketing works in many cases with non-physical products, and is situated more on the intangible, virtual side²⁰

2.5.2.Price;

Price is also an extremely important element of the marketing mix, because it is the only one with the ability of generating a turnover for the organization. When looking more deeply into the interactions between the 4 P's of the marketing mix, one must observe that Price is a very supportive element for the remaining 3 P's, because it costs to produce and design a Product, it costs to distribute it (Place) and definitely it costs to Promote it²¹.

2.5.3.Place;

Traditionally, the place element refers to how an organization will choose how to distribute the product / service they are offering to the final consumer in order to attain an overall marketing objectives efficiently.

¹⁹ <https://backup.pondiuni.edu.in>E-Commerce.PDF>, p.57

²⁰ PONDICHERRY UNIVERSIRTY, « E-Commerce », op. Cit, p.58

²¹ <https://backup.pondiuni.edu.in>E-Commerce.PDF>, p.60

A closer look into the marketing mix reveals that the biggest impact of the internet is upon the element of place, for the simple reason that the internet has a global reach²².

2.5.4.Promotion;

The promotion as part of the marketing mix refers to the usage of communications in marketing by informing the audience about an organization and its products. Also, the internet has offered plenty of new channels of communications in marketing through informing customers and assisting during the cycle of purchasing. Internet has introduced technologies to find new ways of improving and sustaining advertisement activities, promoting sales, public relations, or proceeding to direct marketing campaigns with the use of e-mail or websites.

The promotion element of a marketing plan has helped to require taking strategic decisions about investment in the online communications mix²³.

Conclusion.

Due to generations evolvment and technology advancement, there has been development in the e-marketing field where businesses are no longer limited by the traditional marketing techniques. For businesses and entrepreneurs who want to stay on top of the freshest and most attractive deals and on going sales in the world, e - marketing is a necessity not a choice. Despite the fact that e - marketing has few disadvantages and limitations, it is proved that it's advantages can boost any business up towards the most fantastic and profitable market and customers, and also provides companies with the chances of establishing the position in global market and thus reaching the greater success and achievements in the long term.

Section 2; Procedure for developing e-commerce strategies.

In this area of research, e-commerce has had a variety of facets that have been expanded from economic and legal infrastructure over the standards of software and platforms to applications horizontally (and hence these are specified for certain roles) and applications vertically as well that have been used to address the necessities of certainly some business sectors.

In this section, the electronic contracting as a horizontal transaction supports the role/function. This Electronic contracting can be referred to as the complete process which has been required to attain a business relationship supported legally and has to accompany an electronic contract that has been represented commonly and neutrally for all obligations that have been agreed on by concerned parties.

2.1.Purchase Procedures:

Purchasing refers to the process that a business or organization has to use in order to attain goods and services to have their goals accomplished. However, there are various organizations that have made attempts to set standards in the process of Purchasing, and processes that have to change grossly among organizations. Purchasing has been part of the larger process of procurement and thereby including expedition, high quality goods from suppliers, transportation and logistics.

Typically a purchase process comprises 7 steps that have to be followed and they are as follows;

2.1.1.Determination of the purchase budget.

Here, the purchase manager has to prepare/set a purchase budget for the forthcoming financial year. This Purchase budget has to be prepared with the help of the department of production planning. This has to contain information well detailed concerning the quantity that has to be purchased, the quality of materials, the time of purchasing and the procurement sources. Also a schedule/planning for

²² Idem p.62

²³ Idem p.63

materials and necessary components for a variety of jobs, known as bill of materials, and have been prescribed for the working out details of the budget of purchase. This bill of materials has to be helpful in the control exercise over the usage of materials²⁴.

2.1.2. Receipt of Purchase Requisition.

The purchasing officer has to initiate an action for the purchasing of only materials when a request for the same materials have been received. The storekeeper and heads of department therefore go ahead to send slips of the request/requisition to the department of purchase to give the details of the requested materials, through their departments. the Purchase requisition is referred to as a form that has to be used as a formal request to the department of purchase in order to buy /purchase materials. This form has to be prepared by the store keeper in order to regulate the materials in stock and also by the heads of department in order to avoid stocking those specified materials as regular items. The storekeeper therefore has to know when an action or fresh procurements have been initiated and he therefore will send the requisition when the level of re-ordering the materials has reached.

The storekeeper still will retain a copy of the requisition with him just for reference in the future. It is on the basis of the requisition of purchasing that the materials have been ordered.

2.1.3. Determination of the sources of supply.

The purchase manager has to keep in contact with the several suppliers of materials. The quotations for the purchasing of the specified items will then be invited.

After the quotations have been received, a comparative study will then be made in regard to the terms and conditions that have been offered. The factors to be considered will include the pricing, the quantity, the quality, the delivery time, the payment terms, discount for the trade/trade discount and the suppliers' reputation and therefore after the various factors have been looked through, a final decision will then be taken about who will supply and the goods.

2.1.4. Placing Orders.

After making a selection of a supplier, a formal purchase order is therefore sent in order for goods to be supplied. An order of purchase is again sent on a form printed out and authorized duly by the purchasing manager. This purchase order has to contain details of the goods such as the quantity, the quality, mode of delivering the goods, the price of the goods, the terms of paying and so on and so forth²⁵. This order of purchase is used to authorize the seller/ vendor in order to dispatch the specific goods and it is also used to establish a relationship between the buyer and the seller contractually.

2.1.5. Follow up of the purchase order.

A purchase order normally has to contain a date in which the delivery of the goods is sent. It is therefore in the interest of the company that the goods have been received in time and allowing the flow of materials which are kept uninterruptedly. Also, the delivery date of the goods is set by the supplier in order to be reminded and thus the necessity of a follow-up of the order of purchase in order to receive the stock of goods in time²⁶.

2.1.6. Receipt and Inspection of materials.

In big concerns, the task of receiving materials has to be allocated to the department of purchasing yet

²⁴ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-5, INTRODUCTION TO E COMMERCE, page 59/91

²⁵ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-5, INTRODUCTION TO E COMMERCE, page 60/91

²⁶ E Commerce...vithravani.pdf, p.60/91

in small concerns, this work of receipt and material inspection is usually done by the storekeeper. After goods have been received, inspection is done after unpacking them to find out if the quantity received is equivalent to that given in the delivery challans. And then if there's any discrepancy in the items, a report is therefore sent to the department of purchase. The classification and the quality of the goods is also inspected and checked in this particular stage²⁷.

2.1.7. Checking Invoices.

Lastly, the purchase department has to cross check if the invoices that have been sent by the company matches that if its own records. The quantity, the quality of the goods, the price of these goods specified and the payment terms and so on and so forth are equivalent to those in the order of purchase. And after full checking is made, the invoices are therefore sent to the accounting department in order to facilitate the payment²⁸.

2.2. Sales Procedures

A sales procedure is referred to as a set of repeatable steps that a sales person has to take in order to consider a prospective buyer from the early stage of creating awareness in order to close a sale. A sales procedure comprises 7 steps and they are as follows;

2.2.1. Prospecting.

This is the first step in the sales procedure and it's called Prospecting. So, in this stage, potential customers are found and the seller determines if they need a product or service and also if they are able to afford them whenever offered. Also, evaluation is done to find out if the clients or customers are in need of the products or services and are able to afford them, and hence Qualifying.

In modern sales, it's not enough to find one prospect at a company. There is an average of customers stakeholders that are involved in a purchase typically, so one will be able to practice in multi-threading or connect with multiple makers in decision on the side of purchasing. Also account maps have been made effective in a way to identify the buyer.

2.2.2. Preparation.

In this second stage, a preparation is made to initially contact a potential customer, research about the market is carried out, and all the relevant information regarding a product or service is then collected. At this particular point, a sales presentation is developed and tailored to potential clients or customers about their needs particularly.

2.2.3. Approach.

In this stage if Approach, the seller will make first contact with his clients. Sometimes it might be a face-to-face meeting or over the phone. There are 3 common methods of approach involved here and that is to say;

Approach; this is where the vendor presents his potential clients with a gift in the beginning of their interaction.

Question approach; this is a method of approach where questions are asked concerning the prospects of interest.

Product approach; this is a method of approach where a sample of the prospect is given a free try in

²⁷ idem p.60/91

²⁸ Idem p.60-61/91

order to make a review and evaluate the services of the vendor.

Diving deeper into several approaches of sales, a vendor will make it of great use to start a relationship off on the right foot.

2.2.4.Presentation.

In this phase of presentation, a vendor will exhibit actively how his products or services will meet the needs of his potential customers.

Presentation is used to imply the usage of PowerPoint and given a sales spiel but it doesn't have to always be that way. The vendor has to always listen to their customers' needs actively and then act and react accordingly.

2.2.5.Handling Objections.

This is the stage that is mostly underrated of the seven steps of a sales procedure and it's called Handling objections. This is where a seller will have to listen to client's concerns of Prospect and equally address them. It's a stage where a lot of sales people drop out of the process unsuccessful. About 44% of the sales people will abandon pursuit after just one rejection, 22% after two rejections, 14% after three rejections and 12% after four rejections, although 80% of the sales will have to require at least five follow ups in order to convert. Handling objections successfully and alleviating concerns will separate good sales people from bad and great from good.

And a flowchart is therefore used to map out objections and also linked to relevant collateral.

2.2.6.Closing.

In this stage of Closing, the vendor will get to make a decision based on the client in order to move forward depending on the vendor's business and will have to try one of these 3 techniques of closing. Alternative choice close; A sale is assumed and thereby offered the prospect of a choice where both options close the sale. For example: "Will you be paying the whole fee up front or in installments?" Or "Will that be cash or charge or cheque?"

Extra inducement close; Something extra is offered in order to get the prospect to close. For example a service free for a month or a discount

Standing room only close; An urgency is created in a way to express that time is essential. For example:" the price will be going up after this month "or "we only have 6 spots left"²⁹.

2.2.7.Follow up.

Once the sale has been closed, the job of the vendor is not yet finished. This stage of follow up has helped to keep the vendor in contact with customers he has closed, not only for potential businesses repeatedly but also for referrals as well. And since the current customers have been retained several times, less costly than having the need to acquire new ones and having to maintain relationships too which is key³⁰.

2.3.Supply Chain Management³¹.

Supply Chain management is referred to as the taking control of the flow of goods and services inclusive of all the procedures from transformation of raw materials into finished goods ready for consumption. It has involved the streamlining actively of the supply side activities of a business

²⁹ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-5, INTRODUCTION TO E COMMERCE, page 62/91

³⁰ MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », op. Cit, p.61-62/91

³¹ Idem p.63/91

thereby maximizing the values of customers and gaining advantage in the market place competitively.

2.3.1.Objectives of the SCM.

A supply chain is designed well and therefore expected to support the objectives strategically by:

- Improving the performances of customers services.
- Solving the problems of suppliers beyond their levels.
- Controlling the quantity of the products
- Minimizing the total cost of operation and procurement
- Reducing the invention of pre and post production.
- Enabling flexibility in planning and controlling procedures.
- Achieving efficiency maximumly through the usage of labour, capital and plant via the company.

2.3.2.Importance of the SCM.

The SCM is well known to be part of most businesses integrally and it's essential for the success of a company and satisfaction of the customers. This SCM is mainly important for:

- **Improving the services offered to customers** by delivering the right quantity and quality of goods and services, delivering goods and services to customers on time by ensuring that customers receive the correct product mix and quantity thus ensuring that customers get their products in the right time frame and lastly offering after sales services to make sure that customers have gotten the services they had requested for.
- **Reducing the costs of production by decreasing the cost of purchasing** because most companies rather prefer distributing their raw materials costly and quickly in order to avoid expensive inventory and by decreasing the cost of production as well thereby avoiding any costs that might occur due to the unnecessary delays³².

2.3.3. Benefits of the SCM³³.

- It has enabled better collaboration;** The flow of information is a challenge that most companies face prominently because of lack of an automated flow across the supply chain thereby allowing integration of software to solve and remove bottle necks and thus allowing the sharing of information hence providing a bigger picture to view of the supply chain from one end to the other.
- It has ensured improvement of quality control;** Companies that have had a great control not only on their direct suppliers but also on the suppliers of their suppliers and hence benefitting from improved quality control through implementing a management operating system (MOS) in order to monitor the indicators to key performances.
- It has helped to reduce overhead costs** by companies demanding for accuracy in prescriptions thereby reducing the overhead costs associated with the invention of slow moving stores, invention of low velocity for stocking thus making room for higher velocity and invention for more revenue production.
- It has encouraged improvement in the flow of cash.** This has allowed companies to make smarter decisions by choosing the right business partners, making accurate prescriptions, responding to the changes of market and demand thereby reducing disruptions in the supply chain and also improving on the company's bottom line.
- It has ensured improvement in risk mitigation** by making analysis on bigger picture and granular supply chain data thereby revealing the potential risks and thus enabling suppliers to put back

³² MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-5, INTRODUCTION TO E COMMERCE, page 64/91

³³ Idem p.64, 65, 66/91

up plans in place to respond readily to situations that come unexpectedly through taking proactive actions, controlling issues on quality and eviction of negative impacts.

-It has ensured increase in the efficiency rates through having real time data about the available raw materials and delays in manufacturing thus allowing a company to implement backup plans such as sourcing materials from a backup supplier and also preventing further delays.

2.3.4. Disadvantages of the SCM.

-Lack of coordination among departments. This is one of the biggest disadvantages of the SCM in a way that it only works if there is coordination done properly among all departments of the company and if the departments are at loggerheads than the system, it will thus lead to failure.

-It is complicated. When there are very many departments involved, complications arise thereby causing hampers on the normal working of the company aside workers and employees as well feeling insecure and demotivated.

-Value Chain. A value chain is referred to as a business model that has to describe the range of activities fully needed in order to create goods and services.

So for a company that produces goods, a value chain consists of steps that have to be taken in order to bring a product from conception to distribution and everything in between such as procurement of raw materials, manufacturing functions and activities of marketing hence a disadvantage³⁴.

Conclusion;

All thanks to the rapidity in the development of new technologies, effective integration of companies through the digital dimensions thus responding to new customers

It is also of importance to point out whenever consumers are satisfied with online purchasing experiences is a customer that will be easily retained

The satisfaction of customers is presently the most important issue for the merchants online, hence resulting from both perceived quality of goods purchased and to perceived quality of the e-commerce site

³⁴MS. BHAVITHRAVANI, « ECOMMERCE~PKCM33 », UNIT-5, INTRODUCTION TO E COMMERCE, page 67/91

CHAPTER 2: THE MEANS OF PAYMENT IMPLEMENTED BY COMPANIES TO SECURE THEIR CUSTOMERS.

Introduction

E-Commerce is fast growing and therefore the need to use the electronic means of payment to do transactions because of its rapidity and the development of electronic commerce globally. It is also encouraged for companies to adopt some of these means of payment given the fact that most clients would prefer to do their transactions online because its safe and time saving too and therefore have the need to implement these means of payment in order to secure their customers.

This chapter consists of two sections.

The first section talks about the payment methods used in e-commerce and the second section is concerned about the security of online payment methods used by companies. Each of these sections have detailed informed with their objectives

Section 1: The payment methods used in e-commerce.

Buying and selling of goods and services has been made easy over the internet which has helped in the growth of commerce electronically and has been it possible and convenient for the provision of electronic payment services in the way the financial transactions have been made effective. Generally thinking, electronic payments are defined as online transactions made over the internet and there are various forms of electronic payments. As technology is gradually developing, the range of devices and processes used to do transactions electronically has continued to increase yet the percentage of cash and cheque transactions have continued to decrease³⁵.

This section will help one understand the concept of e-payment system, learning more about the variety of e-payments types and also understand the process of the e-payment system.

1.1. Definition of Electronic Payment³⁶.

Electronic Payment refers to an exchange a financially that has to take place online between buyers and sellers. The content of this exchange is usually some form of digital financial instrument (such as encrypted credit card numbers, electronic cheques or digital cash) that have been backed up by a bank or an intermediary, or by a legal tender.

E-payment is a subset of an e-commerce transaction inclusive of electronic payment for buying and selling goods or services that have been offered through the Internet.

1.1.1.Risks in the Electronic Payment systems³⁷.

a).Customer's risks.

- Theft of credentials or password
- Vendors being dishonest.
- Disputation over transaction
- Use of Inappropriate transaction details

b).Vendor's risks.

- Forgery or use of copied instruments
- Disputation of charges
- Insufficiency of funds in the account of the customer.
- The redistribution of purchased items is highly unauthorized.

³⁵ PONDICHERY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 88

³⁶ <https://backup.pondiuni.edu.in>E-Commerce.PDF>, p.89

³⁷ Idem p.89-89

c).Electronic payments Issues.

- Security transfer across internet
- High reliability: there's no single point of failure.
- transactions are automatic
- Some buyers are anonymous
- Efficiency Economically and computationally thus allowing micropayments
- It is easily flexible across different methods

1.2.Types of E-Payment systems.

Electronic payment systems are successful in the fields of banking, retail, health care, on-line markets, and even government. Organizations have been motivated by the need to deliver products and services more cost effectively and also provide a higher quality of services to customers. The emergence of the electronic payment technology is labelled as electronic funds transfer (EFT). EFT is referred to as the initiation of any transfer of funds through an electronic terminal, telephonic instrument, or computer or magnetic tape in order to facilitate ordering, instruction, or authorization to a financial institution³⁸.

1.2.1.Cards.

The most common and currently used form of payments are Credit cards, debit cards and prepaid cards. The client or business uses a plastic card with a magnetic stripe for all these 3 types of cards. Along with magnetic stripe cards, smart cards have been used for payments. Smart cards are at present overwhelmingly plastic credit cards with an embedded computer chip.

1.2.1.1. Credit Card: Credit card is a small plastic card attached to an account with a unique number. It has also a magnetic strip embodied around it which has been used to read credit card via card readers. Whenever, a customer buys a product using a credit card, the customer is paid by the credit card issuer bank and the customer is given a certain time period after which he/she can pay the credit card bill. It is usually called the credit card monthly payment cycle.

1.2.1.2. Debit Card: Debit card just like the credit card is a small plastic card attached to a bank account with a unique number mapped on it. Therefore, it is a requirement to have a bank account before getting a debit card from the bank. The debit card differs from the credit card in major way that is to say in case of payment through debit card, amount will get deducted from card's bank account immediately and there should be sufficient balance in bank account in order for the transaction to get completed, whereas in case of credit card there is no such compulsion.

1.2.1.3. Smart Card: Smart card is again similar to credit card and debit card in appearance though it has a small microprocessor chip embodied around it. It is of great capacity to store work related to customer or personal information. Smart card is also used for storing money whose reduction is as per usage. Smart card can be used for access only using a customer's PIN. Smart cards are used for security as they store information in encrypted format and are less expensive thereby providing faster processing. Mondex and Visa Cash cards are examples of smart cards³⁹.

1.2.2.E-Money.

E-Money transactions is defined as a situation where payment is done over the network and amount is transferred from one financial body to another without the involvement of a middleman. E-money transactions are very fast, convenient and time saving. Online payments have been done through the use of credit card, debit card or smart card which are also examples of e-money transactions. E-Cash is

³⁸ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), p.90

³⁹ PONDICHERRY UNIVERSITY, « E-Commerce », op. Cit, p.92

another popular example of e-money transactions. Just that in e-cash, both customer and merchant both have to sign up with the bank or company issuing e-cash.

1.2.3. Electronic Fund Transfer.

It is a very popular electronic payment method which involves the transfer of money from one bank account to another. Accounts can be in same bank or different bank but Fund transfer is easily done using ATM (Automated Teller Machine) or computer.

1.2.4. Internet.

This involves the transfer of money by a customer where he or she can make a purchase through the internet online. Consumers and businesses are able to transfer money to third parties from the bank or other account, the clients are also able to use credit, debit and prepaid cards in order to make purchases online⁴⁰.

1.2.5. Mobile Payments.

Mobile phones are currently being used for a limited number of electronic transactions. However, the percentage has seemed to increase likely as manufacturers of mobile phone have been enabled to chip and software in the phone has made it easier for electronic commerce. Consumers are also able to use their mobile phone in order to pay for transactions in several ways. Customers are also able to send an SMS message, transmit a PIN number and also use WAP in order to make payments online or perform other segments of their transaction with the phone⁴¹.

1.2.6. Financial Service Kiosks.

Companies and service providers in various countries, inclusive of Singapore and the US, have been able to set up kiosks that have enabled both financial and non-financial transactions. These kiosks are fixed stations with connectivity to the phone where the customer usually uses a keyboard and television-like screen in order to do a transaction or to have access to information. Kiosks are usually located at convenient public locations such as bus or subway stations, convenient stores or shopping malls, these have enabled payments electronically by individuals who may not have regular accessibility to the internet or mobile phones.

1.2.7. Television Set-Top Boxes and Satellite Receiver.

Specialized boxes have been attached to a television that are used for payments in some locations. The set-top box is attached to the television and a keyboard or other device, and customers are able to make purchases through viewing items on the television. Electronic Payment is made using a credit card or other account. While usage is presently low, it could have been growth substantially in countries with a strong cable or satellite television network.

1.2.8. Biometric Payments.

Payments are made electronically using biometrics that are still largely used in their infancy. Most biometric payments have involved the use of fingerprints as identification and access tool, though companies like Visa International have been piloting voice recognition technology and retina scans that are also under consideration. Essentially, a biometric identifier such as a fingerprint or voice could have replaced the plastic card and more securely identifies the person undertaking the transaction⁴².

⁴⁰ Idem p.93

⁴¹ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 92-93

⁴² PONDICHERRY UNIVERSITY, « E-Commerce », op. Cit, p.94

1.2.9. Electronic Payments Networks.

Various countries have electronic payments networks that customers are able to use in order to make electronic payments. Here the customer can even go online, to a financial service kiosk or use any other front-end devices in order to access their account and make payments to businesses or other individuals⁴³.

1.2.10. Person-to-Person (P2P) Payments.

P2P payments have enabled one individual to pay another individual using an account, a prepaid card or another mechanism that stores value. PayPal in the US, which has been currently purchased by Ebay, is one of the frequently most used P2P mechanisms. P2P payments have also been made through various means, inclusive of services such as PayPal, transfers using card readers, or other. In the future other devices, such as mobile phones or PDAs, could also be used to enable P2P electronic payments⁴⁴.

1.3. Requirements for E-Payments.

For effective and successful E-Payments, the following requirements are very essentials:

- Critical mass;** For a payment scheme to succeed, the number of users is based on dependence, both as regards companies and customers, as financial institutions. Especially merchants or companies playing a crucial role in the development of payment schemes, as their acceptance of e-payment systems has led to the creation of market for such schemes.
- Adoption at the EU-level;** In order to foster cross-border payments in the Internal Market, it is very essential that payment schemes are developed in order to apply across the EU. National payment schemes that are not frequently used will not increase cross-border e-shopping, because foreign customers cannot pay abroad with these national schemes.
- Limited costs;** The cost of using a payment system electronically should be limited to a minimum, in order to increase merchant and customer acceptance. This particularly holds true for low-value transactions, which have facilitated low transaction costs
- User friendly / low effort;** The systems of payment electronically should be user-friendly and able to allow users to customize the system in order to integrate their day-to-day activities and personal financials. Simplicity is key to attaining wide acceptance, such as persuading new users on Internet who lack both experience and confidence to cope with complicated protocols.
- Speed;** The systems of payment electronically should be able to process transactions very fast. Their speed has allowed them to be differentiated from other (offline) payment schemes such as credit cards, which are often subjective to transaction terms of several days.
- Security;** Fraudulent payment card transactions represent losses of approximately 1 billion EUR per year in the SEPA area. Therefore, it is very essential that the systems of e-payment provide a sufficient level of security, both on a technological level as on a psychological level.
- Balance of interests;** The current financial crisis has exhibited the importance of financial control in institutions as instruments of payment which transfer substantial amounts of money, should strictly be regulated, regardless of the fact that they constitute online or offline payment systems. However, there also is a need for balance.

⁴³ Idem p.94

⁴⁴ Idem p.95

-Protection of privacy; Customers will want to have at least the option of remaining anonymous in relation to e-payments with the possibility of cash payments. Moreover, the possibilities of profiling based on financial transaction data should be limited.

-Transparency; Electronic payment schemes must be transparent to customers, particularly with respect to their personal data financially which is being handled by both merchants and financial institutions.

-Predictability; It is required for e-payment system to be generally intelligent, clear and predictable to all involved actors in order for it to adapt legal rules that are effective.

-Trust; Customers and vendors will both refrain from using such e-payment systems if legal laws applied cannot guarantee the protection of their interests and thus application of legal frameworks in order to gain trust from the users.

-Reliability; The legal framework applied to these electronic payments must be consistent in its effects on all participants⁴⁵.

1.4.Digital token-based Payment System⁴⁶.

The digital token-based payment system is a new form of payment system electronically which is based on the use of electronic tokens rather than e-cheque or e-cash. The electronic tokens are being generated by the bank or some financial institutions. Hence, they say that the electronic tokens are equivalent to the cash which are made by the bank.

1.5.Benefits of using an Electronic Payment System⁴⁷.

Many large global organizations are reaping from the benefits of employing an electronic payment system, which include the following;

- Day Sales Outstanding (DSO) Improvements: An electronic payment system has immediately improved the DSO numbers for suppliers by allowing them to receive and process payments electronically from commercial customers.

- Processing Cost Reduction: An electronic payment system comprises a rich feature which has lowered associate time processing by automatically initiating and processing payments.

- Minimize Overdue Payments: An electronic payment system has led to the acceleration of credit and collections by giving customers collections groups and customer service departments have internally been of greater visibility into payment status.

- Simplify Dispute Management: With payment system electronically, companies are able to enjoy improved data accuracy and automated disbursement, receipt and payment processing in order to streamline vendor dispute management.

- Increased Compliance: The electronic payment system has made it easier to track and monitor data through ensuring adherence in order to complex compliance regulations and all business rules.

- Enhanced Security: An electronic payment system is highly secure therefore cardholder data is safeguarded and fraud payment is better prevented than paper-based payments can achieve.

- Improved Workflow Efficiencies: Increased automation is a key feature of a robust electronic payment system thereby enabling less reliance on consumption of time and the processes of manual business less costly.

- Greater Visibility into Financial Supply Chain: Accessibility to reports and comprehensive corporate financial history has given management and other authorized users easy access to snapshots

⁴⁵ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 96, 97, 98

⁴⁶ PONDICHERRY UNIVERSITY, « E-Commerce », op. Cit, p.99, 100

⁴⁷ Idem p.100, 101

and detailed reports by using electronic payment systems thus improvement in decision making and efficiency in the process

1.6.Credit cards as E-Payment system⁴⁸.

Payment cards are all types of plastic cards that consumers have used to make purchases.

-Credit cards: Such as a Visa or a MasterCard, have a preset in the spending limit based on the credit limit of the user.

-Debit cards: are used when removing the amount of the charge from the cardholder's account and transfers it to the seller's bank.

-Charge cards: Such as one from American Express are used and carry no preset in the spending limit.

1.6.1.Types of Credit Cards;

There are two types of credit cards on the market today-

Credit cards are usually issued based on the income level of the customer, credit history, and total wealth. The customer uses these cards when buying goods and services or getting cash from the participating financial institutions. The customer is supposed to pay his or her debts during the payment period otherwise it will lead to accumulation of interest. Two limitations of credit cards are their unsuitability for payments that are very small or very large. It is not cost-justified to use a credit card for small payments. Also because of security issues, these cards have a limit and cannot be used for large transactions excessively.

The two types of credit cards on the market today are:

1. Credit cards issued by credit card companies (such as MasterCard, Visa) and also major banks

2. Credit cards issued by department stores (such as Boyner), oil companies (such as Shell)

Businesses have extremely benefitted from these company cards because they are cheaper for operation. They are also widely issued to and broadly used by a range of customers. Businesses have also offered incentives thereby attracting customers to open an account and get one of these cards.

1.7.Smart card Cash Payment system⁴⁹.

Smart Cards based Electronic Payment System "Smart cards" used are for receiving renewed attention as a mode of payment online. These are essentially credit card sized plastic cards with the memory chips and in most cases, with microprocessors that are embodied around them thereby serving as devices for storage for much greater information than credit cards with inbuilt transaction used for processing capability.

This card contains some kinds of an encrypted key that is used as a comparison to a secret key containing the processor of the user. Some smart cards have provision thereby allowing users to enter a personal identification number (PIN) code. Smart cards have been in use for over the two decades now and have been widely spread in Europe and Asian Countries. Owing to their considerable flexibility, they have been used for functions of a wide range like highway toll payment, as prepaid telephone cards and as stored value debit cards. However, with the emergency of e-commerce, these devices are being viewed increasingly as a particularly appropriate method for executing online payment system considering the greater level of security than credit cards. Comparing to traditional electronic cash system, smart cards based electronic payment systems do not need to maintain a large database in real time. They also consist of advantages, such as anonymity, transfer payment between individual parties and low transactional handling cost of files. Smart cards are also better protected from misuse than credit cards conventionally because the smart card information is encrypted.

⁴⁸ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 101, 102

⁴⁹ Idem p.104-107

1.7.1. Advantages of smart cards:

Some of the advantages of smart cards are;

- Facilitates the storage of information of many types.
- Occupies less space.
- They are portable
- Less costly to issuers and users
- The security is very high.

1.7.2. Disadvantages of smart cards:

- Transaction limit is minimum.
- Infrastructure are of high costs.
- Usage is still very low.
- Lack of standards universally for their design and utilization.

1.8. Micro-Payment system⁵⁰.

A micropayment refers to an e-commerce transaction-type with a low financial amount.

Micropayments are used in purchasing online products and services such as e-books, music and memberships.

A Micropayment is a financial transaction which involves the use of a very small sum of money and occurs online. Micropayments were devised initially to allow the sale of online content and to pay for network services at a very low cost. Micropayments were envisioned to involve currency of small fractions. Micropayments have enabled people to sell content on the Internet thus used as an alternative to advertising revenue.

The term “micropayment” can be referred to as payment of a small sum ranging from a couple of dollars to a fraction of a cent in exchange for intellectual property or web-based content. Micro-payments are a popular form of payment in the sales sector of e-commerce. Many companies have provided the option to pay for transactions less expensively to their clients through financial firms such as PayPal, Visa, Mastercard.

1.8.1. Advantages of Micro-payment system:

- **Anonymity;** Setting up an account online with a micropayment service provider has allowed one to conduct financial transactions online with some anonymity.
- Speed;** Micropayment accounts have allowed quick and convenient purchase of real and virtual goods and services.
- Scalability;** Micropayment systems easily grow to accommodate additional trades and new products or services.
- **Security;** Fewer online transfers of actual payment have led to fewer opportunities for actual theft or abuse because it is much easier to contain the scope of theft or abuse using a micropayment system.

1.8.2. Disadvantages of Micro-payment system:

- **Insecure Data;** The account holder is left vulnerable to more than just the losses from the investment in the account if sensitive account information is compromised, often secondary or tertiary accounts may be compromised as a result.
- **Dishonesty;** If the company processing the payment is dishonest or deceptive, account holders may lose their investment in the micropayment system.

⁵⁰ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 107-110

- **Excessive, Taxes, Fees, and Charges;** Individual transactions might end up costing the buyer more over the long term as individual taxes, fees, and charges, when combined and compared with a single larger purchase thus revealing that the purchases actually cost more if a single large purchase was made.

- **Excessive Maintenance Costs;** It is extraordinarily expensive to audit or review micro transactions because of the explosion in the sheer number. The number of customer disputes over failed or undesired purchases of individuals increase as well is proportional.

1.9.Electronic Cash⁵¹.

Electronic cash is a general term used to describe the attempts of a variety of companies in order to create value storage and exchange system that operates online the same way that government-issued currency operates in the physical world.

Electronic cash (also called e-cash or digital cash) is referred to any value storage and exchange system that has created by a private (non-governmental) entity that does not use paper documents or coins and thereby serving as a substitute for government-issued physical currency.

Electronic Cash (E-Cash) or electronic money have been playing a more significant role in our everyday life because of the rise in the usage of internet. Most of the money today is in electronic form. However, the new invention of tool doesn't mean that it will bring all positive results as nothing is perfect in this world.

1.9.1. Advantages of Electronic Cash⁵².

-Funds can be transferred, purchase stocked and a variety of other services offered, without having to handle physical cash or cheques as long as bank is providing such services online. The significant effect is not having to queue in lines, thus saving time.

-Debit cards and online bill payments have allowed immediate transfer of funds from an individual's personal account to a business's account regardless the designated place (around the globe) by few clicks without any actual paper transfer of money thus bringing convenience to individuals and businessmen.

-Consumers will have greater privacy while shopping using electronic money on the Internet instead of ordinary credit cards because they are effective and eventually meaning lower prices and lower transaction costs, therefore anybody is able to use it, unlike credit cards, and does not require special authorization, Electronic cash transactions are also more effective and less costly than other methods, The distance that an electronic transaction must travel does not affect cost, The fixed cost of hardware to handle electronic cash is nearly zero, Electronic cash does not require that one party have any special authorization.

1.9.2.Disadvantages of Electronic Cash⁵³.

-Security on E-cash and E-Cash transaction are the major concern. Frauds on E-Cash are on the catch recently. So, hackers with good skill are able to hack into bank accounts and illegally retrieve of banking records which has led to a widespread invasion of privacy and has promoted identity theft. There are also many other tricks which include phishing website of certain banks and emails.

-The flow of money and criminal activities are harder to be traced by government. With the continued growth of E-Cash, the flow of money in and out of countries at immediate speed without being traced has weakened the government's ability to monitor and income in tax.

⁵¹ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 110-114

⁵² PONDICHERRY UNIVERSITY, « E-Commerce », op. Cit, p.113

⁵³ Idem p.114

-E-Cash is not used by everyone. Low-income groups without computer and internet accessibility are unable to enjoy the use of E-Cash. This issue shall be resolved in order for E-Cash to be implemented widely.

Conclusion;

Given the above methods of payment used in E-commerce, it is clear that there has been rapid growth and usage of these electronic payment methods especially in European countries unlike for Africa or some African countries where the usage of the payment systems is less simply because of the low development yet it is promising too

Section 2; The security of online payment methods used by companies.

This section will help one understand the online payment methods used by companies and since this section is all about security, it is therefore the role of companies to ensure that the methods of payment they use is secure and safe to be used by the customers too globally

2.1. Concept of E-Security⁵⁴.

E-Security is a part of the Information Security framework applied specifically to the components that affect e-commerce such as Computer Security and Data security. E-commerce and network security are complicated because diligence is needed to prevent loss.

E-security or Information security refers to protection of information against unauthorized disclosure, transfer, modifications, or destruction, it might be accidental or intentional. E-Security is used as a method to secure internet systems from malicious use. It deals with the security of the information (in electronic form) that is greatly used over the Internet. So e-security involves securing both the information and the network through which the information flows.

2.1.1. Importance of E-commerce security⁵⁵.

-Companies have been able to do more and more business on the Web because interactions become faster and less expensive. However, there are many security concerns such as Authentication (knowing who the user is) authorization (giving permission to do what they want), data integrity and encryption (enabling access to information that cannot be altered or read in transit), accountability (holding responsibilities for the actions) and notarization (making agreements with sites that are legally enforceable) have to be considered.

-Today, E-security is very important to businesses and governments. In an organisation, a security exposure might result into possibility of damage in the organizations information and communication systems.

-E-security has to address the security of a company, it has helped to locate its vulnerabilities and supervises the mechanisms that have been implemented in order to protect the on-line services provided by the company, such as keeping adversaries (hackers, malicious users and intruders) from getting into the company's networks, computers and services. Thus, protecting the critical information in electronic form belonging to any private or public sector organization, we need to employ the e-security measures.

2.1.2. Common Pitfalls used in e-commerce⁵⁶.

The security of e-commerce transactions is a critical part towards the ongoing success and development of E-commerce. Inadequate security might result to the loss of customer confidence or the non-availability of site. The pitfalls in e-security are:

⁵⁴ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 179

⁵⁵ PONDICHERRY UNIVERSITY, « E-Commerce », op. Cit, p.180

⁵⁶ Idem p.180-181

1. Hackers gain access to information ; Inadequate security has enabled hackers to gain accessibility to sensitive business data such as price lists, catalogues, intellectual property. The motives may be malicious or gaining competitive knowledge. Hackers may gain accessibility to the information of a business or customers with an aim to committing fraud.

2. Loss of customer confidence ; Security breaches have caused customers to lose confidence in e-commerce service. Lack of customer confidence is fatal to the growth of an online venture.

3. Denial-of-service attacks ; This has prevented accessibility to authorized users, thereby forcing the site to offer services at a reduced level or completely cease operation.

4. No contingency measures in place ; The growth in e-commerce and the rapidity in the rise of the mobile device usage in e-commerce has led to the increase in the threat of cyber crimes. Contingency planning helps to put measures in place thus enabling the systems to continue operating in a crisis.

2.1.3. Need for E-Security⁵⁷.

The areas which need security are network security and intrusion detection.

A). Network security ; Network security are inclusive of systems that protect networks, such as a local area network (LAN) or wide area network (WAN). The different techniques that have been used to create a trusted zone in these networks. Firewalls help to protect the network by giving permission to only specified traffic in order to enter it from the outside (from the Internet, for example). In large organizations, firewalls have also been used to separate internal networks from each other by keeping an intruder in one network from gaining accessibility to another or preventing unauthorized accessibility to certain files by employees. Firewalls have helped in dividing the information technology world into two parts : the inside, trusted zone and the outside, untrusted zone. In order to work effectively, firewall rules and policies must support a business.

B). Intrusion Detection ; Intrusion detection have provided additional layers of protection. It is used in detecting and registering suspicious activity, alerting appropriate personnel and blocking the anomalous behaviour on the network or its hosts. It varies from broad, multipurpose tools to highly specialized tools that help to look for specific features. An example of a broad tool is a network sniffer. Sniffers have been developed for administrators who need to troubleshoot problems, but they have been quickly adapted by hackers to accessibility to information such as passwords and files.

2.1.4. E-Security Tools⁵⁸.

- Firewalls-hardware and software, Digital Signatures, Digital Certificates, Passwords, Public key infrastructure, Encryption Software, Biometrics-retinal scan such as fingerprints, voice, and Locks & Bars are the tools that have been used in securing e-commerce.

2.2. Security for E-Commerce.

As business activity succeed on the Internet, it is very important to consider security by taking into account and addressing and satisfying the stakeholders. Security is very essential in order for any transaction to take place over the internet. Customers have lost faith in e- business because its security is compromised. Security in E-Commerce has dealt with the protection of E- commerce assets such as computers and networks from access that has not been unauthorized, usage, alteration or distribution. Anything that might cause danger to the assets of e-commerce are considered to be threats. Systems that have been connected to the internet are the targets for destruction or tampering of the data stored in them. Certain threats might result into severe financial loss and others might result in loss of

⁵⁷ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 181

⁵⁸ Idem p.181-182

reputation to an individual and to an organization. With the growth in internet use, such incidents can result into loss of trust in computer and networks and also decline the success of public confidence in internet. Therefore security can relate to three general areas in this context ;

- Securing the file /transfer of information.
- Securing transactions.
- Securing enterprise networks used to support Web commerce.

2.2.1.Fundamentals of Computer Security.

The following are the fundamental goals in Computer security :

- Confidentiality ; Unauthorized users should not have access to information and transmission should not be intercepted.
- Integrity ; Information should not be interfered with during its transmission over the network.
- Availability ; Information should be readily available to users wherever and whenever its required within time limit specified.
- Authenticity ; There is need for information to be authenticated by the user before giving him/her accessibility to the required information.
- Non-Reputability ; Information is protected against denial of order or denial of payment. Once a message is sent by the sender, he or she should not able to deny the sending of the message. Likewise the recipient of the message should not be able to deny receipt.
- Encryption ; Information should be encrypted and decrypted by only by authorized user.
- Auditability ; The recorded data should be audited for integrity requirements.
- Fraud ; Another issue to be tackled is fraud, whereby the buyer has to simply supply Out-of-date or incorrect credit card information⁵⁹.

2.3.Security Design⁶⁰.

All security solutions need to begin with a policy and some of the basic security policy questions that must be answered are as follosw ;

- What are the most critical components but vulnerable?
- What information is very confidential and needs to be protected?
- How is confidentiality ensured?
- What authentication system is used?
- What are the intrusion detection systems that should be installed?
- Who has authority and responsibility over the installment and configuration of critical e-business infrastructure?
- What plans should be in place in order to ensure continuity or minimum disruption of service?

2.4.Analysing the Risks⁶¹.

There are things that have made the use of the internet more secure irrespective of the size of business. First, in order to undertake a risk assessment, take how to use or plan to use the internet into account. Considering the types of transactions conducted and identified the risks associated such as fraud, impersonation and theft. Then assessing the magnitude of these risks, focusing on the potential for damage to the business. And finally, identifying how to manage these risks, that is to say the specific measures used to protect against them.

The measures of risk management will depend on the plan to use the Internet if the internet is used in

⁵⁹ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 182-183

⁶⁰ PONDICHERRY UNIVERSITY, « E-Commerce », op. Cit, p.183

⁶¹ Idem p.185

sending and receiving emails and accessibility to information only, the measures may be more basic and they are as follows ;

- Installation of protective anti-virus and personal firewall software
- Ensuring that the software is kept up to date by installing software « patches »
- Usage of passwords that cannot be easily forged with a combination of letters, numbers and symbols
- Exercising caution when it comes to opening attachments to emails.

An online catalogue with transaction facilities, more sophisticated and protective measures should be taken incase the advanced e-commerce capabilities are required. Developing a formal IT security policy for operations and a response plan for computer security incidents may be a necessity. Some organizations have chosen to outsource their security arrangements to specialist service providers. There is need to consider arrangements in order to authenticate trading partners and securing transactions incase an advanced capability is being implemented. There are technologies of different types which can help. Everyone uses a plastic card and a Personal Identification Number (PIN) in order to access funds in a bank account.

Frankly speaking, authentication relies on one or more of the following:

- Something you know (such as a Password or PIN)
- Something you have (such as a smart card or a hardware token)
- Something you are (such as a fingerprint or iris scan).

Authentication is not the same as security which it is very important to note. Authentication have to operate in conjunction with an organization's overall security framework.

Anecdotal evidence has indicated that the main risks are associated with e-commerce concern hackers, viruses, and interception of credit card numbers travelling over telecommunication lines. Information, Technology and Business are the risks in three primary areas.

2.4.1.Types of Risks⁶²:

2.4.1.1. Information risks ; stem from information being published and contained in web sites and associated with the conduct of e-commerce.

Examples of Information Risk.

- Web publisher to libel, defamation of character, slander are the content exposed on the web page.
- Stemming from posted textual content are suited by copyright infringement and invasion of privacy.
- Stemming from digital scanning and morphing are suited by copyright infringement and invasion of privacy.
- Web site developpers use copyright, patent, or trade secret infringement violations.
- After unauthorized accessibility to a web site, online information concerning employees or customers is stolen, damaged or released without authorization.
- Flight of intellectual property because of employees moving to competitors.

2.4.1.2. Technology risks inclusive of risks involving hardware, software, telecommunications and databases. It might result from the misuse of technology or inappropriate usage of technologies.

Examples of Technology Risk

- Negligent errors or omissions in software design
- Unauthorized accessibility to a web site,
- Infection of a web site with computer viruses.
- Crashing of the Internet service provider (ISP) server.
- Unauthorized accessibility caused by software error and omission of risks.
- Software content risk violating a copyright or is libelous.

⁶² PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 186, 187, 188

- Breaching in security for online payments caused by third party intercepted by credit card information in transit.
- Interceptation and copying or changing non-credit card information during transmission.
- Risk of integrating improperly in e-commerce system with internal databases.
- Risk of integrating improperly in e-commerce system with internal operational processes.
- Risk caused by poor web site design manifesting themselves in long response times.
- Inability of customer or supplier computers in order to handle graphical downloads.

2.4.1.3. Business risks are mainly about the relationships between customers and suppliers and risks associated with products and services being marketed and distributed over the Internet. They are inclusive risks associated with managerial aspects of the business such as personnel and contractual relations.

Examples of Business Risk

- Web publisher to libel, defamation of character, slander are the content exposed on the web page.
- Web site developers and disputes between developers and clients are risks related to payment.
- Lack of maintenance on the already existing web pages.
- Impact on business due to intellectual property lost because of employees moving to competitors
- Changes in the relationships of suppliers such as accessibility to data, ownership of data, strategy of distribution and tactics of marketing.
- Changes in the relationships of customer such as accessibility to data, ownership of data, strategy of distribution and tactics of marketing.
- Products out-of-stock caused by poor communication with operations.
- High costs of shipping required for distribution.
- Inconvenient return policies.

2.4.2.How to minimize Security Threats.

2.4.2.1. Performing a risk assessment: Conducting an investigation about the list of information assets and their values to the firm.

2.4.2.2. Developing a security policy : A written statement on :

- What assets to protect from whom?
- Why are these assets being protected?
- Who is responsible for the protection?
- Which behaviours are acceptable and unacceptable?

2.4.2.3. Developing an implementation plan in order to set of action steps so as to achieve security goals.

2.4.2.4. Creating a security organization to a unit in order to administer the security policy.

2.4.2.5. Performing a security audit with a routine review of access logs and evaluation of security procedures⁶³.

2.5.E-Security protocols⁶⁴.

The following are the popular protocols used over the internet in ensuring security of transactions made over the internet.

2.5.1. Secure Socket Layer (SSL) ; This is the most commonly and widely used protocol across the internet. It has met the following security requirements :

- Authentication.

⁶³ PONDICHERRY UNIVERSITY, « E-Commerce », (Paper Code : BCOM2005), page 190-191

⁶⁴ Idem p.193-194

- Encryption.
- Integrity.
- Non-reputability.

2.5.2. Secure Hypertext Transfer Protocol (SHTTP) ; SHTTP has extended the HTTP internet protocol with public key encryption, authentication and digital signature over the internet. Secure HTTP has supported multiple mechanisms of security thus providing security to end users. SHTTP works by negotiating encryption scheme types being used between client and server.

2.5.3. Secure Electronic Transaction (SET) ; This is a secure protocol developed by MasterCard and Visa in collaboration. Theoretically, this is the best security protocol and has the following components.

2.5.3.1. Card Holder's Digital Wallet Software ; Digital Wallet permits the card holder to make secure purchases online via point and click interface.

2.5.3.2. Merchant Software ; This software has helped merchants to communicate with potential customers and financial institutions in a secure manner.

2.5.3.3. Payment Gateway Server Software ; Payment gateway has helped to provide automatic and standard payment process. It has supported the process for merchant's certificate request.

2.5.3.4. Certificate Authority Software ; This software is used in financial institutions for issuing digital certificates to card holders and merchants and enabling them to register their account agreements for secure electronic commerce.

Security is therefore one of the most important elements and plays a very big role in e-commerce because firstly consumers would like to purchase products where their safety is of priority and having gone through the above concerning security, you will understand that without security, e-commerce growth will be low and hence this conclusion

Conclusion.

It is therefore very evident that electronic payments are very essential for the completion of e-commerce transactions. E-Payment is any kind of non-cash payment because it has allowed the transfer of money through internet and other electronic networks. E-payment comprises different types of electronic payments that are available for carrying out e-commerce transactions. Some of these are card based and others are electronic fund transfers. Therefore, it is very essential for all business organizations to know about the operations in the system of e-payment. This unit has helped to provide an overview of different e-payments systems in vogue for the benefit of users.

E-Security is also a part of the Information Security framework which is specifically applied to the components that have affected e-commerce that inclusive of Computer Security, Data security and other wider realms of the Information Security framework. E-security has its own problems. E-commerce and network security are complicated because diligence is needed to prevent loss. Firewalls help to protect network by giving permission to only specified traffic so as to enter it from the outside (from the Internet). Because of the Internet, firewalls have played an important role in modern business technologies. A major weakness of firewalls and intrusion detection systems is that they might not be managed continuously. Security vendors have made great progress in developing tools that extend protected network into the open e-commerce world ; detect would-be intruders ; hold users accountable for their actions ; stop malicious code encrypted in messages from reaching their targets ; and letting the owner of the Web site or application server, decide who gets to access what.

CHAPTER 3 : THE STUDY OF E-COMMERCE IN ALGERIA.

Introduction.

The emergence of the information society or the digital age known for its flexibility, speed and technology is one of the major changes of the last decades which is without doubt. The development of the lives and the Behaviors of individuals and organisations has caused major economic upheavals. Qin(2009) stated that among these changes e-commerce had brought about the internet which is one of the most scientific and significant accomplishments since the industrial revolution.

It is still considered an innovation in less developed countries.(Almoussa, 2013) even after the 2019 when e-commerce was familiarised with a popular retail channel in developed countries. However, e-commerce has been prédictée to be a new driver of economic growth for developing countries (Humphrey, Mansell, Paré and Schmitz, 2003)

Algeria being the tenth largest country in the world by land area and an approximate of 42 million as population is considered one of the richest in Africa due to the oil and gas reserves. Algeria's economy relies primarily on hydrocarbons exports and other sectors that are less developed and hence suffering from negligence and e-commerce is among the sectors⁶⁵.

Section 1 : The State of e-commerce and electronic payment in Algeria

The development of technology in Algeria has resulted to a very strong acceleration in the development of Internet.

Internet is a powerful medium, and it has enabled us to communicate through using our computers/laptops or smartphones with the rest of the world. Therefore, we are easy visible on everyone's screen by just clicking on social networks, blogs, video, etc.

This section will help in comparing e-commerce in Algeria and that of other countries, to understand the Algerian regulations in terms of e-commerce, help in reviewing some platforms of Algerian e-commerce, the difficulties and challenges linked to the development of e-commerce in Algeria and many others.

1.1. E-Commerce in Algeria⁶⁶.

The implementation and adoption of e-commerce have been widely discussed among the academic, the literature of early adopter countries have however been more abundant and diverse than the literature on developing countries and the focus is on Algeria particularly for this review.

Chaabna and Wang (2015) did their study in their most detailed way because Algeria was investigated and later analysed the state of e-commerce following Porter's diamond that was used to express and cover the main factors affecting e-commerce development in Algeria. These authors later claimed that the majority of countries in North Africa made a progress significantly in the e-commerce areas because ICT strategies is considered as a very important component whereas Algeria relegated it to as a secondary stage.

Chaabna and Wang and Luft (2014) in another paper outline the reasons behind the lack of e-commerce in Algeria and there are three main infrastructures (telecommunications, legal and supported services) and therefore concluded that there isn't any specific initiative, policy or strategic plans to encourage the development of e-commerce in the country.

Still Makhoulfi and Matouk (2013) in their paper of "electronic commerce in Algeria; towards new forms of online selling", describe the reality of e-commerce in Algeria based on interviews with

⁶⁵ S. Ouaras and A. Lalaoui : (2021). Introduction, Analysis of the governmental and legal factors influencing e-commerce implementation in Algeria. 14/N° : 01/ N.S/ 27. P.1/10

⁶⁶ S. Ouaras and A. Lalaoui : (2021). The State of e-commerce in Algeria, Analysis of the governmental and legal factors influencing e-commerce implementation in Algeria. 14/N° : 01/ N.S/ 27. P.2/10

specialists on the field, stating that e-commerce, as it is practiced in Algeria does not meet the basic criteria and it is not formal. These authors later drew the attention on the different forms of online selling and payment thereby concluding the development of e-commerce is a means to economic growth.

Medjedel (2013) carried out a local survey SME managers in the Ghardaïa province in Algeria and made a conclusion that e-commerce was positive because of the perceptions and attitudes of the natives and thereby creating awareness of the importance of e-commerce to their business, the author also believes that the strategy of e-commerce for SMEs as a result can be laying a foundation. Medjedel too mentioned that the two main barriers to the adoption of e-commerce by SMEs is the lack of resources and the inadequacy of the local and national environment.

1.1.1. Algerian regulations in terms of e-commerce⁶⁷.

The rapidity in advance of technology has posed a challenge for the legal and regulatory frameworks of all states especially the legal development and juridical institutions in developing countries.

In most countries, various legal frameworks including general consumer protection and contract laws, specific laws of e-commerce, misleading and unfair commercial practices, privacy, copyright, telecommunication laws and regulations cover e-commerce

Additionally, products shipped internationally introduced new regulatory issues.

In a broad literature review, Chitura et al (2008) had cited that the inadequacy of legal systems among the e-commerce adoption barriers and also based on the literature review conducted for the study, the following factors were extracted :

a). Government stability. Government policies had been described as a determined significant for the adoption of IT and particularly those related to improvement of telecommunications infrastructure, costs and services, national strategy of the e-commerce, a fair tax policy for online transactions, use of e-commerce to enhance government and provision of e-commerce training. (Zhu and Thatcher, 2010) Also the risk of political instability has been steadily growing since early 2019 in Algeria and its still facing an economic crisis currently.

b). Access to internet regulations. The main operator of internet and fixed and mobile phones in Algeria is Algérie tèlecom. This company has been slated for privatisation but the process has delayed repeatedly (Wikipédia, 2020)

c). Taxation policy. Taxation of e-commerce operations has been one of the challenges of the implementation and development of e-commerce

E-commerce calls for the growth internationally because of the need of an international coordination of tax policy.

d). Cross-border e-trade. The 18-05 law on e-commerce set conditions for conducting e-transactions cross-border, thereby stipulating that some services, materials and goods had to be prohibited from being purchased online in Algeria like gambling, lotteries, alcoholic drinks, products infringing on intellectual property rights thereby harming national security.

1.1.2. Companies in Algeria are concerned by the level of e-commerce which is almost of recent.

1.1.2.1. The rate of penetration in Algeria.

⁶⁷ S. Ouaras and A. Lalaoui : (2021). Governmental and legal factors influencing e-commerce development in Algeria, Analysis of the governmental and legal factors influencing e-commerce implementation in Algeria. 14/N° : 01/ N.S/ 27. P.3,4,5/10

The Rise in the rate of penetration on internet and its evolution on the number of users on internet has indeed attracted and educated advertisers about the new media thereby increasing the number of investments that have been advertised on the net from 0% in 2006 to 5% in 2013. All thanks to the work of the main actors of digital marketing who have traversed a huge path since 2006 to date. More efforts have been in order to standardize advertising space format, and promote content creation in Algeria and website in view of organisation of the digital market. In terms of the display, the lever mainly used in Algeria, the MED & COM director have stated that the market enters a regulatory phase as there are fewer free and exchange. The increase by 25% 1 and 10% per companion in 2013 of the average budget per advertiser was also noted⁶⁸.

- a) The online advertising in Algeria YouTube has now opened to advertising in Algeria, therefore the 1st estimates have emerged to show that YouTube might reach between 5.5 and 6 million people on a monthly basis. Little by little has been gained in the fields of the lives of Algerians through Advertising. Recently, the internet and the multiplication of sites in Algeria have given ideas to advertisers who do not hesitate to appear on the Web anymore. According to a study by Med & Com Régie Digital in 2014, the latter issued by the head has emphasised that investments advertised were multiplied by 4 based on the web. Today, they represent 2.5% compared to other media, more than 500 million DA⁶⁹.
- b) The reasons for the emergence of digital marketing in Algeria. Digital marketing has emerged because of the following :
 - the rapidity in the development of new technologies, whether computer equipment, and accessibility to the Internet.
 - the penetration rate of Internet in Algeria has risen.
 - free accessibility to information because of its multitude.
 - Algerian consumers have connectivity with thousands of other consumers around the world, thereby increasing the rate of demand.

1.1.2.2. Examples of e-commerce companies in Algeria⁷⁰

- a). **Jumia Companies** ; Jumia Algeria is a company for shopping online and usually visited by about 1.5 million people monthly, it was established in 2014 and today its turnover is great, all transactions are paid in cash and usually paid after delivery.
- b). **Yassir companies** ; Online commerce in Algeria is limited to commercial sites and yassir is a very good example, yassir applications are so easy to use because it literally shows you the destination and departure positions, the costs of services and the most and least used routes, it guarantees services of high quality, security and trust because after ordering one, you will receive a notification of the number plate, the colour and the names of the driver plus their contacts.
- c). **D-Shopping company** ; It is an Algerian platform for online sales and it was created in 2013, it mainly sells jewelry, shoes, clothesfashion accessories, electronic devices and many more. With this company, customers order for their products directly on the Dzshopping website and pay online through secure electronic payment solutions.
- d). **Batolis company** ; This company has recorded many encouraging sales figures because they are flexible in payment since they use CCP transfer and cash paid after delivery as their methods of payment.

⁶⁸ AMINE SAYAH, "Web entrepreneurship in Algeria: Hope 2.0" Article of 11/6/2013, in <http://www.nticweb.com/dossiers/7327-1-entrepreneure-web-en-alg%C3%A9rie-l-espoir-2.0.html> consulted on 24/07/2023

⁶⁹ AMINE SAYAH, ditto

⁷⁰ Dr. Imane Tabet Derraz and Pr Nadira BESSOUH, International Journal of Humanities Social Science and Management (IJHSSM), vol.3, Issue 2, Mar, -Apr. 2023, pp : 1386-1390, www.ijhssm.org

1.1.3. E-Commerce platforms in Algeria.

Facebook has remained the undisputed leader of social networks which has always fascinated the debates with not less than 7.8 million users in 2014. Twitter has also remained the privileged link, in order to discover whatever is happening in our centres within a minute. Interestingly, the penetration rate of 0.1% around the world thereby making it remain with a very low rate. And YouTube has remained the favorite place where Algerians view videos of all types, pure distraction and self-education by reaching 5.5 to 6 million people every month⁷¹

1.1.4. The levers are used by Algerian companies and the mostly used tools by Algerian companies are as follows ;

A). The Webmarketing.

Algerian companies which have almost all websites, and contain information about their activities and products. They use the Display : the Videos on YouTube, banners, and adverts because they have realised the interest of consumers. Invoicing some sites of the top 100 mostly visited sites in Algeria in May 4, 2015 of Alexa⁷².

1- Facebook.com, / 2-google.dz, / 3-youtube.bom, / 4-google.com, / 5- Yahoo.com, / 6-google.com, / 7-ASK.COM, / 8-OUEDKNISS, / 9-ELHEFFAF.COM, / 20-DJELFA-INFO, / 21- ENNAHARONLINE.COM, / 28-ELKHABAR.COM, / 62-POST.DZ, / 80-LEBIVER.COM, / 87- ALGERIA-INFO.COM.

B). Social Media.

- Companies have created their pages on the different social networks Facebook, Twitter, Google +, Instagram in order to give more information concerning the products and thus creating trust relationships with their customers thereby allowing consumer discussions and brand that will facilitate the offer that require being personalised,

- blogs

- Video, are disciplines that are not very exploited locally in Algeria apart from a few multinationals⁷³.

1.2. E-Commerce in other countries.

China has been outselling the world, the United States being second to the largest e-commerce market with about \$843 billion in sales at an expected \$2.78 billion in sales in e-commerce by the end of 2021. There's still an annual spending in the next three largest national ecommerce markets of over \$433 billion. Meanwhile, the United Kingdom, Japan and South and another country happen to sell \$834 billions throughout the rest of the world.

Below is an example of an extracted table showing retail ecommerce sales CAGR (Compound Annual Growth Rate) forecast in selected European countries⁷⁴.

⁷¹ www.ericson.com/ consulted on 24/07/2023

⁷² <http://www.invest-in-algeria.com/top-100-des-sites-les-plus-visites-en-algie/> consulted on 25/07/2023

⁷³ ⁷³ www.ericson.com/ consulted on 24/07/2023

⁷³ <http://www.invest-in-algeria.com/top-100-des-sites-les-plus-visites-en-algie/>, page 71

⁷⁴ Global-ecommerce-guide.pdf, p.11/65

Table 2 : Retail e-commerce sales CAGR (Compound Annual Growth rate) forecast in selected countries from 2021 to 2025⁷⁵

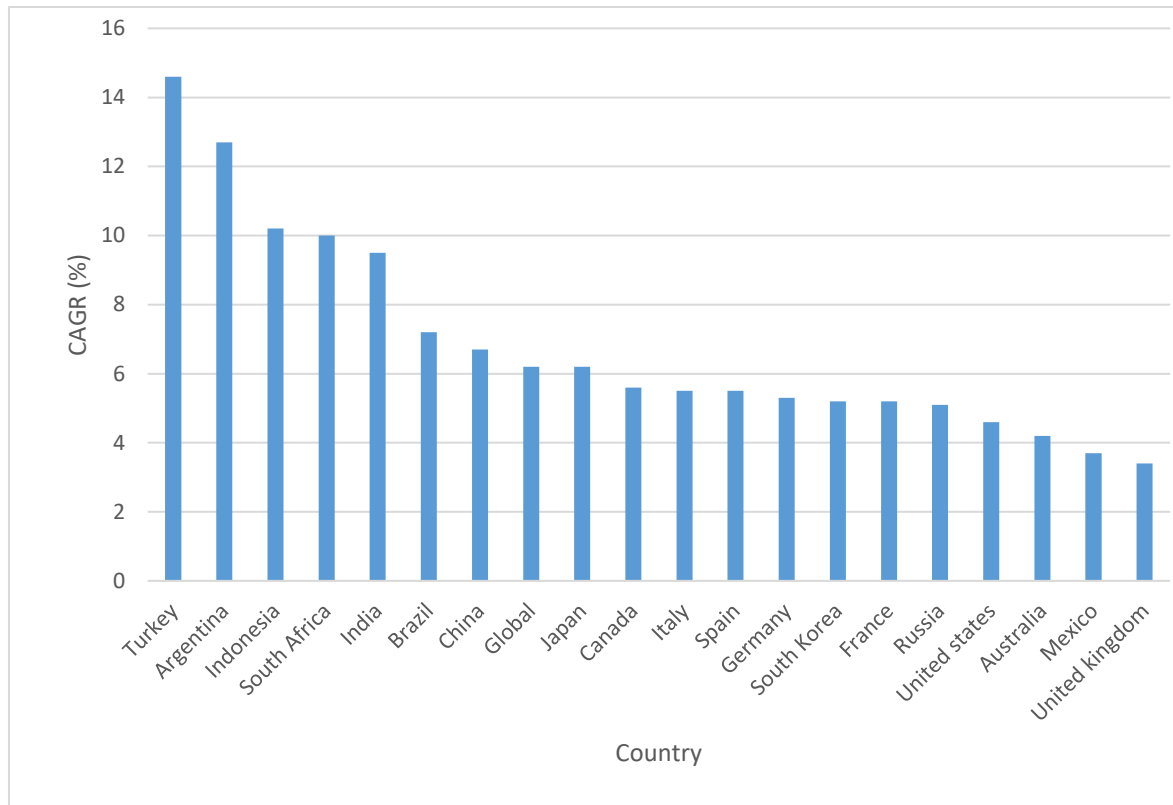
Country	CAGR (%)
Turkey	14.6
Argentina	12.7
Indonesia	10.2
South Africa	10
India	9.5
Brazil	7.2
China	6.7
Global	6.2
Japan	6.2
Canada	5.6
Italy	5.5
Spain	5.5
Germany	5.3
South Korea	5.2
France	5.2
Russia	5.1
United States	4.6
Australia	4.2
Mexico	3.7
United Kingdom	3.4
Total	100%

Additional information : Worldwide ; Statista Digital Market Outlook forecast adjusted for expected impact of COVID-19

Sources ; Statista, Statista Digital Market Outlook @Statista 2021

⁷⁵ The Global Ecommerce Playbook, p.11/65

Figure N°1. Graphic representation of the retail e-commerce sales in CAGR forecast in related countries from 2021 to 2025



Source : Statistica ; Statistica digital market Outlook@ Statistica 2021 p.11/65

Interpretation of the Results from the table 2

From the table, Turkey has the highest compound annual growth rate of 14,6% because of the following reasons⁷⁶ ;

a).Turkey’s overview ; The market size of e-commerce increased from 2016-2022 thus an increase in the total retail sales leading to increased market revenue in e-commerce hence creation of more e-commerce segments through market shares.

b). Payment methods ; Consumers in Turkey prefer to use credit cards because they are distributed by the domestic banks like tapi, kredi. QNB, Fransbank and Albanians have upto nearly 6 out of 10 online transactions which makes Turkey to be regarded as one of the fastest growing online markets in Europe

c). Online orders and consumers ; The growth rate of the volume of e-commerce in Turkey increased in 2022 by the distribution category of the transaction volume of e-commerce every day.

d). Sellers and companies ;The leading brands of the market share of e-commerce are from Turkey and most of the clothing brands websites and mobile apps that are preferred are in Turkey .

The Turkish e-commerce market was led by Trendyol.com with a generated e-commerce net sales of US \$37267,9 million in 2022 , Hepsiburada.com following with US \$ 767,7 million and lc Waikiki.com taking the third place with revenues of about US \$ 613 million and the fourth biggest online store is [migros.com.tr](https://www.migros.com.tr) with the net sales US \$ 611 million

⁷⁶ <https://www.statista.com/forecasts>

Whereas United Kingdom has the lowest compound annual growth rate of 3,4% because of the following reasons like inflation rates, CPI annual inflation rates , the RPI annual inflation rate and average annual earnings for full time employees.

The economic fallout caused by the corona virus (COVID-19) pandemic because the UK economy grew by 4,1% in 2022, then there was a growth rate of 7,6% and later recorded 11% as a decline .

The biggest annual fall in the gross domestic product occurred in 2009 prior to 2020 , there by leading to the UK economy contracting 4,5% at the height of the global financial crisis of the late 2000s⁷⁷

E-Commerce in other countries such as ;

a).Uganda ; Due to widespread usage of mobile money (telephone based financial transfer) and the rapidity in growth of mobile phone usage, Uganda has still regulated e-commerce loosely and informly. Given the population of Uganda of about 32 million, only 19 million use bank accounts while the rest prefer to use money accounts. One of the advantages of e-commerce in Uganda is the expanding of the middle class with a growing taste for U.S consumer items because they regard it as superior as compared to those of China. Payments in Uganda are made in cash and mobile money transfers typically⁷⁸.

b).South Africa ; Online sales have increased to more than 1.8 billion (ZAR30 billion) from 2019 to 2020. Clothing and online entertainment alongside data and airtime are the top e-commerce products. UberEATS is available in South Africa and has a competition with a local platform called Mr.Delivery⁷⁹

Conclusion⁸⁰.

E-commerce has still become more relevant to Algerian authorities despite the already existing limitations and obstacles and this has enabled the government to adapt new digital age in order to adapt e-commerce, cyber criminality and data protection laws.

The implementation of e-commerce has however been successful thereby allowing the internet speed and penetration rate therefore facilitating accessibility to internet

The weakest link such as e-payment have remained indeed to date due to online sales sites that use cash payment at the delivery and creating a lack of awareness of the usage of credit cards and trust in electronic means despite the efforts made by the government

The Algerian authorities must provide support to the e-marchants and e-consumers at all levels, and this will only be of benefit to companies and customers on the one hand and for the state economy on the other hand

Section 2 ; The Consumer survey and the methodology of research.

However, this section would be incomplete without conducting a survey in order to understand consumer behaviour very well, it is therefore very important to carry out a survey either through interviewing different individuals to know their thoughts or sending questions to different individuals and waiting for their responses concerning the asked questions.

A questionnaire will therefore be used for this kind of survey.

Having sent out questions to a few of the retail Algerian natives who have businesses such as cosmetics shops, boutiques, shops selling shoes and bags, definitely buy most of these products they

⁷⁷ www.statista.com. Annual growth of gross domestic product in the UK from 1949 to 2022

⁷⁸ <https://www.trade.gov/country-commercial-guides/uganda-ecommerce>

⁷⁹ <https://www.trade.gov/south-africa>

⁸⁰ S. Ouaras and A. Lalaoui : (2021). Conclusion, Analysis of the governmental and legal factors influencing e-commerce implementation in Algeria. 14/N° : 01/ N.S/ 27. P.8/10

sell online. Therefore I carried out a survey in order to find out information and also interviewed a few foreign students who have managed to buy some products online and how they behaved towards those products. Thus, we will find out the main stages involved in this survey/investigation.

I have designed the research through a survey and tools of research that have been used in order to meet the problem here. So to carry out this survey, I followed a methodology that will be presented below ;

2.1. The Research Methodology.

2.1.1. Presentation of the survey ; "The method of survey used is the present time and this applies to a large population," and it brings answers to the questions such as which, what, or, how much ? These responses obtained are of using a representative questionnaire to a representative sample, these information are of a standard level and have allowed easy comparisons. As part of my research, I managed to follow a methodology based on quantitative research and based on a sample of my survey, the tools for data collection, making analysis and interpreting the of quantitative data.

2.1.2. Sampling ; So in order to understand the technique of sampling, some notions will be presented in this point that will constitute this element. The notion of sampling is "associated with a subset of individuals drawn from a larger set called population".

2.1.2.1. The choice of the sample : My sample includes a group of people with the same or almost the same characteristics as the basic population surveyed. The sample composes three types of approaches such as Qualitative approach, Quantitative approach and Mixed approach.

2.1.3. Approaches of Research

A). The qualitative approach is a survey aimed at obtaining detailed information about the needs and behavior of consumers in a target market. It differs from the quantitative study whose aim is to obtain statistical data⁸¹.

The purpose of qualitative research is to describe impressions, clarify facts and agree with the meaning of the elements observed. It seeks less to validate initial hypotheses than to understand the way in which, for example, a value creation was perceived, impressions were received or situations were experienced⁸².

B). The Quantitative approach.

The quantitative approach is a data collection technique that allows the researcher to analyze behaviors, opinions, or even expectations in quantity⁸³.

Quantitative research methods remain in the majority, because they are more (but not more simplistic) than qualitative forms which include a greater element of subjectiveness in the questioner and the questioned. It is in fact always difficult to neutralize this part of what is left unsaid in the processed data. My choice of sample here is the Quantitative approach because it is dealing with population thereby counting the number of people as well as collecting their necessary information.

In this case, The Quantitative approach was the best choice that i chose to use.

⁸¹ <https://www.blog.hubspot.fr//marketing>

⁸² MEMENTOS LMD-REUSSIR MEMOIRE, THESE ET HDR, page 89/90

⁸³ <https://www.scribbr.fr//methodologie/etude-qualitative>

This approach can for example be carried out using a survey or questionnaire and the results of the quantitative study are expressed in numerical data and make it possible to calculate averages, count the frequencies of a certain response, divide the data into percentages, degrees and so forth

C). The Mixed approach⁸⁴.

It is a combination of different types of research within the same project. There is a desire to combine from different « paradigms » of different research traditions with mutually incompatible philosophies. In most cases, this means mixing qualitative and quantitative components with researchers writing variously about the use of qualitative and quantitative data, or qualitative and quantitative research

Comment on my choice of Approach.

My choice of approach here is the Quantitative approach because it is dealing with population thereby counting the number of people as well as collecting their necessary information.

In this case, The Quantitative approach was the best choice that i chose to use.

2.1.4. Data collection ; The questionnaire is a research tool used in approaching where practical research will have to take place, the main importance of the questionnaire is to have the necessary information from customers who will accept and allow to fully answer the question.

A Questionnaire is a list of questions that are used to in gathering data or information from respondents about their opinions and exoeriences especially. A questionnaire can also be defined as a written interview, it can be carried out face to face, by sending emails or posts, and can also be conducted on telephone⁸⁵

A questionnaire contains questions which are sequential, they are always uniform,, they can be understood easily and they enable one to explore (hence these characteristics)⁸⁶

The purpose of this questionnaire was to ease the conducting of the survey, able get responses to the questions and get to know the different opinions from different respondents concerning the different questions.

2.1.4.1. The development, design and the administration and the questionnaire structure

The following figure presents the models of questions that are grouped together in two types closed and open. For the purposes of the survey on the behavior of retail Algerian consumers, a well developed and designed questionnaire was distributed to a sample of a population of 20 people. My questionnaire comprises 5 very simple questions and very easy to understand inclusive of a developed data sheet; laying between closed questions in which there are integrated questions: dichotomous, evaluation scales as well as scales of intention in order to end with an open question so as to give freedom of speech to the respondent thus expressing themselves on the subject being asked.

2.1.4.2.The mode and period of administering the questionnaire.

The mode of administration of the questionnaire chosen was according to different costs involved, speed of obtaining the answers and their reliability, length of the questionnaire as well as the nature of the questions. Face to face approach was my choice where I asked most of the individuals the questions however I also asked a few foreign students especially those that buy their products online

⁸⁴ The Good Research Guide, p.146-147, Livre Martyn-Denscombe, 5éme edition

⁸⁵ <https://www.marketing91.com>questionnaire>

⁸⁶ <https://www.marketing91.com>questionnaire>

from stores such as Ali express, Ali baba, SHEIN plus those who have also bought some products online within Algeria from big brands such as Zara, Bershka and so on and so forth, and I also took the opportunity to call some people and heard conversations through the phone in order to get their experience and information about them buying their products online. I conducted my survey for one week (such a short time because of need to complete my research work on time) and this was in the month of July. (20th to 27th)

2.1.5. The sample size : My sample comprises 20 people with the identified characteristics presented in the first questions of my survey. A questionnaire was used to collect the necessary information based on the questions posed.

2.2. Analysing and interpreting the results of my survey.

In order for me to process my survey, i resorted to the using flat sorting of the data collected as a method which gives responses for just one question.

2.2.1 Result and analysis of the survey ;

A compilation of the results will be presented for the survey that was carried out.

2.2.1.1. The results of the survey.

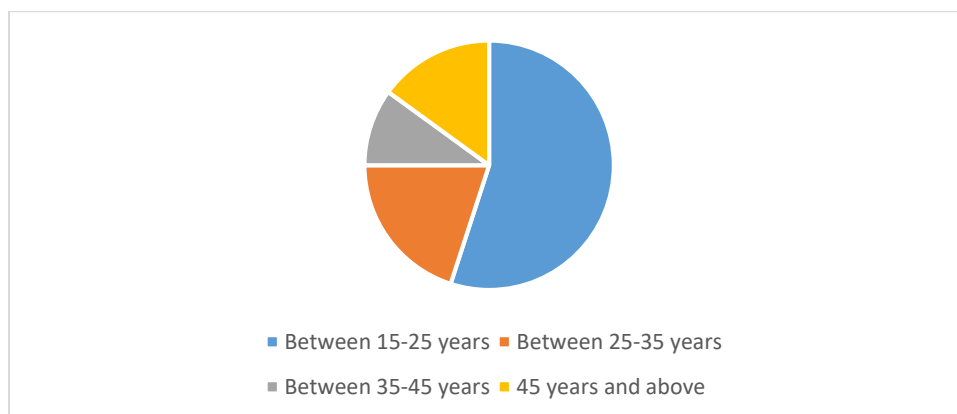
Question1 : What is your age group ?

Table 3 : Age group of the respondents.

Age group	Number of the respondents	Degrees (°)
Between 15-25 years	11	198
Between 25-35 years	4	72
Between 35-45 years	2	36
45 years and above	3	54
Total	20	360

Source ; Compiled based on the results of the survey.

Figure No. 2 : The Age group of the respondents.



Source ; Elaborated from table No.3

So through my survey, I tried to reach out to most age groups in order to assess the results and better define the nature of the questionned people

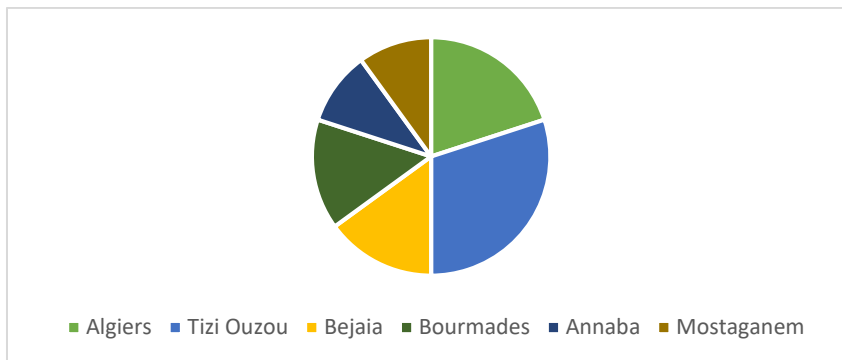
Question 2 : What is your wilaya of residence ?

Table 4 : Number of respondents according to their wilaya of residence.

Wilaya of residence	Number of the respondents	Degrees (°)
Algiers	4	72
Tizi Ouzou	6	108
Bejaia	3	54
Bourmades	3	54
Annaba	2	36
Mostaganem	2	36
Total	20	360

Source ; Compiled based on the results of the survey.

Figure No.3 : The distribution of the respondents according to their wilaya of residence in degrees.



Source ; Elaborated from table 4.

Most of the respondents are from the wilaya of Tizi Ouzou simply because while distributing the questionnaire, I considered proximity thereby interacting with the respondents face to face.

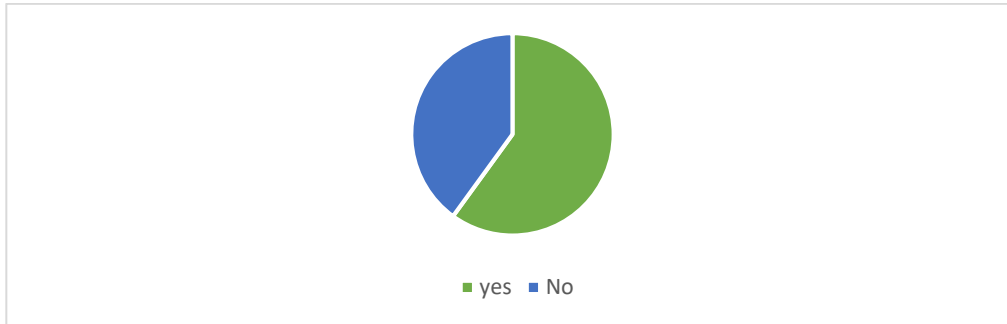
Question 3 : Have you bought any products online/ from online stores ?

Table 5 : Respondents who have bought products online.

Online stores	Number of respondents	Degrees(°)
Yes	12	216
No	8	144
Total	20	360

Source ; Compiled based on the results of the survey.

Figure No.4 : Respondents who have bought products online



Source ; Elaborated from table 5

Literally most of the respondents have managed to buy products online though most of them said they do not think they would ever do it again because of reasons such as the quality not being the same as those online, sizes are either bigger or smaller and those that have never bought products online are scared to do it because they do not have trust.

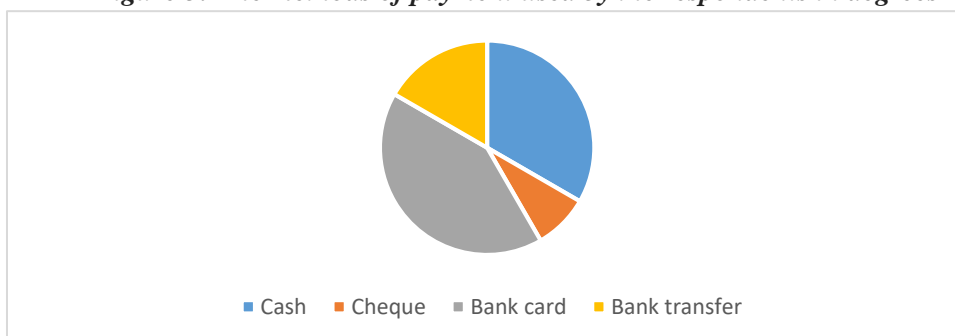
Question 4 : When you ordered for products online, how did you pay for them ?

Table 6 : Methods of payment that the respondents used for their products.

Methods of payment	Number of respondents	Degrees(°)
Cash	4	120
Cheque	1	30
Bank card	5	150
Bank transfer	2	60
Total	12	360

Source ; Compiled based on the results of the survey conducted.

Figure 5: The methods of payment used by the respondents in degrees



Source ; Elaborated from table 6.

A large number of respondents would rather prefer to pay for their products using bank card because its more safe , secure and time saving.

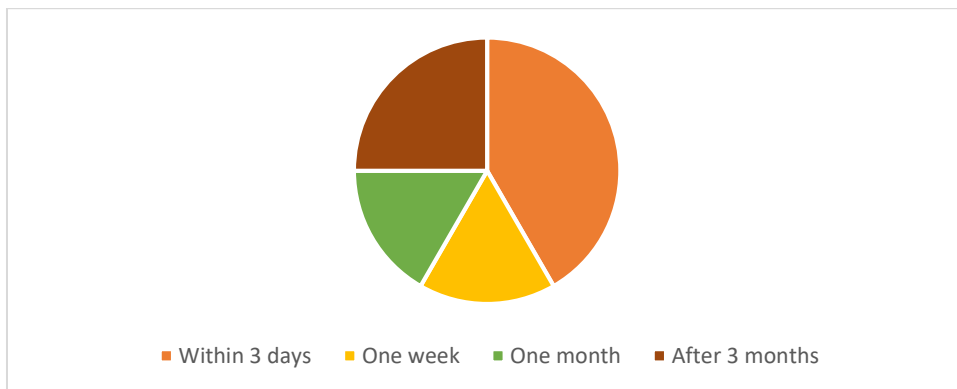
Question 5: How long did it take for you to receive your products?

Table 7: Duration of time it took for the respondents to receive their products.

Duration of time	Number of respondents	Degrees (°)
Within 3 days	5	150
One week	2	60
One month	2	60
After 3 months	3	90
Total	12	360

Source; Compiled based on the results of the survey conducted.

Figure 6: The duration of time it took for the respondents to receive their purchases/products.



Source; Elaborated from table 7.

This result shows that most of the respondents received their products within 3 days and also many received after three months probably because they bought their products from brands outside Algeria, and this comes with shipping costs and hence complicated to ship to Algeria and some have received their products after one week because they bought from online stores within Algeria.

2.2.2. Interpretation of the results.

Having analyzed the results of the survey on the behavior of consumers in Algeria, the focus will be on the results of the questionnaire specified for the residents interviewed in order to come up with the answers to the questions of the survey.

After the analysis, this is the summary of the survey I carried out;

- After the survey, it's obvious that most of the respondents would prefer to buy their products from online stores.
- Also most of the respondents would rather pay for the products they purchased online using bank card and cash because of the lack of security and also most of them do not trust online vendors or companies.
- In addition, the percentage of young people have engaged in online purchasing and this from the age group of 15-25 and 25-35.

And with the development of information and communication technologies, the consumers in Algeria are more receptive to digital marketing than traditional marketing and hence these conclusions;

- The consumer prefers simplicity.
- The consumer would rather pay for the products bought online using cash and thus allowing him/her to have reassurance because other electronic methods of payments are not yet developed here in Algeria and also the lack of confidence and trust.
- The consumer would rather buy products online in order to avoid travelling or wastage of time.

-Also the fact that the consumer has become more suspicious and more demanding with the new technologies, thus has given them room to research about the products before placing orders.

Conclusion.

After I carried out my survey, the information I collected was with the aim of knowing about the importance and the role of digital strategies in acquiring new customers.

The development of the internet which is observed by both the researchers and practitioners is one of the impacts and also today there isn't no alternative to multichannel based on the e-commerce. However, all companies in Algeria will sooner or later prepare for them in order to integrate them into their strategies.

For the part of the survey, it was a good experience meeting different participants and getting to know their opinions but a lot of challenges were faced too during the survey
60% of the respondents have been able to buy products online and 40% have never simply because they don't have confidence in online stores or vendors, lack of trust and also lack of security.

GENERAL CONCLUSION

GENERAL CONCLUSION

New information and communication technologies and the Internet in particular today are a major tool in building competitiveness. The companies that have managed to win are those that know how to establish cooperation, work in a network, collectively produce and use the constantly renewed knowledge that they need in order to generate value.

All thanks to the rapidity in the development of new technologies, companies have integrated the digital dimension in order to understand the needs of consumers effectively, in particular through e-commerce, which has generally referred to all commercial transactions that have used electronic means so as to respond to the requests and expectations of consumers and stay in contact with other businesses and consumers around the world. The web has offered possibilities to companies that will be able to handle them with common sense and at the right time.

The survey i conducted allowed me to understand that consumers have gradually evolved are have increasingly been interested in the search for online services. And as part of my work, i carried out a survey in order to have accessibility to the importance of the digital strategy to acquire new clients.

The survey took a quantitative approach through the use of a Questionnaire with which has helped customers to provide necessary information in order to answer the necessary questions that i sent them

During my survey, I faced some challenges, first of all, the methodology of research that i used was for convenience, however i sent the questionnaire to quite a number of people bringing us to the problem that most of the people i sent or distributed questionnaires too did not respond or answer the questions, some of the respondents took so much time to respond, most of the respondents were not able to understand the questionnaire because of language barrier but i had to explain to them the questions in french so that they would understand and give the feedback, the nit was so hard approaching some people hence the less number (20)

Through the results i obtained, i have also noticed that many of the consumers believe that the existence and development of a site is its ability to make choices anywhere and at any time thereby becoming essential and beginning to integrate this new approach of purchasing in their process of responding to their needs. It should be remembered that the customer is the king thereby becoming the center of concern and the source that must be preserved and retained within any organization.

However, there are still no means of online payment in Algeria which has hindered the development of e-commerce.

The results of my work are however not consistent with the trends that were able to be identified during my theoretical research. E-commerce having developed in Algeria has however not experienced the growth that have been achieved in developed countries.

Companies in Algeria are aware of the change that has taken place within the society following the changes in the habits of Algerian consumers despite these shortcomings all thanks to the Internet, having the possibility of accessing free information on products, sales stores, but also making comparisons on prices with those of competitors.

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<https://www.trade.gov>south-africa>

ANNEXE

Questionnaire for the Survey.

This questionnaire is used in order for me to collect information thereby enabling me to know the consumption habits of consumers here in Algeria.

It won't take you more than 5 minutes, please take your time and thank you for your immense contribution towards the research project.

Question 1 : What is your age group ?

- Between 15-25 years
- Between 25-35 years
- Between 35-45 years
- 45 years and above

Question 2 : What is your wilaya of residence ?

- Algiers
- Tizi Ouzou
- Bejaia
- Bourmades
- Annaba
- Mostaganem

Question 3 : Have you bought any products online/ from online stores ?

- Yes
- No

Question 4 : When you ordered for products online, how did you pay for them ?

- Cash
- Cheque
- Bank card
- Bank transfer

Question 5 : How long did it take for you to receive your products ?

- Within 3 days
- One week
- One month
- After 3 months

Incase of any suggestions or ideas, please do not hesitate to contact me.

A very big thank you for your contribution

ABSTRACT

Electronic commerce is a very interesting subject and these are the current pillars in the development of business.

- To determine the importance of digital strategy
- To measure the level of appreciation of online purchase by the consumers in Algeria.

I am supposed to make a research about how online payments are secured in different parts of the world, so i embarked on the following methods of research

Firstly, i made a theoretical research using different avenues to define and analyse the concept of e-commerce, its development procedures and ofcourse the different means of payment implemented by companies to secure the confidence of their customers.

Secondly, i made a quantitativ reaserch using questionnaires to determine the factors that affect online purchases in Algeria with a sample of 20. This study was topped up by the extracted study from « the global e-commerce playbook) which shows the CAGR of retail e-commerce sales in 20 selected european countries. This enbled me to do a comparative study among them.

The results of my work are however not consistent with the trends that were able to be identified during my theoretical research. E-commerce having developed in Algeria has however not experienced the growth that have been achieved in developed countries.

Companies in Algeria are aware of the change that has taken place within the society following the changes in the habits of Algerian consumers despite these shortcomings all thanks to the Internet, having the possibility of accessing free information on products, sales stores, but also making comparisons on prices with those of competitors.

Keywords ; E-commerce, ICT(TIC), securing e-commerce, payment, Algeria

Résumé

Le commerce électronique est un sujet très intéressant et ce sont les piliers actuels du développement des affaires.

- Déterminer l'importance de la stratégie numérique
- Mesurer le niveau d'appréciation de l'achat en ligne par les consommateurs en Algérie.

Je suis censé faire une recherche sur la façon dont les paiements en ligne sont sécurisés dans différentes parties du monde, je me suis donc lancé dans les méthodes de recherche suivantes

J'ai tout d'abord effectué une recherche théorique empruntant différentes pistes pour définir et analyser le concept d'e-commerce, ses procédures de développement et bien sûr les différents moyens de paiement mis en œuvre par les entreprises pour gagner la confiance de leurs clients.

Deuxièmement, j'ai effectué une recherche quantitative à l'aide de questionnaires pour déterminer les facteurs qui affectent les achats en ligne en Algérie avec un échantillon de 20 personnes. Cette étude a été complétée par l'étude extraite du « le playbook mondial du commerce électronique) qui montre le TCAC du commerce de détail. Ventes e-commerce dans 20 pays européens sélectionnés. Cela m'a permis de faire une étude comparative parmi eux.

Les résultats de mes travaux ne sont cependant pas cohérents avec les tendances qui ont pu être identifiées lors de mes recherches théoriques. Le commerce électronique s'étant développé en Algérie, n'a cependant pas connu la croissance que connaissent les pays développés.

Les entreprises en Algérie sont conscientes du changement qui s'est produit au sein de la société suite aux changements dans les habitudes des consommateurs algériens malgré ces lacunes tout cela grâce à Internet, ayant la possibilité d'accéder gratuitement à des informations sur les produits, les magasins de vente, mais aussi de faire des comparaisons sur les prix avec ceux des concurrents.

Mots clés ; Commerce électronique, TIC, la sécurisation du e-commerce, paiement, Algérie,