

**DEMOCRATIC AND POPULAR REPUBLIC OF
ALGERIA**
**MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC
RESEARCH**

ECOLE SUPERIEURE DE COMMERCE

A Thesis Submitted in Partial Fulfillment of the Requirements for
Master's Degree in Commercial Sciences

Specialty: Marketing & Communication

**THE CONTRIBUTION OF PSYCHOLOGICAL
AND ENVIRONMENTAL FACTORS TO
ONLINE CONSUMER BEHAVIOR**

Case Study: JUMIA ALGERIE

Submitted by

Lylia MIMI

Supervised by

Dr. Yahia BOUKERCH

Training address: Jumia Algeria, Dely Ibrahim-Algiers. Algeria

Training period: from April 11 to May 10 2021.

2020/2021

**DEMOCRATIC AND POPULAR REPUBLIC OF ALGERIA
MINISTRY OF HIGHER EDUCATION AND SCIENTIFIC
RESEARCH**

ECOLE SUPERIEURE DE COMMERCE

A Thesis Submitted in Partial Fulfillment of the Requirements for
Master's Degree in Commercial Sciences

Specialty: Marketing & Communication

**THE CONTRIBUTION OF PSYCHOLOGICAL
AND ENVIRONMENTAL FACTORS TO
ONLINE CONSUMER BEHAVIOR**

Case Study: JUMIA ALGERIE

Submitted by

Lylia MIMI

Supervised by

Dr. Yahia BOUKERCH

Training address: Jumia Algeria, Dely Ibrahim-Algiers. Algeria

Training period: from April 11 to May 10 2021.

2020/2021

Dedication

To the man no like other, my Father. There are not enough words I can say to describe just how important is my dad to me.

To my Mother who taught me that all things in life are difficult before they become easy, and that patience can be the best cure for any human pain.

To the source of wisdom and serenity in my family, my Grandmother.

Lylia

Acknowledgments

First and foremost, praises and thanks to Allah, the Almighty, for His showers of blessings throughout my research work to complete it successfully.

Next, I would like to express my deep and sincere gratitude to my esteemed supervisor, Dr. Yahia Boukerch for having faith in my abilities, for his patience, sincerity, motivation, and immense knowledge. It was a great privilege and honor for me to work and study under the guidance of such a unique professor. I could not have imagined having a better supervisor and monitor for my master's dissertation.

I also would like to thank my supervisor at Jumia Algeria Mr. Nacer Mahiouz for his support and his kindness.

I am extremely grateful to my parents for their love, prayers, caring and sacrifices for educating and preparing me for my future, and for all their support to accomplish this research work.

Also, I express my thanks to my sisters: Dalel, Sihem and Meriem for being by my side before, during and after this work preparation.

My Special thanks go to my beloved friends with whom, I shared my best and worst memories: Ibtihel, Amira, Nour El Houda, Imen, Imene, Janet, Tina, Maissa, and Nassiba.

I also would love to address a big thanks to my cousin Mimi Abderrahim for offering help and allocating me time and effort.

Finally, my thanks go to "Groupe Marketing" and all people who have supported me to complete this research work directly or indirectly.

Table of Contents

List of Tables.....	I
List of Figures.....	II
Chapter I: Introduction	
1.1 Main Research Question.....	4
1.2 Sub-questions.....	4
1.3 Hypotheses.....	4
1.4 Reasons of choosing the research.....	5
1.5 Importance of the research.....	5
1.6 Objectives.....	5
1.7 Research design.....	5
1.8 Research structure.....	6
Chapter II: Literature Review	
Introduction.....	9
2.1 Consumer Behavior.....	10
2.1.1 Affect.....	11
2.1.2 Cognition.....	11
2.1.3 Behavior.....	12
2.1.4 Environment.....	12
2.2 Online Consumer Behavior.....	12
2.3 Factors Influencing Online Consumer Behavior.....	13
2.3.1 Internal Factors.....	14
2.3.1.1 Attitude.....	14
2.3.1.2 Perception.....	14
2.3.1.3 Perceived risk.....	15
2.3.1.4 Trust.....	15
2.3.1.5 Intention.....	17
2.3.1.6 Involvement.....	18
2.3.1.7 Personality.....	18
2.3.1.8 Need for cognition.....	18
2.3.2 External Factors.....	18
2.3.2.1 Socio demographics.....	19
2.3.2.2 Reference groups.....	19
2.3.2.3 Service/product quality.....	20

2.3.2.4 Website aesthetics.....	20
2.3.2.5 Website quality.....	21
2.3.2.6 Website social presence.....	21
2.4 Electronic Word of Mouth (E-WOM)	21
2.4.1 Factors Influencing e-WOM.....	22
2.4.1.1 Concern for other consumers.....	23
2.4.1.2 Helping the company.....	23
2.4.1.3 Social benefits.....	24
2.4.1.4 Customer satisfaction.....	24
2.4.1.5 Customer loyalty.....	24
2.4.1.6 Website quality.....	24
2.4.1.7 Perceived usability.....	25
2.4.1.8 Improving self-image.....	25
Conclusion.....	26
Chapter III: Research Methods	
Introduction.....	28
3.1 Research Stimulus.....	29
3.1.1 General Overview of Jumia Group.....	29
3.1.2 Jumia Algeria.....	30
3.2 Research Design.....	31
3.2.1 Exploratory Research.....	31
3.2.1.1 Secondary data.....	31
3.2.1.2 Qualitative research.....	31
3.2.2 Conclusive Research.....	32
3.2.2.1 Descriptive research.....	32
3.2.2.2 Causal research.....	32
3.3 Questionnaire Design.....	34
3.3.1 Adoption of questions.....	34
3.3.2 Measurement scaling.....	35
3.3.3 Types of questions.....	35
3.4 Sampling Design.....	36
3.5 Preliminary Plan for Data Analysis.....	37
3.5.1 Linear regression analysis.....	37
Conclusion.....	39
Chapter IV: Research Findings	

Introduction.....	41
4.1 Descriptive Analysis.....	42
4.1.1 The commonly used websites for online purchases by respondents.....	42
4.1.2 Respondent’s age.....	43
4.1.3 Personal income.....	43
4.1.4 Gender.....	44
4.2 Hypotheses Tests.....	45
4.2.1 Test of the first hypothesis.....	45
4.2.1.1 Screening Data for Regression.....	45
4.2.1.1.1 Sample size.....	45
4.2.1.1.2 Multicollinearity.....	45
4.2.1.1.3 Normality.....	46
4.2.1.1.4 Independence of residuals.....	47
4.2.1.1.5 Outliers.....	48
4.2.1.2 Model Evaluation.....	48
4.2.1.2.1 Model usefulness.....	49
4.2.1.2.2 Parametric evaluation.....	49
4.2.2 Test of the second hypothesis.....	50
4.2.2.1 Screening Data for Regression.....	51
4.2.2.1.1 Sample size.....	51
4.2.2.1.2 Multicollinearity.....	51
4.2.2.1.3 Autocorrelation.....	52
4.2.2.1.4 Normality.....	52
4.2.2.1.5 Outliers.....	54
4.2.2.2 Model Evaluation.....	54
4.2.2.2.1 Model usefulness.....	55
4.2.2.2.2 Parametric evaluation.....	55
4.2.3 Test of the third hypothesis.....	56
4.2.3.1 Screening Data for Regression.....	56
4.2.3.1.1 Sample size.....	56
4.2.3.1.2 Multicollinearity.....	57
4.2.3.1.3 Normality.....	57
4.2.3.1.4 Outliers.....	59
4.2.3.1.5 Autocorrelation.....	59
4.2.3.2 Model Evaluation.....	60

4.2.3.2.1 Model usefulness.....	60
4.2.3.2.2 Parametric evaluation.....	61
4.3 Summary of Findings.....	62
Conclusion.....	64
Chapter V: Conclusion	
5.1 Overview of the Study.....	66
5.2 Major Findings.....	67
5.3 Recommendations.....	68
5.4 Study Limitations.....	69
5.5 Futures Research Directions.....	69
Chapter VI: References.....	71
Appendices.....	80
Abstract.....	103

List of Tables

Table 3.1: Adoption of questions	34
Table 4.1: Correlation matrix.....	46
Table 4.2: Model summary	48
Table 4.3: ANOVA.....	49
Table 4.4: Parametric evaluation.....	49
Table 4.5: Correlation matrix.....	51
Table 4.6: Model summary	52
Table 4.7: ANOVA.....	55
Table 4.8: Parametric evaluation	55
Table 4.9: Correlation matrix.....	57
Table 4.10: Model summary.....	60
Table 4.11: ANOVA.....	60
Table 4.12: Parametric evaluation	61

List of Figures

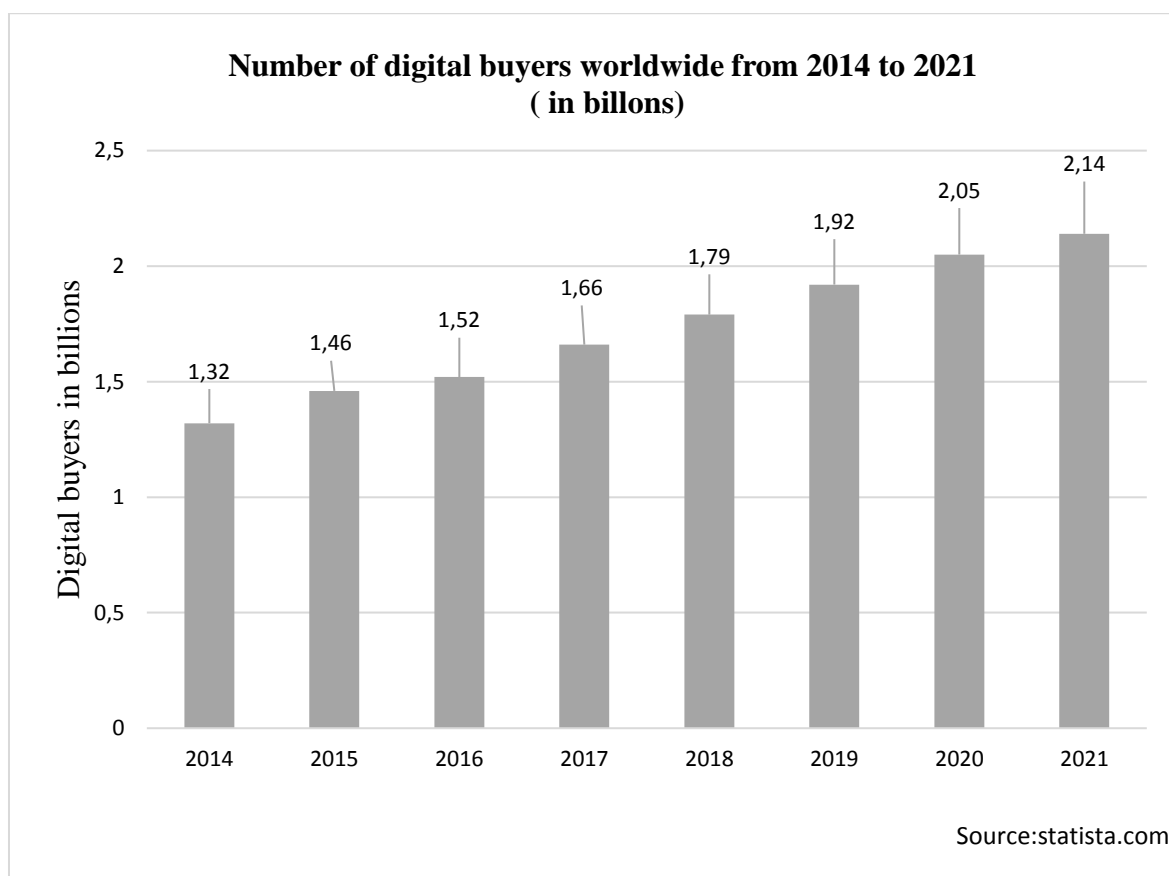
Figure 1.1: Number of digital buyers worldwide from 2014 to 2021.....	1
Figure 2.1: Elements of consumer behavior.....	11
Figure 2.2: Factors determining online trust	16
Figure 2.3: Factors influencing e-WOM.....	23
Figure 3.1: Jumia Algeria Organizational Structure.....	30
Figure 3.2: A classification of conclusive research design.....	33
Figure 4.1: Commonly used websites by respondents.....	42
Figure 4.2: Respondent's Age.....	43
Figure 4.3: Personal Income ranges of respondents.....	44
Figure 4.4: Respondent's Gender.....	44
Figure 4.5: Normal P.P Plot.....	46
Figure 4.6: Regression Standardized Residual's Histogram.....	47
Figure 4.7: Normal P.P Plot.....	53
Figure 4.8: Regression Standardized Residual's Histogram.....	54
Figure 4.9: Normal P.P Plot.....	58
Figure 4.10: Regression Standardized Residual's Histogram.....	59

Chapter I

Introduction

In 2021, the number of online buyers is estimated to reach 2.14 billion consumers, an increase by 62.12% from 2014 (Coppola, 2020). Consequently, digitalization is one of the most important changes to which companies must adapt. This digital revolution led to the emergence of new concepts and terms such as e-commerce. Both companies and clients were forced to adapt to this ever-evolving world, so decision makers choose to transfer their activity to the digital frame, what explains the appearance of millions of online platforms and sites. Many companies started selling products and services online, consumers on their part, started buying online those products and services.

Figure 1.1: Number of digital buyers worldwide from 2014 to 2021



Source: www.statista.com

The increasing use of the internet by end consumers has presented numerous challenges in the field of marketing research, and more specifically in the field of consumer behavior (Pomirleanu et al., 2013). Consequently, online consumer behavior studies have gained a major importance by researchers.

It is unimpeachable that the digital revolution exerts one of the most powerful influences on consumer behavior, which refers to the way consumers select and use products and services, and that the internet's impact on the society will continue to extend itself as more and more

people become internet users. Hence, marketers become obliged to know everything about their clients and their behavior in a digital world. Consumers' responses are no longer based on the traditional physical environment while at the same time completely new factors manifest, and this is the reason why the study of online consumer behavior has increasingly started looking to other disciplines that confirm the idea that understanding the online consumer behavior relates to important psychological aspects of behavior.

Many things, including environmental factors, personal and psychological factors, family, and culture influence the online consumer behavior. "Understanding the psychology behind online consumer behavior is key to compete in today's markets which are characterized by ever increasing competition and globalization" (Martinez-Ruiz & Moser, 2019, p.1).

Based on Cetina's et al., (2012) research, online perception, trust and personality are the most significant psychological factors influencing online consumer behavior. Online perception can be defined as the interpretation process by which consumers make sense of their own online environment. What increases consumers' fears is the fact that shopping on the Web necessitates trusting unknown and unseen vendors in an unstructured Web environment. In the virtual world consumers may have different personalities as compared to their day-to-day lives and this is the reason personality is a representative factor with a great impact on online consumer behavior.

A review and content analysis of recent empirical studies listed in Darley et al., (2010) review reveals two key themes running through the extant literature. The first deals with personal satisfaction, interest in online shopping, and brand loyalty. The second concerns trust, security and reputation of company.

Trust is an essential ingredient enhancing the site commitment which in turn significantly influences online consumers' purchase behavior (Park & Kim, 2003). Thus, trust is judged pivotal in the online purchase behavior, it affects intention to buy, which often results in a real purchase behavior (Darley et al., 2010).

As mentioned earlier, the online purchase behavior of consumers is influenced by many factors including variables that can be observed directly, such as marketing mixes, product features and environment, and variables that cannot be observed directly, such as psychological, social and cultural variables.

Environmental factors refer to the online atmosphere, it can be represented by: web site interface (design), the quality of its presentation, and web site experience (Darley et al., 2010).

For online consumers, background pictures have been found to influence decision making and product choice while page color has been found to influence perceived download time(Punj, 2012).

The theory of planned behavior suggests that a consumers' attitude towards certain behavior is predictive of the persons' intention to engage in that behavior. Consumer attitude may be defined as a feeling of favorableness or unfavorableness that an individual has towards an object or a behavior. Attitude towards online grocery buying can be measured by an overall evaluation of the attractiveness of carrying out online shopping experience. In a previous study, Hansen, (2008) attitude towards online shopping is found positively related to the willingness to buy products online.

Using their mobile phones and through the internet, more people are connected, and with the emergence of the wireless communication, customers are able to connect anytime and anywhere. Day by day, individuals became more and more attached to the virtual world, the consumer has become rich in terms of information.

Many consumers use the Internet as a tool that helps them collect information on products and services easily and rapidly. The exchange of information between consumers in the internet has an impact on their behavior; this exchange is called e-WOM. Accordingly, this topic has received considerable attention in marketing so that most recent studies focus on the motives of posting complaints or any other negative information, and the impact of e-WOM on online consumer behavior(Cummins et al., 2014).

It is immensely important to mention that online positive reviews increase customers' confidence, reduce their risk, and influence their online purchase behavior. Therefore, e-WOM is one of the significant antecedents that are influencing consumer online purchase behavior(Rahman & Mannan, 2018).

Millions of consumers today are brought together by internet, they wish to share experiences, opinions and information about products, nowadays e-consumer tends to share its experiences with his virtual network, hence, a company's reputation can be measured by the amount of comments and positive and negative reactions on social networks. In an online context, e-consumers become able to know everything they want effortlessly. With this in mind, this research is considered of great importance for online marketers who: (1) want to encourage consumers to both post and read comments on their Web sites (2) want to understand the underlying factors that push a consumer to generate a positive e-WOM.

Despite the endless challenges and obstacles existing in Algeria, many companies started investing in electronic commerce. Yassir, Batolis, heetch, Ouedkniss and Jumia are only parts of a whole.

In 2017, Jumia Algeria received, on average, 20,000 orders per month, and the number of visitors reached 1,7 million visitors per month. These numbers were multiplied in 2020 especially during the pandemic that led to a remarkable increase in demand for online services.

In spite of the fact that much research has focused on online consumer behavior, the topic of this research “Psychological and environmental factors that influence the online consumer behavior” is not completely explained and need to be explored further.

1.1 Main Research Question

It is noteworthy that the digital world in Algeria is developing in an accelerated manner, there are actually hundreds of products and categories offered online, and that demands for online product and services are increasing on a daily basis, due to this, this research aims to answer the following main question:

- What are the psychological and environmental factors that influence the behavior of online consumers and to what extent?

1.2 Sub-questions

- What are and to what extent do salient psychological factors influence online purchase behavior?
- Does the inclusion of environmental factors increase the explanatory power of estimation equation?
- What are the most important external predictors of e-WOM behavior?

1.3 Hypotheses

- Perception, perceived risk, and trust are the most important psychological factors influencing online purchase behavior of Jumia customers.
- The inclusion of environmental factors does not contribute to the online purchase behavior.
- Reference groups, and social presence are the most significant external predictors of e-WOM behavior of Jumia customers.

1.4 Reasons of choosing the research

❖ **Personal reasons:** - Being passionate about consumer psychology.

- The choice of this topic relies on the fact of having a passion about the digital field and the electronic commerce implementation.

❖ **Objective reasons:** - The investigation of this topic will enhance the understanding of consumer behavior in the online context and will help decision makers choose and execute the right courses of actions.

- The choice of this research is also influenced by the lack of studies on this field and the implications of marketing for digital companies.

1.5 Importance of the research

During the pandemic of COVID -19, most companies were compelled to use e-commerce and transfer their activity to the digital context in order to maintain their existence. Giving the fact that e-commerce in Algeria is still growing very slowly due to several reasons, it is of major importance to study the online consumer behavior and to understand what influences it. This helps the marketers to enhance their understanding of what makes a consumer to buy and to make transactions online.

Furthermore, the previous studies carried in this field show that there is actually much more work to be done to uncover all aspects of online consumer behavior, what makes the investigation of this topic very interesting.

1.6 Objectives

The overall aim of this research is to get deeper understanding into the online consumer behavior. The purpose is to determine the salient factors influencing the online purchase behavior and to identify what leads online consumers to generate a positive e-WOM.

Additionally, the study aims to help Jumia Algeria adopt the right strategy, which can help the company meet the expectations of consumers online.

1.7 Research design

In order to answer the main research question, both primary and secondary research must be conducted.

The documentary research aims to build a strong theoretical knowledge regarding the main subject and therefore it will provide a high level of comprehension of it and its different aspects.

In such a study, having a theoretical knowledge is obviously not sufficient. Consequently, a quantitative research will be conducted. Data will be collected using an online questionnaire and analyzed via the statistical software SPSS

To test the hypotheses of the research, multiple regression analysis will be carried out. The multiple regression analysis can be used only if the following preliminary conditions are approved:

1. Sample size: according to the formula $N \geq 50 + 8m$.
2. Outliers: the extreme values that can be identified through the Mahalanobis distance which is determined by the value of chi-square in which the number of independent variables is the degree of freedom and using 0.001 as level of significance. All of Mahalanobis values must be lower than the chi-square square (number of independent variables, 0.001) value.
3. Normality: there are two different ways to test the assumption of normality: the first is examined through normality plot, and the second depends on the standardized residuals values, which must be neither above +3, nor below -3
4. Multicollinearity and Singularity: Multicollinearity refers to the high correlation among independent variables ($\geq .90$). This condition can be examined either by tolerance statistic where this latter should be above 0.1 or through the correlation between independent variables (must be lower than 70%). Whereas singularity refers to the redundancy of variables, in which one variable is a combination of other variables.
5. Independence of residuals: this can be assessed using DW: the DW value is always between 0 and 4, when it is 2 there is no autocorrelation and residuals are independent. Each DW has two values: DL (LOWER) and DU (UPPER). If the calculated value is lower than DL residual are not independent, if calculated value is higher than DU residuals are independent, and if the calculated value from SPSS is between DU and DL then the result is inconclusive.

In case of outliers, the Mahalanobis values that are higher than chi-square value are removed. To get rid of Multicollinearity, factor analysis must be conducted to group correlated variables.

1.8 Research structure:

The research will be divided into six chapters as follows:

Chapter I contains a general introduction that provides an overview about the topic, the purpose is to help the reader get background information about it. The focus of the research is

discussed and justified. In addition, the overall research aim and research objectives are identified. Furthermore, the salient reasons of choosing the topic and the research design appears in this part. At the end of this chapter, an outline of each chapter of the research is attached.

Chapter II is allocated to the literature review regarding the online consumer behavior and the different psychological and environmental factors influencing it. The aim is to prove that the existing work in the field is studied with insight. The review of literature presents in a clear and coherent manner the work done by others concerning the research topic. Also, a variety of relevant sources are cited.

Chapter III aims to inform the reader how the empirical research is done. Accordingly, a description of the case study is included, the goal of this chapter is to provide crucial information on the research methods used, and why the research was implemented. Thus, at the end of the chapter the following questions are answered: What is the overall research strategy? Why it has been chosen? Which sampling approach is carried out and why? How data are collected and analyzed?

Chapter IV reveals the results of the empirical study described in Chapter 3. The data collected will be synthesized and analyzed. In addition, a discussion of the findings is presented. Hence, the degree of correctness of the hypotheses can be defined.

Chapter V represents a general conclusion that includes a recapitulation of the research as a whole, summary of findings and conclusions, recommendations, and self-reflection. The conclusion will contain also the research limitations. The main questions answered by this chapter are the following: what is found out in relation to the research objectives? And what conclusions the researcher has come to?

Chapter VI contains a list of references in which all the resources used to collect secondary data are listed.

Chapter II
Literature Review

Introduction

This chapter represents a literature review that presents clearly and congruently the previous studies carried out in the field of online consumer behavior and examines the main psychological (internal) and environmental (external) factors influencing it. Thus, it will review the main factors influencing electronic word of mouth (e-WOM) behavior. This review of literature focuses on the main research objectives:

1. Enhance the understanding of consumer behavior in the online context.
2. Investigate the way psychological and environmental factors influence online purchase behavior.
3. Identify what causes online consumers to generate a positive e-WOM.

By attaining the above-mentioned objectives, a significant contribution to research is attempted. The salient factors influencing online consumer behavior will be evaluated. Firstly, a simple presentation of what is meant by consumer behavior and online consumer behavior will be stated and considered as a starting point. Secondly, the external and internal factors that influence the behavior of consumers on the internet will be investigated. Finally, a brief definition of WOM and e-WOM behavior will be offered. In addition to provide a general review of main factors influencing it.

By the end of this chapter, a critical understanding of key influencing factors is acquired to be better informed in these areas, and there will emerge a clear understanding of previous empirical and theoretical research in the field of online consumer behavior and e-WOM.

One way or another, every human being has been a consumer since birth and will continue as such until death. Thus, consumer behavior is a central part of human life. It is a changing process where anyone could be user, buyer, seller, or influencer during different stages of life.

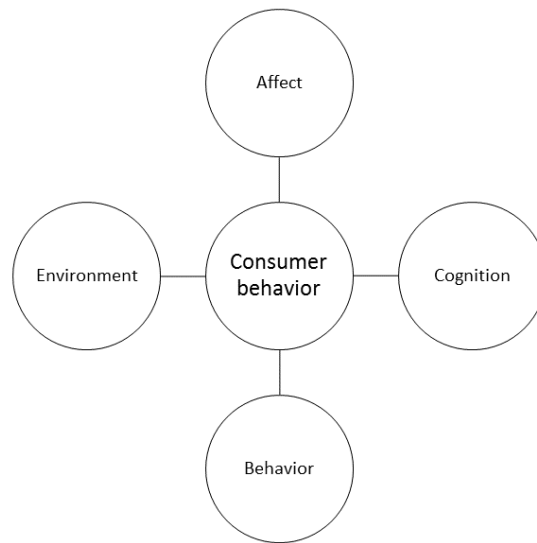
2.1 Consumer Behavior

Consumer behavior refers to the behavior of consumers in different situations. Hence, there exist several definitions of the discipline.

- “It is the study of the processes involved when individuals or groups select, purchase, use, or dispose of products, services, ideas, or experiences to satisfy needs and desires” (Solomon, 2013, p.3).
- “The acquisition, consumption, and disposition of goods, services, times, and ideas by decision making units” (Jacoby, 1976, p.2).
- The American association of marketing defines consumer behavior as “The dynamic interaction between affect and cognition, behavior, and the environment by which human beings conduct the exchange aspects of their lives” (www.ama.org).

It is agreed that consumer behavior is a changing process, and it refers in general to what consumers think, feel, and do, and everything that influences these mental states and actions.

The definitions above show that there are four major elements of consumer analysis: Affect, cognition, behavior, and environment.

Figure 2.1: Elements of consumer behavior

Source : Personal effort

In an attempt to get a deeper understanding of consumer behavior, a brief definition of each element is mentioned below:

2.1.1 Affect

According to Buck (2000) “affect is defined formally as the direct knowledge-by-acquaintance of feeling and desires based on readouts of specifiable neurochemical systems evolved by natural selection as phylogenetic adaptations functioning to inform the organism of bodily events important in self-regulation” (p. 47). Knowledge by acquaintance is a kind of knowledge occurs when the subject has a direct and immediate or unmediated awareness of some propositional truth. Thus, affect refers in general to feeling responses, people experience it in their bodies and that’s the reason it seems to be a part of the person. Affect includes: attitudes, emotions and feelings, moods, attention...etc.

2.1.2 Cognition

“knowledge that is based on raw awareness or knowledge-by-acquaintance. This basic knowledge, driven and guided by motivational-emotional systems, is spontaneously restructured into representational knowledge-by-description over the course of development” (Piaget, 1971).

By contrast with knowledge-by-acquaintance, knowledge-by-description is propositional knowledge that is inferential, mediated, or indirect.

Cognition includes all forms of higher mental processes (conscious and non-conscious ones). Therefore, all the activities that require mental involvement are considered cognitive.

2.1.3 Behavior

consumer behavior as an element of analysis has some specific meaning. It refers to the observable and measurable responses or consumer's actions; named 'overt behavior'. This latter is external and can be observed directly (Peter & Olson, 2010).

2.1.4 Environment

According to Peter & Olson, (2010), the environment refers to the entire external world of consumers which includes a set of physical and social characteristics, such as physical objects, spatial relationships, and social behavior of other people.

The environment also includes culture, subculture, social class, family media reference groups and organizations (Hawkins & Mothersbaugh, 2010).

It is worth to cast light on the fact that these factors interact and influence each other in a continuous and reciprocal manner, no factor can be fully understood in isolation.

2.2 Online Consumer Behavior

The digital revolution exerts one of the most powerful influences on consumer behavior that consumers' responses are no longer based on the traditional physical environment, shoppers are at present looking to the Internet before visiting malls or physical stores.

Digitalization refers to the use and the integration of multiple digital technologies into several domains that can be digitalized (Gray & Rumpe, 2015). With this in mind, digitalization will continue to extend its impact on society and will cover all aspects of daily life.

With the increasing use of the internet by consumers, online sales have increased all over the world, for the current year, the number of online buyers is estimated to reach 2.14 billion consumers, introducing an increase by 62.12% from 2014 (Coppola, 2020). This fact presents numerous challenges in the field of marketing research, and more specifically in the field of consumer behavior (Pomirleanu et al., 2013). Consequently, online consumer behavior studies have gained major attention of researchers.

Based on an examination of the literature in the area of online consumer behavior, (Chan et al., 2003.) claims that most of the constituents of consumer behavior theory have been applied to the study of online consumer behavior. Nevertheless, this finding can be completed with the

fact that the application is not as simple as just adopting those constituents, for the simple reason that there are still important differences between offline and online consumer behavior.

Online consumer behavior is the study of consumers, individually or in a group, in the processes involved when they: select, purchase and use products and services through online channels. Moreover, it deals with the total buying process which is done entirely or partially online, starting from initiating the process and collecting information until using and evaluating the product. (Shareef et al., 2016).

Therefore, online consumer behavior refers to the way consumers select and use products and services using the internet. It describes the process of online shopping from a consumer's perspective.

2.3 Factors Influencing Online Consumer Behavior

As more and more people become internet users, companies are increasingly studying online consumer behavior in order to adapt their sales and marketing strategies to appeal to Internet purchasers. This, with the ultimate aim of remaining competitive in such a hyper competitive market on the Internet.

In many respects, the study of online consumer behavior is the study of the intersection between online consumers and online businesses. Marketers look at how consumers respond to various aspects of an online business, and compare the factors that lead a consumer to either make a purchase or not.

According to literature, several factors, including environmental factors, personal and psychological factors, family, and culture have a vital role in consumer behavior in an online context and influence it each in their own way (Martinez-Ruiz & Moser, 2019).

In their research, Cetinã et al., (2012) find that online perception, trust and personality are the most significant psychological factors influencing online consumer behavior. Moreover, a review and content analysis of recent empirical studies listed in Darley et al., (2010) review reveals two key themes running through the extant literature. The first deals with personal satisfaction, interest in online shopping, and brand loyalty. The second concerns trust, security and reputation of the company.

Based on what was stated above, online consumer behavior is influenced by many factors including variables that can be observed directly, such as marketing mixes, product features and environment, and variables that cannot be observed directly, such as psychological, social and cultural variables.

From this perspective, factors influencing online consumer behavior are divided into two main categories: external and internal factors.

2.3.1 Internal Factors

Mainly psychological factors, they are the personal traits or behaviors which include for example attitudes, perception, involvement, and trust.

The field of internal factors influencing online consumer behavior has gained a major interest by researchers that is because “Understanding the psychology behind online consumer behavior is key to compete in today’s markets which are characterized by ever increasing competition and globalization” (Martinez-Ruiz & Moser, 2019, p.1).

2.3.1.1 Attitudes

The theory of planned behavior suggests that a consumers’ attitude towards certain behavior is predictive of the persons’ intention to engage in that behavior. Consumer attitude may be defined as a general feeling of favorableness or unfavorableness that an individual has towards an object or a behavior. Attitude are composed of three components; beliefs towards, feelings towards and behavioral intentions towards some objects.

Attitude towards online buying can be measured by an overall evaluation of the attractiveness of carrying out an online shopping experience.

Attitude towards online shopping is found positively related to willingness to buy products online, in addition, consumers may link personal values to attitude toward online buying behavior (Hansen, 2008).

2.3.1.2 Perception

Is the interpretation process by which consumers make sense of their own environment. It is an approximation of reality. The brain attempts to make sense out of the stimuli to which it is exposed (Cetină et al., 2012).

Understanding the process of perception and identifying the key factors that influence it, could be much advantageous for companies (Boukerch, 2020). Online perception influences the decision quality which influences in turn online purchase behavior (Punj, 2012).

2.3.1.3 Perceived risk

Almost all kinds of shopping activities involve an element of risk, the marketing literature started exploring the issue of perceived customer risks since the pioneering works of Cox & Rich (1964).

Dash & Saji, (2008) define perceived risk as “the nature and amount of uncertainty perceived by an online customer in contemplating a particular purchase decision” (p.6).

When buying online, consumers are highly affected by their attitude toward risks. It affects their purchase intention and actual purchase behavior (Dash & Saji, 2008).

Lin, (2008) claims that every risk-reducing factor may affect consumers’ willingness to buy and their purchase behavior. Thus, perceived risk has a negative effect on buying behavior. Therefore, consumers tend to focus more on absolute, rather than relative, levels of risk associated with the product alternatives in an electronic environment (Wu & ching, 2015). With this in mind, an increase in perceived risk will cause a negative effect on decision quality in the online environment (Punj, 2012).

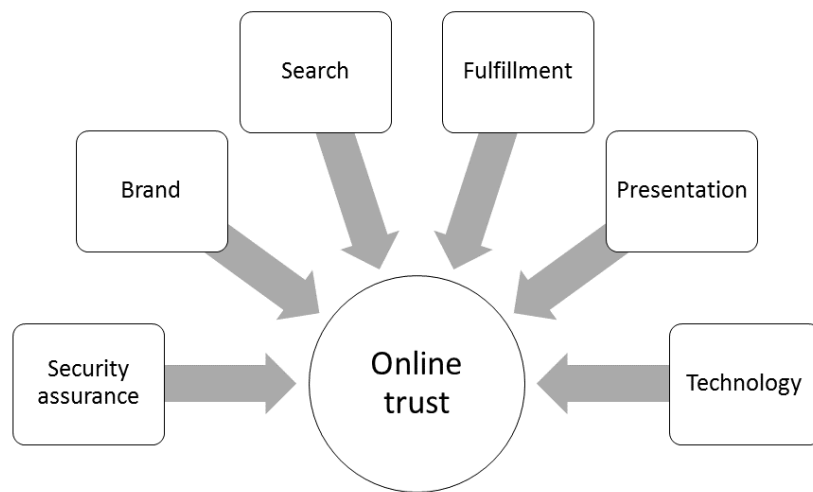
Higher perceived risk associated with online shopping will result in a negative attitude towards intention to make a transaction with the online stores (Dash & Saji, 2008).

2.3.1.4 Trust

The term “trust” is defined in The Oxford English Dictionary as follows: to rely on or have conviction about the quality or attributes of a person or an object, to accept or approve of something without investigation or evidence, an expectation about something, an attribute of reliable value; honesty, credibility, and loyalty.

"Trust can be described as the belief that the other party will behave in a socially responsible manner, and, by so doing, will fulfill the trusting party's expectations without taking advantage of its vulnerabilities" (Pavlou, 2003, p. 106).

According to Yoon’s (2002) study which examined antecedents and consequences of trust in online transactions, online trust is determined by six factors represented in figure 2.2 below.

Figure 2.2: Factors determining online trust

Source : (Yoon, 2002. p4)

Trust is weakened or strengthened by experience and it should be understood as a dynamic process. The six factors presented above formally represent the bases of trust.

In what follows, a simple explanation of each factor is provided

- Security assurance: Performs the role of installing assurance of transaction security.
- Brand: Enables prediction about a firm's credibility based on the firm's reputation and past experience of web visitors
- Search: Provides convenience in finding what a visitor is looking for
- Fulfillment: Provides accurate information on order processing and problem resolution when a problem occurs
- Presentation: Design attributes signifying quality and technology
- Technology: Technical superiority

In the marketing literature, trust has been treated as a key component in the development of marketing relationships (Yoon, 2002), it continues to be one of the critical consumer issues concerning Internet marketing, it's impact on online consumer behavior continues to be one of the central issues facing online marketers (Cummins et al., 2014). Trust is an essential ingredient enhancing the site commitment which in turn significantly influences online consumers' purchase behavior (Park & Kim, 2003). Thus, trust is judged as pivotal in the online

purchase behavior, it affects intention to buy, which often leads to real purchase behavior (Darley et al., 2010). An increase in trust will have a greater positive effect on decision quality in an electronic environment in comparison to a traditional retail environment (Punj, 2012).

Based on Park & Kim's (2003) empirical research, trust also enhances the site commitment which has a positive relationship with purchase behavior, as a result, trust affects positively the consumers' purchase behavior.

From another perspective, trust has a negative impact on perceived risk while an increasing level of consumer trust will cause a diminution in perceived risk associated with online shopping. Consequently, trust affects attitude and risk perception, which in turn influence the willingness to buy through the internet (Dash & Saji, 2008).

Lack of trust has always been considered as one of the main reasons why consumers are not engaging in e-commerce (Kim et al., 2008). Hence, the willingness of e-consumers to trust an online vendor or online service provider may be related to overall trust or lack of trust in the digital technology itself (the internet). This lack of trust with the internet could result from unfamiliarity with the medium, from an innate fear of technology, or from some personality-based antecedent (Das et al., 2003.). The importance of trust is increasing because there is a high level of uncertainty and risk that occurs in the online transaction (Dachyar & Banjarnahor, 2017).

2.3.1.5 Intention

The intention to make a transaction or performing another behavior is defined as the willingness of buyers to engage in the exchange relationship at shopping websites (Dachyar & Banjarnahor, 2017).

There exist numerous factors that influence intention. In the first instance, Trust, risk, perceived usefulness and benefit are found to have a significant impact on purchase intention (Dachyar & Banjarnahor, 2017). Next, another study shows that psychological factors, namely, consumer's motivation, perception and belief influence the consumer's willingness to buy (Abdu, 2013).

Otherwise, intention to purchase online is based on the relationship between behavioral intention and actual behavior. Then, purchase intention to make transaction is a factor that predicts the actual behavior or the purchase decision of consumers.

2.3.1.6 Involvement

“Is a psychological perception of affairs based on inner demands, values and interest of an individual” (Lin, 2008, p.5).

A standard definition among multiple researchers is that level of involvement with a product represents the level of relevance or importance that a specific product has for a consumer (Greenwald & Leavitt, 1984). From this perspective, involvement varies by consumer, not by product, where the consumer is the one who decides whether a product represents a high or a low involvement. When consumers perceive that the product is highly associated with their requirements, they will run into a highly involved state and vice versa.

Lin, (2008) finds that involvement has a positive impact on online consumer behavior. Hence, the possibility of actual behavior grows with the increase of product involvement.

2.3.1.7 Personality

In the virtual world consumers may have different personalities as compared to their day-to-day lives, “The notion of a virtual personality or virtual self provides an individual with the opportunity to try on different personalities or different identities, much like going to the mall and trying on different outfits in a department or specialty store” (Schiffman & Kanuk, 2009). Social networks are filled with ideal selves projected by people to increase their chances of socializing with others (Solomon, 2013). this is a possible reason why personality is a representative factor with large impact on online consumer behavior (Cetină et al., 2012)

2.3.1.8 Need for cognition

Need for cognition” (NFC), seeks to identify differences among individuals in their tendency to engage in and enjoy thinking (Cacioppo & Petty, 1982). Individuals differ in the way they cognitively process information such as analytical versus global processing, or visual versus textual processing. Need for cognition has a strong direct effect on information seeking behavior on the Web. It is also found that information seeking on the Web leads to purchases on the Web (Das et al.,2003.). Consequently, need for cognition has a positive indirect impact on purchase behavior.

2.3.2 External Factors

The external or environmental factors are the ones beyond the control of consumers. They can be divided into four sectors namely product/service quality; socio-demographic and cultural factors such as culture, sub- culture, social class, gender, reference groups, and family;

situational and economic factors; and online atmospherics or environmental aspects which can be represented by: website interface (design), the quality of its presentation, and web site experience (Darley et al., 2010).

2.3.2.1 Socio demographics

The theory of planned behavior identified that the combination of education and income may have some effect on the purchase intention. Gender, occupation, sector of employment are not very important factors that affect online purchase behavior (Baubonienė & Gulevičiūtė, 2015).

In relation to gender, Sam & Sharma (2015) find that female consumers tend to purchase products online more frequently when compared to males. Females also seem more comfortable purchasing clothing items online while males seem more comfortable purchasing electronics online.

2.3.2.2 Reference groups

According to Cetinã et al., (2012), in the online environment, consumer behavior is mostly influenced by the virtual groups e-consumers are part of, and therefore, by e-WOM.

“The types of consumer reference groups are: friendship groups, shopping groups, work groups, virtual groups or communities, and consumer-action groups” (Schiffman & Kanuk.,2009).

Opinion leaders are considered as one of the important actors in society, these leaders can therefore influence the buying decisions of others, in particular because of certain personal attractions, their particular knowledge or their connection with their audience (Lin et al., 2018; Torres et al., 2019). Today, these leaders come forward via social media to exert influence over their followers and are called ‘influencers’. Thus, the term ‘influencer’ refers to any person who is able to impact the decision-making process of another person or group (Enke & Borchers, 2019).

These influencers can impact their subscriber’s choices and opinions through partnerships with companies, either by integrating promotional posts into their social media posts or by making paid physical appearances at events (Abidin, 2016).

In fact, the phenomenon of influencers operating on social media is fairly new, but already well established in the marketing industry as 54% of marketers consider influencers to be an integral part of their marketing strategy (Williamson, 2019).

However, this phenomenon is not fully mastered and poses numerous challenges for marketing professionals.

2.3.2.3 Service/product quality

A consumer is attracted towards a particular product or service on the basis of its quality and the price bracket it comes within (Malik & Guptha.,2013). Thus, if the quality of the product/service does not meet the expected standard of consumers then it is going to influence negatively their online purchase behavior (Bhattacharjee & Chetty.,2019).

2.3.2.4 Website aesthetics

Represent the artistic and creative elements of the online presentation including website design, the quality of its presentation, and the web site's style/atmosphere (Cetină et al., 2012). The design and atmosphere of Web sites must attract the attention and capture the interest of the online consumers in a very short time by inducing positive and powerful motives for visitors to stop browsing, explore and possibly interact with the site.

Design and style/atmosphere of Web sites are elements quite crucial in shaping the online experience and the buying decision making process, they are considered as important factors affecting online purchase behavior (Constantinides, 2004).

Lee & Lin (2005) develop a model to investigate the link between e-service quality, customer satisfactions, and consumers' intention to make online transactions, the findings of the study suggest that website design has an impact on the service quality, the research also conclude that online stores should focus on e-service quality attributes to enhance purchase intention of online shoppers.

However, and in contrast with the results of some studies (e.g. Lee & Lin, 2005; Constantinides, 2004) the study of Adnan (2014) indicates that website design and aesthetics does not have a significant positive relationship with purchase intentions.

These different results can be explained by whether the online market in which the study was conducted is strong and developed or not. Moreover, it can be due to the amount of competition faced in these markets.

In some strong and highly competitive online markets, consumers focus on website design and aesthetics just as much as they focus on utilitarian factors while shopping online.

In such a situation, online marketers cannot neglect service quality attributes that are necessary to enhance purchase intention of online shoppers (Adnan, 2014).

2.3.2.5 Website quality

Website quality can be measured by ease of navigation, convenience, the amount of information available, or the quality of information available, and user interface quality (Darley et al., 2010). Information quality, and user interface quality affect information satisfaction, which in turn, significantly relates to site commitment and actual purchase behavior (Park & Kim, 2003).

Online marketers and companies which carry out their activities in an online context should be aware of the fact that consumers always expect the websites to offer them a positive experience through the quality of the website that delivers relevant and well-structured information in an interactive manner (Rahman & Mannan, 2018).

2.3.2.6 Website social presence

Website social presence implies the virtual features incorporated in the online store, it explores how human warmth and sociability can be integrated through the web-interface in order to positively influence consumer attitudes towards online shopping.

Dash & Saji, (2008) empirical study shows that website social presence has significant positive influence on perceived usefulness and trust. On other hand, social presence is found negatively related to perceived risk.

Thus, an increased level of social presence embedded in a website, will result in a greater perceived usefulness, trust and will reduce perceived risk associated with online shopping.

Creating a sense of human touch, social networking, friendliness, and a feeling of belongingness on the website must improve its social presence.

2.4 Electronic Word of Mouth (E-WOM)

Before digitalization, consumers talked of product and services. That is word of mouth was spreaded regarding their experience with products and services. WOM is defined as “informal one-to-one communication otherwise, and between a sender and a receiver on a brand, product, service or organization” (Harrison-Walker, 2001, p. 62).

In general, WOM may be defined as an informal type of communication between private parties concerning the evaluation of goods and services and it has been considered to be one of the most powerful forces in the marketplace (Abdullah et al., 2016).

Today, millions of consumers are brought together by the internet, they wish to share experiences, opinions and information about products, nowadays e-consumer tends to share its experiences with his virtual network. Accordingly, a company's reputation can be measured by the amount of comments and positive or negative reactions on social networks.

Electronic word of mouth (e-WOM) is described as “any positive or negative statement made by potential, actual or former customers about a product or company which is made available to a multitude of people and institutions via the internet” (Hennig-Thurau et al., 2004, p.39)

Many consumers use the Internet as a helping tool to collect information on products and services easily and rapidly. Thus, consumers have become rich in terms of information. The exchange of information between consumers in the internet has an impact on their behavior; this exchange is called e-WOM. Accordingly, this topic has received considerable attention in marketing so that most recent studies focus on the motives of posting complaints or any other negative information, and the impact of e-WOM on online consumer behavior (Cummins et al., 2014).

It is noteworthy that online positive reviews increase customers' confidence, reduce their risk, and influence their online purchase behavior. Therefore, e-WOM is one of the significant antecedents that are influencing consumer online purchase behavior (Rahman & Mannan, 2018).

2.4.1 Factors Influencing e-WOM

In an online context where individuals become more and more attached to the virtual world and with the emergence of wireless communication that allows them to connect anytime and anywhere, e-consumers today are able to know everything they want effortlessly. With this in mind, understanding the underlying factors that influence online consumer's e-WOM behavior is considered of great importance for online marketers who want to encourage consumers to both post positive reviews and read comments on their websites.

In a context of electronic word of mouth, the information generated by other consumers are often perceived to be more credible than the information generated by the company itself, hence, e-word of mouth is taken into consideration when making purchase decisions (De Valck, & Van, 2009).

Eight factors influencing e-WOM can be distinguished and presented in the figure 2.3 below, namely: concern for other consumers, helping the company, social benefits, customer

satisfaction, customer loyalty, website quality, perceived usability, and finally improving self-image.

Figure 2.3: Factors influencing e-WOM



Source : Personal effort

2.4.1.1 Concern for other consumers

E-WOM communication on Web-based opinion platforms may be initiated because of a desire to help other consumers with their buying decisions or to save them from negative experiences, or both.

Concern for other consumers has positive impact on e-WOM behavior (Hennig-Thurau et al., 2004).

Such communication can include both positive and negative consumer experiences with a product or company.

2.4.1.2 Helping the company

It is the result of a consumer's satisfaction with a product and his or her subsequent desire to help the company (Sundaram et al., 1998).

Helping the company factor positively influences e-WOM behavior (Hennig-Thurau et al., 2004).

2.4.1.3 Social benefits

When consumers express their opinions online or share their experiences and interact, they become part of a virtual community. Affiliation with a virtual community can represent a social benefit to a consumer for reasons of identification and social integration.

Thus, it can be presumed that consumers engage in e-WOM communication to participate in and belong to online communities and gain that social benefit (McWilliam, 2000; Oliver, 1999).

2.4.1.4 Customer satisfaction

Satisfaction may be defined as an affective customer condition that results from a global evaluation of all the aspects that make up the customer relationship with producer, product seller or service provider (Severt, 2002).

According to many authors, positive WOM is expressed when satisfaction with the product or service is high (Anderson, 1998).

This hypothesis has been validated in a number of empirical studies (eg, Casaló et al., 2008) in which it is found that positive/negative customer satisfaction is linked to a positive/negative e-WOM.

Unexpectedly, satisfaction is found to be a significant factor driving individuals to e-WOM behavior but its effect is weaker compared to the strong effects of service quality and perceived usefulness (Li et al., 2013).

2.4.1.5 Customer loyalty

An empirical analysis has shown that perceived customer loyalty is a key determinant of positive e-WOM, where greater customer loyalty is directly and positively related to greater levels of positive e-WOM (Casaló et al., 2008).

2.4.1.6 Website quality

To attract customers to visit and revisit their sites, online vendors attempt to build websites that meet customer's needs and expectations according to the customer's perspective (Chaniotakis & Lympelopoulou, 2009).

Rezvani & Safahani., (2016) have stated six major elements defining the website quality namely: shopping convenience, site design, information usefulness, transaction security, payment systems and customer communication.

Website quality is found to exert a positive effect on e-WOM and customer satisfaction, where Greater customer satisfaction is directly and positively related to greater levels of positive WOM (Rezvani & Safahani., 2016).

2.4.1.7 Perceived usability

“Website usability reflects the perceived ease of navigating the site or making purchases through the Internet and it is considered a critical factor on the development of electronic commerce” (Casaló et al., 2008).

Website usability can be measured using the following factors:

- ❖ The ease of understanding the structure of a system and its functions.
- ❖ The simplicity of use of the website.
- ❖ The speed with which the users can find what they are looking for.
- ❖ The perceived ease of site navigation in terms of time required and action necessary in order to obtain the desired results.
- ❖ The ability of users to control what they are doing, at any given moment.

perceived website usability has a direct and positive influence on customers satisfaction which positively influences in turn e-WOM behavior (Casaló et al., 2008).

From a similar perspective, Li et al., (2013) argue that perceived website usability positively relates to consumer’s e-WOM behavior

To sum up, perceived usability is an indirect antecedent of e-WOM through satisfaction.

2.4.1.8 Improving self-image

The improvement of self-image and expertise is strongly linked to the notion of opinion leader (Goldsmith & Clark, 2008). The opinion leader is an individual who influences informally the behavior of other people in a given direction. His opinions and recommendations are solicited by those around him before and after purchasing a product or service (Verette, 2002).

Many consumers are looking for an opinion leader’s position in society, thus, improving self-image motivates e-consumers to post comments and express their opinion, which explains the positive relationship between improving self-image and e-WOM.

Conclusion

The study of relevant online consumer behavior literature reveals that online consumer behavior is a continuously changing process. To begin with, online consumer behavior refers to the way consumers select and use products and services using the internet. It describes the process of online shopping from a consumer's perspective. In addition, there are several internal (psychological such as: attitudes, perception, perceived risk, trust, personality, intention, and need for cognition), and external (environmental as socio demographics, reference groups, website quality, and website social presence) factors that influence the buying behavior of online consumers.

On the other hand, the examination of exiting literature in the field of electronic word of mouth shows that there are also many factors that exert a significant impact on e-WOM consumer's behavior, eight of them were distinguished and presented namely: concern for other consumers, helping the company, social benefits, customer satisfaction, customer loyalty, website quality, perceived usability, and finally improving self-image.

The review of literature stressed the need for e marketers to have a clear understanding and deep knowledge of the factors that can influence the behavior of their online customers.

In what follows, this research emphasis on the investigation of how do perception, attitude, perceived risk, trust, website quality, website social presence, Service/product quality, and reference groups influence online purchase behavior and e-WOM behavior.

To arrive at a deeper understanding of factors influencing online purchase behavior and e-WOM behavior, empirical research will be implemented.

The next stage of this research gives details of the research methods to be used to capture the empirical data, including details on the research strategy to be adopted, data collection techniques, and sample selection.

Chapter III
Research Methods

Introduction

This chapter describes in detail the research methodology that will be used in this study. Firstly, a brief definition of the research design is provided, including exploratory and conclusive research. Exploratory research involves secondary data and qualitative research, while conclusive research includes descriptive and causal designs. Secondly, the primary scales of measurement and the major scaling techniques used are described. Thirdly, a simple explanation of how questionnaire is designed and how sampling is processed. Finally, a preliminary plan for data analysis is addressed.

Overall, this chapter reveals the details regarding the research methodology implemented with the aim of answering the research's sub-questions, and to test hypotheses.

- **Main research question:** What are the psychological and environmental factors that influence the behavior of online consumers and to what extent?
- **Sub-questions**
 - What are and to what extent do salient psychological factors influence online purchase behavior?
 - Does the inclusion of environmental factors increase the explanatory power of estimation equation?
 - What are the most important external predictors of e-WOM behavior?
- **Hypotheses**
 - Perception, perceived risk, and trust are the most important psychological factors influencing online purchase behavior of Jumia customers.
 - The inclusion of environmental factors does not contribute to the online purchase behavior.
 - Reference groups and social presence are the most significant predictors of e-WOM behavior of Jumia customers.

3.1 Research Stimulus

In an attempt to place the study in a specific context, the company Jumia Algeria is taken as a case study, and the research has been done on its customers. Accordingly, the practical internship is done in the company Jumia Algeria in Algiers. The duration of internship was two months (April 11 to June 07), in which, it was possible to work during with all departments.

Even if this internship was an opportunity to learn in depth how an important e-commerce company is managed, it is chosen to make just one very succinct presentation of it. This is a content that, although rich, did not relate directly to our research topic. In what follows, a general overview of the host company is provided.

3.1.1 General Overview of Jumia Group

Jumia is a Pan-African Group founded in 2012 by Mr. Sacha Poinconnec and Jeremy hodara. This group is more than 20% owned by Rocket Internet, a German incubator with launched Startups such as: zalando, kaymu and jovago in Africa.

Jumia has extended its activity since creation in 14 African countries which are Algeria, Morocco, Tunisia, Kenya, Egypt, Uganda, Cameroon, Senegal, Ghana, Rwanda, South Africa, Tanzania and the Ivory Coast. In June 2016, Jumia becomes the flagship brand of the group during a rebranding operation; kaymu becomes Jumia market, jovago becomes Jumia travel, Hello food becomes Jumia food, vendito becomes Jumia Deals, lamudi becomes Jumia house, ever jobs becomes Jumia jobs, carmudi becomes Jumia cars, algx becomes Jumia Services.

Jumia's platform is a marketplace. It brings sellers and buyers together in one place, by providing them with a logistics service, allowing shipment and delivery of packages in addition to a payment service. It is a kind of online shopping center in which, In 2019, more than 80,000 sellers offer a wide range of products and services to the demand: household and electronic appliances, fashion, children's toys but also services such as hotel or plane reservations, and meal delivery. Jumia is in particular described as "African Alibaba" or "African Amazon".

Today More than 5,000 people work directly with Jumia and almost 100,000 people indirectly on the continent. On April 12, 2019, Jumia is the first technology company solely dedicated to the African market listed on the New Stock Exchange York (JMIA - NYSE). It is currently the most visited online platform on the continent.

3.1.2 Jumia Algeria

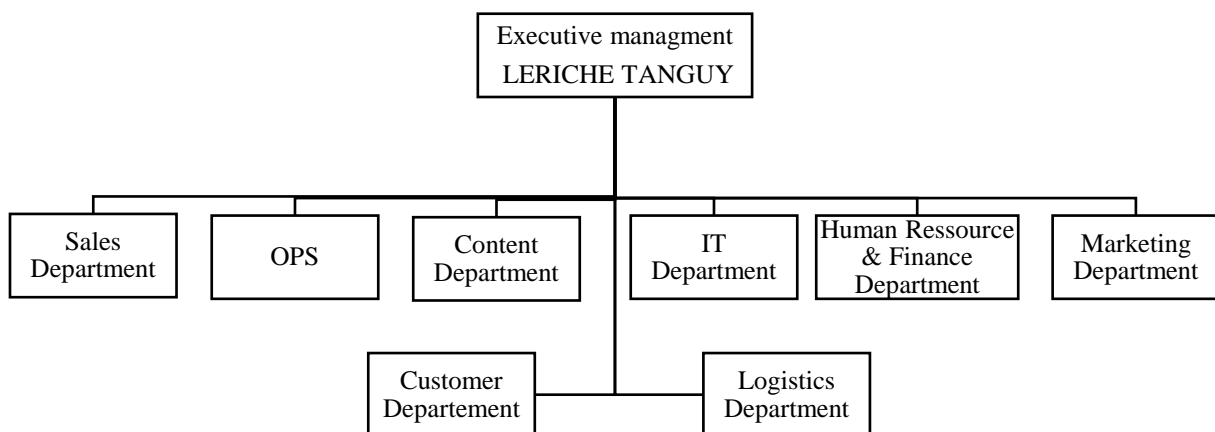
Jumia Algeria is a SARL created in 2014 and headquartered in Dely Ibrahim, Algiers. It employs over 300 people.

Jumia Algeria is the main internet platform in Algeria specializing in the purchase and online sales. Its official Jumia dz facebook page as well as its Jumia.dz site have a half million unique visits and 40,000 transactions on average per day over the entire national territory. It offers a large assortment of products and services which it ensures delivery in 43 wilayas.

At the beginning, the company had an average delivery time of one week, today the delivery time varies between 1 and 7 days (in Algiers between 1 and 2 days, in other wilaya between 3 and 7 days). The site allows payment in cash on delivery.

Jumia Algeria is structured into eight departments (shown schematically in the organizational structure below). These departments are: sales, marketing, customer service, HRD and finance, OPS (operations services), content writing, photography and IT.

Figure 3.1: Jumia Algeria Organizational Structure



Source: internal document provided by Jumia company

In the first trimester of 2021, the number of vendors on the platform reaches 900 online sellers. Additionally, Jumia Algeria officials say that their platform receives more than 1,700,000 visits per month. 55% of visitors are men while 45% are women. Women are more

reluctant and take more time to survey those around them. The Algerian female consumer prefers to order products related to well-being, maintenance of her home, and clothes.

3.2 Research Design

In tune with the nature of the research questions, this study employs both exploratory and conclusive approach.

3.2.1 Exploratory Research

The study uses this approach in order to define the research problem more accurately and to get a deeper understanding of the topic.

exploratory research is important to gain familiarity with the phenomenon of interest and to understand what is happening before a theoretical model is developed and tested empirically (Malhotra, 2010).

In this study, it is necessary to use exploratory research to gain more information for developing a reliable theoretical framework for psychological and environmental factors influencing online consumer behavior. The main methods used in explanatory research are qualitative research and secondary data.

3.2.1.1 Secondary data

Secondary data is the data that has already been collected through primary sources and made readily available for researchers to use for their own research. It is a type of data that has already been collected in the past (Malhotra, 2010).

Sources of secondary data includes books, personal sources, journals, newspapers, websites, government records.... etc. Secondary data are known to be available and requires very little research and need for manpower to use compared to primary data especially with the advent of electronic media and the internet.

3.2.1.2 Qualitative research

According to Creswell (2009), qualitative research is designed to gain an in-depth knowledge of a specific subject. Qualitative research is ideal to explore feelings, thoughts, emotions and perceptions of individual from a variety of sources. These sources include people, environments, texts, artifacts, and events (Sekaran & Bougie,.2009).

The main methods used in qualitative research are divided into direct and indirect methods. Direct methods include focus groups (small groups of respondents interviewed in an unstructured manner where a well-trained regulator is in charge) and depth interviews (unstructured and personal interviews in which a single respondent is involved, the interview is conducted by a highly qualified interviewer), while projective techniques (including word association, sentence completion, picture response, cartoon test, role playing, and third person techniques) represent indirect methods.

The present research employs secondary data analysis, in which, both internal and external secondary data were collected and reviewed. The previous chapter entitled 'Literature Review' reveals the most relevant information obtained after analyzing the secondary data about the topic of this research.

3.2.2 Conclusive Research

Conclusive research is formal and structured research. "It is based on large and representative samples, and the data obtained are subjected to quantitative analysis" (Malhotra, 2010, p 72).

The main objective of conclusive research is to test hypotheses and examine relationships (Malhotra, 2010).

conclusive research designs may be either descriptive or causal, and descriptive research designs may be either cross-sectional or longitudinal.

3.2.2.1 Descriptive research

Descriptive research is used to describe phenomenon or characteristics of consumers, organizations, or market areas. It is also used to estimate the percentage of units in a specified population proving a certain behavior.

The objectives of descriptive research include: determining the perceptions of product characteristics, determining the degree to which specific variables are associated and making specific predictions (Malhotra, 2010).

Descriptive research methods can be classified into cross-sectional (the collection of information from a sample of population elements only once) and longitudinal research (in this method same people are repeatedly studied over time and the same variables are measured) (Malhotra, 2010).

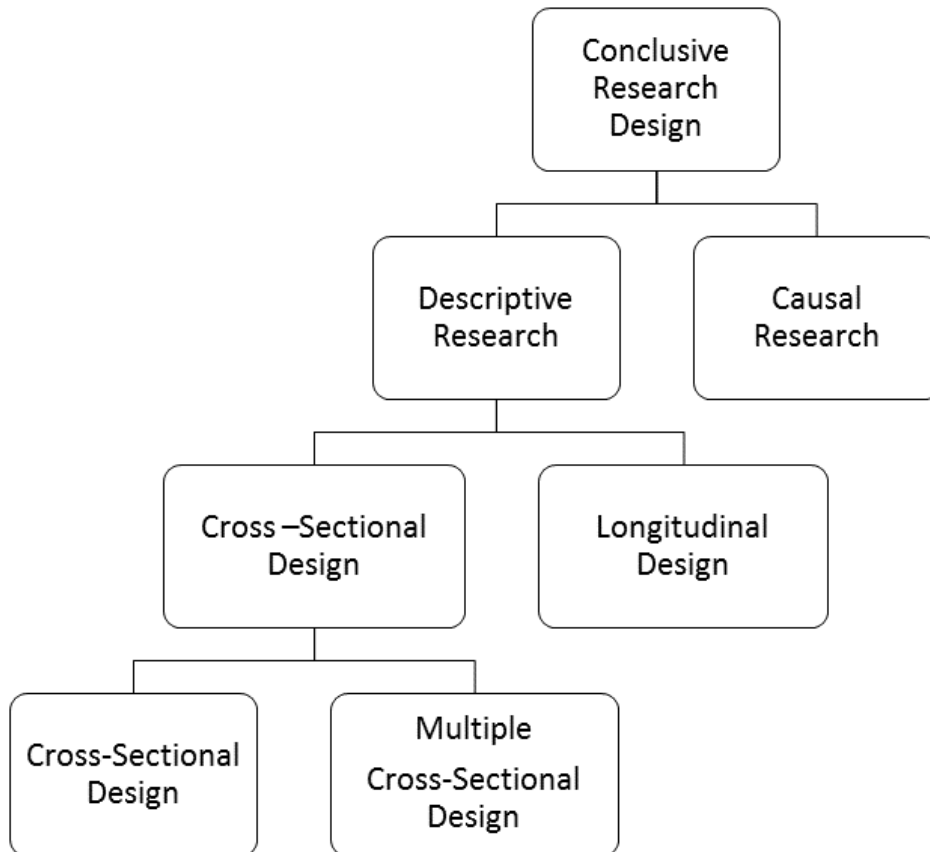
3.2.2.2 Causal research

Causal research is used to examine cause-and-effect relationships. The aim is to understand which variables are the cause (independent variables) and which variables are the effect

(dependent variables) of a phenomenon, and to determine the nature of the relationship between variables (Malhotra, 2010).

The different conclusive research designs are summarized in figure 3.1 below.

Figure 3.2: A classification of conclusive research design



Source: Malhotra, (2010) p.71

Since the research questions are problematic in nature and to examine the proposed hypotheses, a descriptive single cross-sectional research is conducted. In single cross-sectional designs, only one sample of respondents is drawn from the target population, and information is obtained from this sample only once.

3.3 Questionnaire Design

3.3.1 Adoption of questions

Scale development was based on the review of the most relevant literature on online consumer behavior and the recent advances in e-marketing.

Table 3.1: Adoption of questions

Variables	Adopted from	Number of Items
Purchase behavior	Das et al., (2003) and Sam & Sharma, (2015).	1
Perception	Sam & Sharma, (2015) and Dachyar & Banjarnahor, (2017).	6
Perceived risk	Sam & Sharma, (2015) ; Park & Kim, (2003) and Dash & Saji, (2008).	6
Trust	Dash & Saji, (2008) and Jiang et al., (2016).	4
Website quality	Dachyar & Banjarnahor, (2017); Li et al., (2013); Park & Kim, (2003) ; Beauchamp & Ponder, (2010) ; Dash & Saji, (2008) ; Sam & Sharma, (2015) and Constantinides, (2004).	8
Website social presence	Dash & Saji, (2008).	3
Service/product quality	Beauchamp & Ponder, (2010) and Jiang et al., (2013).	3
Reference groups	Akyüz, (2013).	2
E-WOM behavior	Hennig-Thurau et al., (2004); Dash & Saji, (2008) and Casaló et al., (2008).	5

Source: Personal effort

3.3.2 Measurement scaling

The questionnaire that includes the research questions of the study was prepared as one form that is composed of three sections. The first section contains two questions about online purchase behavior. The first is a single choice question regarding the frequency of purchase, and the second is a multiple-choice question which investigates which site do online consumers often use to perform their transactions.

The second section includes interval scales in which 7-point Likert scale questions are posed. The participants assess the suitability of 37 expression regarding the factors influencing purchase behavior and e-WOM on the Likert scale. The answers given to the respondents were carried out by granting 7 points to the choice “I strongly agree” and by granting 1 point to the choice “I strongly disagree”.

In the third section of the questionnaire, there were 2 single choice questions and 1 dichotomous question regarding the demographics and the income of the respondents. First and second questions about age and income are considered ratio scales, while the last question about sex represents a nominal scale.

3.3.3 Types of questions

To examine the proposed hypotheses and collect empirical data, an online, self-administered survey is launched.

The questionnaire is composed of several types of questions chosen according to the type of information required. It consists of 42 questions divided into 3 sections, and includes the following question forms:

- Dichotomous questions.
- Multiple choice questions.
- Single choice questions.
- Scale questions.

As mentioned earlier, the content of questionnaire is separated into three sections. First of all, the questionnaire starts with a dichotomous qualifying question which allows to check whether the respondent belongs or not to the target population.

The first section contains two questions regarding online purchase behavior. The first question investigates how often do online consumers buy from an online website, while the second aims to identify the commonly used websites.

The second section of the questionnaire includes the items that measure the independent variables.

- Questions from 3 to 8 measure perception,
- Questions from 9 to 14 examine perceived risk
- Questions from 15 to 18 are questions describing trust
- Questions from 19 to 26 investigate website quality
- Questions from 27 to 29 deal with website social presence
- Questions from 30 to 32 regarding service/product quality
- Questions from 33 and 34 investigate the impact of reference groups
- Questions from 35 to 39 measure the E-WOM behavior of online consumers.

All the above-mentioned items are evaluated by seven –point Likert scale, ranging from strongly disagree to strongly agree.

The third section is the basic demographic survey which consists of three questions in measuring respondent's profiling such as gender, age, and monthly income.

The data collection process of the research was carried out between 23 and 31 may 2021. The sample of the study was drawn from social media users. Within this period, the respondents were reached via Facebook, WhatsApp, and e-mail. The questionnaire was answered by giving link to google forms where it was made. The questionnaire was answered by 253 respondents. However, after editing, only 121 remained for analysis.

3.4 Sampling Design

Sampling design begins with identifying the population to be studied; named target population or the mother population, which is made up of all the elements or objects that bring together the information required. After having defined the target population, it is also necessary to be able to locate the elements of this population in order to join them (Westfall, 2009). A sampling frame is a list of items in which all the elements of the target population are represented. To select the study sample from the sample frame defined in advance, several sampling methods exist involving probabilistic and non-probabilistic methods (Malhotra).

Non-probability sampling relies on the personal judgment of the researcher (non-probability sampling techniques include convenience sampling, judgmental sampling, quota sampling, and snowball sampling),

In probability sampling, sampling units are selected by chance (techniques involving simple random sampling, systematic sampling, stratified sampling, and cluster sampling).

In this case, the target population consist of individuals who have used at least once Jumia website to make an online purchase.

Due to the absence of sampling frame from which the selection of elements will be made, the method of sampling used in this research is a non-probability sampling technique. In particular, a judgmental sampling technique is used.

Regarding the sample size, the research adopts the method which is adequate to the linear regression analysis (the analysis which the study will use for data analysis) and that's for the same reason of choosing a non-probability sampling technique.

The sample size is calculated according to the following formula: $N \geq 15m$, where m represents the number of independent variables. Thus, the minimum sample size for this study is 120 respondents ($15 \times 7 = 105$).

3.5 Preliminary Plan for Data Analysis

3.5.1 Linear regression analysis

Since the study aims to examine the nature and the degree of association between dependent and independent variables, linear regression analysis is the most suitable analysis to conduct. From this perspective, multiple regression analysis is carried out to test the hypotheses of the research using SPSS software for data analysis

The multiple linear regression model helps to understand how much will the dependent variable change when the independent variables change, it describes the relationship between variables by fitting a line to the observed data. Linear regression models use a straight line, while logistic and nonlinear regression models use a curved line.

The multiple regression analysis can be used only if the following preliminary assumptions are tested and approved:

- **Sample size:** according to the formula $N \geq 15n$. Where n represents the number of independent variables.
- **Outliers:** the extreme values that can be identified through the Mahalanobis distance which is determined by the value of chi-square in which the number of independent variables is the degree of freedom and using 0.001 as level of significance. All of Mahalanobis values must be lower than the chi-square square (number of independent variables, 0.001) value.

- **Normality:** there are two different ways to test the assumption of normality: the first is examined through normality plot, and the second depends on the standardized residuals values, which must be neither above +3, nor below -3
- **Multicollinearity and Singularity:** Multicollinearity refers to the high correlation among independent variables ($\geq .90$). This condition can be examined either by tolerance statistic where this latter should be above 0.1 or through the correlation between independent variables (must be lower than 70%). Whereas singularity refers to the redundancy of variables, in which one variable is a combination of other variables.
- **Independence of residuals:** this can be assessed using Durbin Watson (DW) test; the DW value is always between 0 and 4, when it is 2 there is no autocorrelation and residuals are independent. Each DW has two values: DL (LOWER) and DU (UPPER). If the calculated value is lower than DL residual are not independent, if calculated value is higher than DU residuals are independent, and if the calculated value from SPSS is between DU and DL then the result is inconclusive.

In case of outliers, the Mahalanobis values that are higher than chi-square value are removed. To get rid of Multicollinearity and to group correlated variables, factor analysis must be conducted.

Conclusion

This chapter has provided the rationale and operational details of the research strategy used in this study. That is to say, the research methodology carried out for the identification of main psychological and environmental factors that influence both purchase behavior and e-WOM behavior of online consumer is described in detail.

At first, a general overview of the company Jumia Algeria is presented. After that, the research design, questionnaire design, and sampling design are described and explained. Finally, a preliminary plan for data analysis is provided.

The present study employs both exploratory and conclusive research using secondary data analysis and descriptive single cross-sectional research (a quantitative research).

To meet the stated objectives of the study and test its initial hypotheses, an online self-administered questionnaire is used. Concerning the sampling design, a judgmental sampling technique is chosen. It refers to a non-probabilistic sampling technique used in cases where a sampling frame from which the selection of elements will be made is not available. Respondents were reached via Facebook, WhatsApp, and e-mail. It is also stated that obtained data are analyzed through a multiple regression analysis using the SPSS software.

The next chapter – Empirical Study Findings – initially describes, discusses and analyses the results of the quantitative research.

Chapter IV
Research Findings

Introduction

This research attempts to cast light on the psychological and environmental factors that can affect the online consumer's purchase behavior and its e-WOM behavior. In accordance with research hypotheses that we had formulated, it's expected that:

- Perception, perceived risk, and trust are the most important psychological factors influencing online purchase behavior of Jumia customers.
- The inclusion of environmental factors does not contribute to the online purchase behavior.
- Reference groups and social presence are the most significant predictors of e-WOM behavior of Jumia customers.

The objective of this chapter is to test these hypotheses using a quantitative study. Through the use of the judgmental sampling method, 121 completed questionnaires were collected. Data then were exported to the SPSS software in order to use them to accept or reject the research's hypotheses.

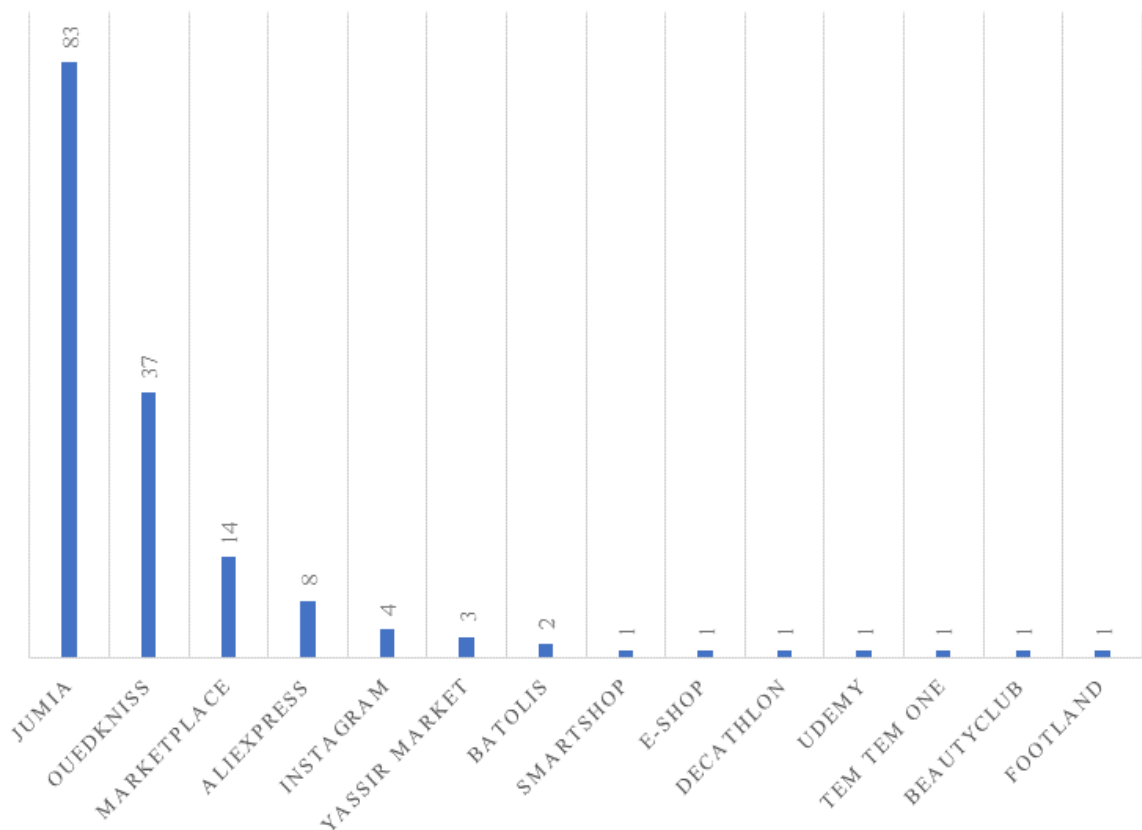
This chapter describes the analysis of data followed by a discussion of the research findings in detail. The findings relate to the research questions that guide the study. The first part of this chapter deals with descriptive statistics of the population such as age, sex, personal income.... etc. The second aims to test the different hypotheses.

4.1 Descriptive analysis

In order to analyze the characteristics of the respondents, the research opted for a descriptive analysis based on the commonly used websites question and the various socio-demographic criteria namely; gender, age and personal income is opted. The objective was to draw up the profile of the respondent and to summarize the information collected relating to the studied sample.

4.1.1 The commonly used websites for online purchases by respondents

Figure 4.1: Commonly used websites by respondents

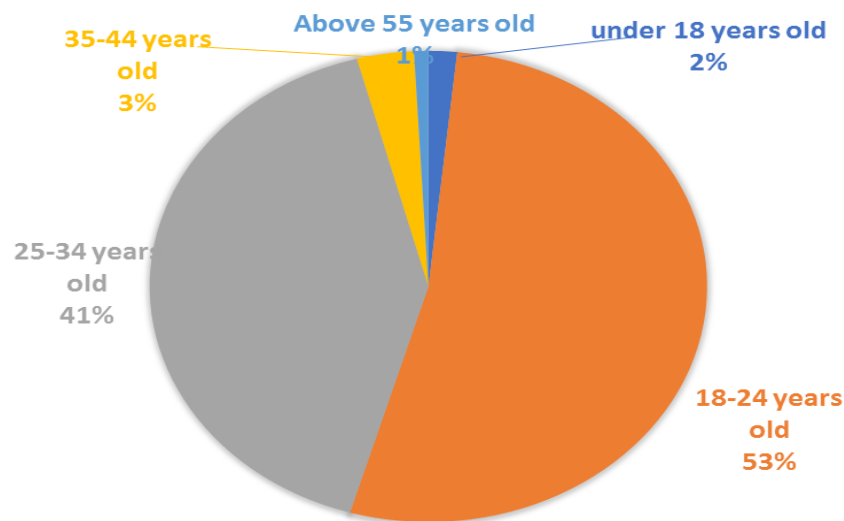


Source: Personal effort using Excel

Figure 4.1 above shows that the most used website is Jumia (83 responses) followed by Ouedkniss (37 respondents) since are the first websites installed in Algeria. On the other hand, Facebook Market place and AliExpress websites acquire more users (14 and 8 responses respectively) than other websites like E-shop and Batolis

4.1.2 Respondent's age

Figure 4.2: Respondent's Age



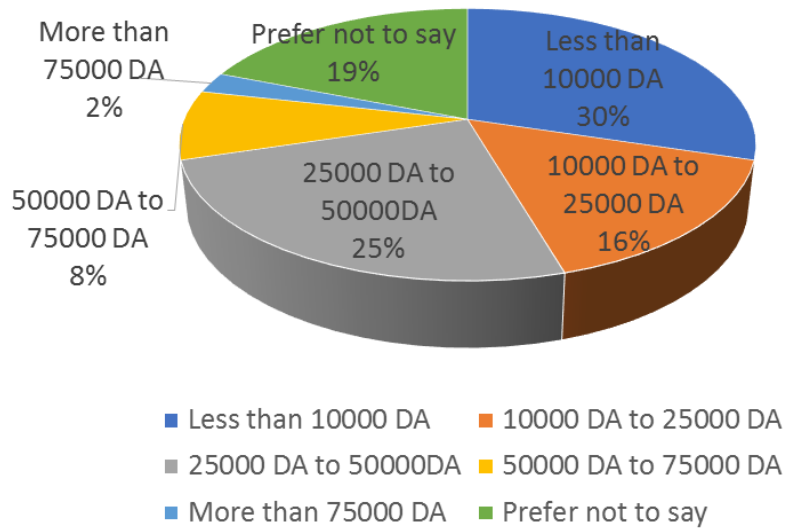
Source: Personal effort using Excel

Participants were asked to tick the age category appropriate to them. Fifty-three percent of respondents were in the 18-24 years old age category (64 responses). Forty-one percent were between 25 and 34 years old (50 participant). Four of the one hundred and twenty-one respondents (3%) were in the 35-44 years old interval, while only two respondents were below the age of 18 years and one participant was above 55years old.

4.1.3 Personal income

Regarding the personal income, 30% of respondents have an income less than 10,000 da. 16% of participant are included in the income group that ranges between 10,000 and 25,000 da. People who earn between 25,000 and 50,000 da represent 25% of the sample. The 50,000 to 75,000 da interval represents the personal income of 8% of participants. Finally, the more than 75,000 da category represents only a percentage of 2% of the population studied. It is also noted that 23 respondents (19%) prefer not to disclose such information, this can be due to some privacy concerns (see figure 4.3 below).

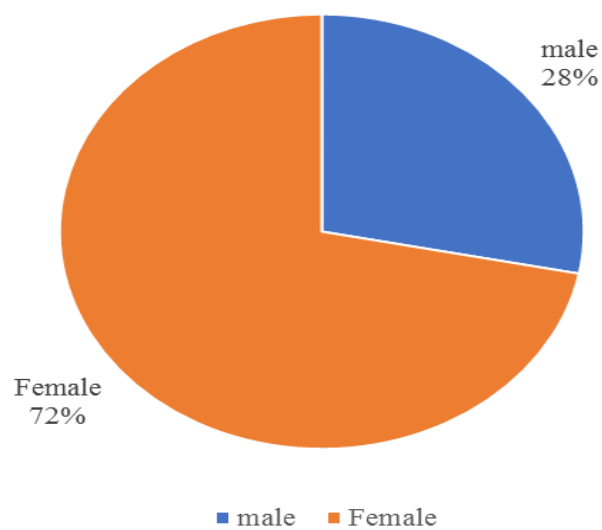
Figure 4.3: Personal Income ranges of respondents



Source: Personal effort using Excel

4.1.4 Gender

Figure 4.4: Respondent's Gender



Source: Personal effort using Excel

Respondents were asked to indicate their gender by placing a tick next to the relevant option provided (male or female). Of the 121 respondents 34 (28%) were male and 87 (72%) were female.

4.2 Hypotheses Tests

In order to test the research hypotheses, a multiple linear regression analysis is conducted. The predictors of each regression are the mean of each items on their scales. Online purchase frequency is considered as dependent variable to represent online purchase behavior, while the other dependent variable representing e-WOM behavior is the mean of the questions 35, 36, 37, 38 and 39. In what follows, the test of each hypothesis is described in detail.

4.2.1 Test of the first hypothesis

The first hypothesis claims that perception, perceived risk and trust are the most important psychological factors influencing online purchase behavior of Jumia customers. A multiple regression analysis is used to test this hypothesis.

4.2.1.1 Screening Data for Regression

There exist a set of preliminary assumptions that must be approved before conducting a multiple regression analysis. Thus, we will verify at first that the data collected are suitable for regression analysis.

4.2.1.1.1 Sample size

A trustworthy regression equation requires a sample size of fifteen respondents for each explanatory variable (predictor). Which means if we have four explanatory variables or predictors for example, the sample size will be 15 times 4. Therefore, sixty respondents would be enough to obtain a reliable equation.

In our case, the number of independent variables (predictors or explanatory variables) is three, which requires a minimum sample size of forty-five respondents. A sample size of 121 respondents was used, which means that the sample size allows the use of regression analysis.

4.2.1.1.2 Multicollinearity

Multicollinearity refers to the high correlation among independent variables ($\geq .90$). This condition can be examined through the correlation between independent variables.

According to the coefficient correlations table below, all the correlations between independent variables are less than 90%. Hence, we can infer that multicollinearity does not pose any problem.

Table 4.1: correlation matrix

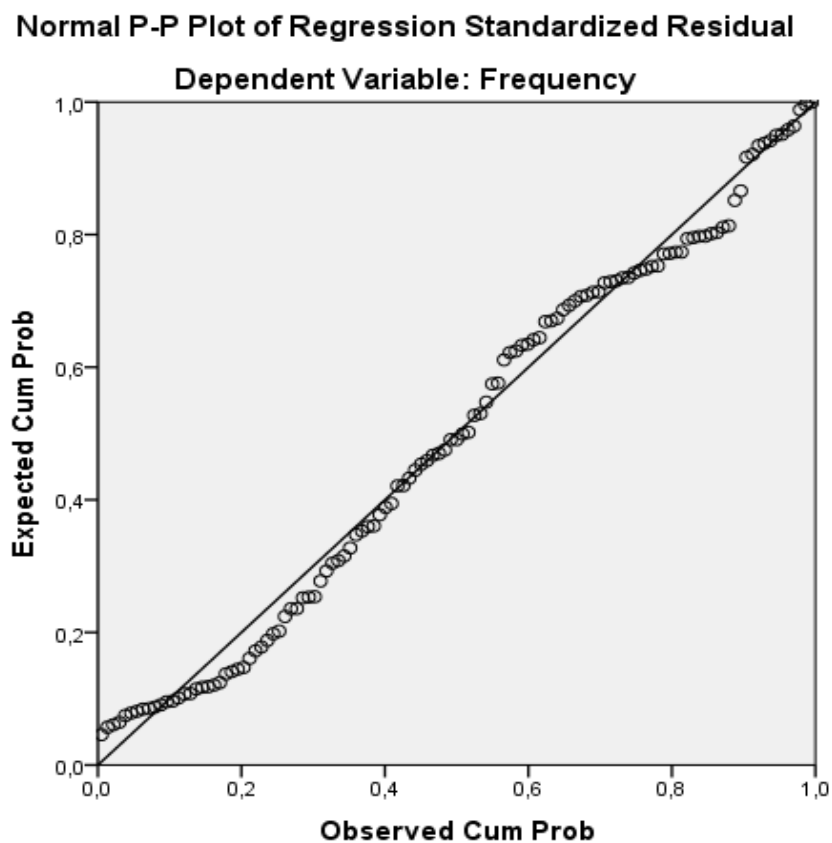
Coefficient Correlations^a

Model	Trust	Perceivedrisk	Perception
Trust	1,000	-,213	-,370
Perceivedrisk	-,213	1,000	-,362
Perception	-,370	-,362	1,000

Source: Personal effort using SPSS

4.2.1.1.3 Normality

Figure 4.5: Normal P.P Plot

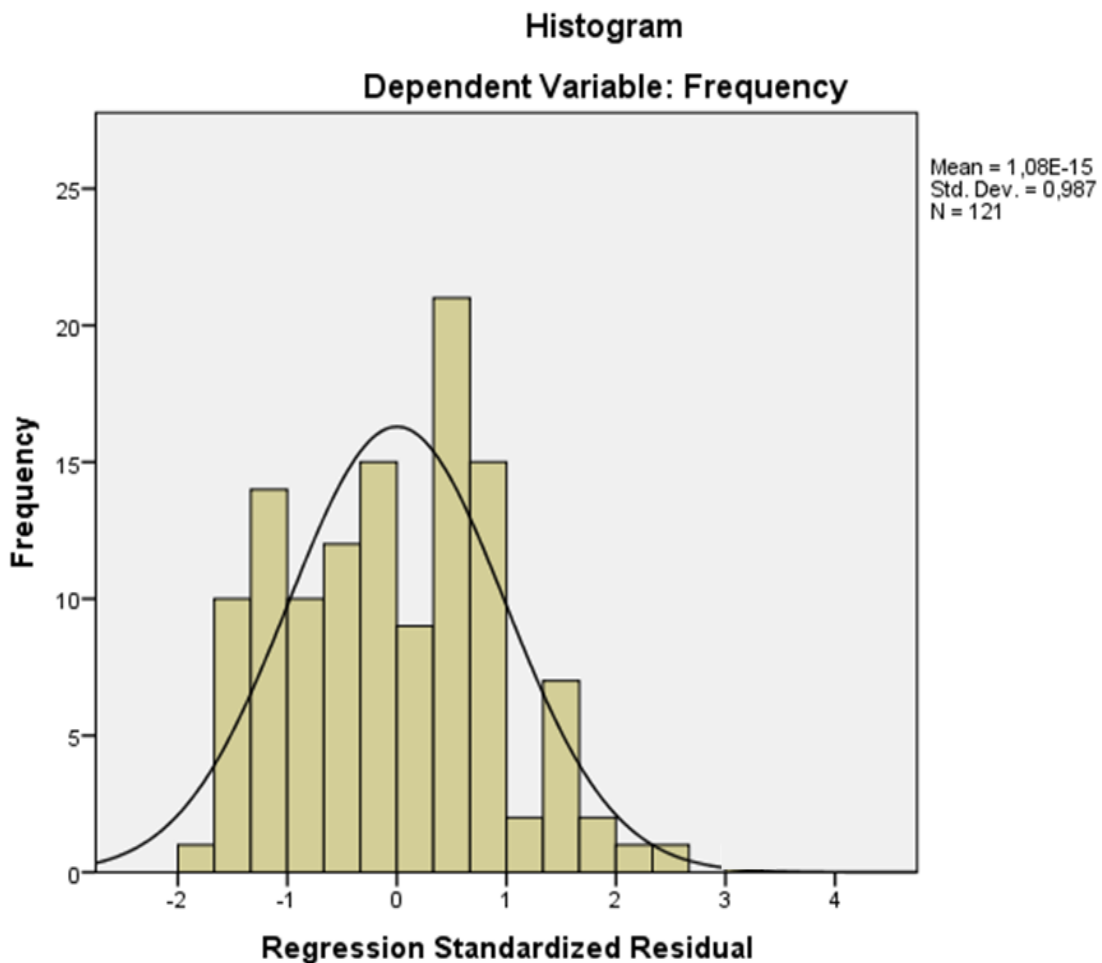


Source: Personal effort using SPSS

Figure 4.5 above shows that the residuals are aligned diagonally. Thus, the distribution of residuals follows the normal distribution.

Normality can also be tested through a second method which depends on the standardized residuals values, which must be neither above +3, nor below -3. Hence, regression standardized residual's histogram is used. In this case, figure 4.6 below clearly demonstrates that all standardized residuals are included in the interval [-3,3] which means that residuals are normally distributed.

Figure 4.6: Regression Standardized Residual's Histogram



Source: Personal effort using SPSS

4.2.1.1.4 Independence of residuals (Autocorrelation)

The absence of the autocorrelation indicates that respondents answered the questionnaire independently.

Durbin-Watson is the test used to identify the existence or the absence of autocorrelation. Durbin-Watson = 2.058 which is greater than the maximum critical value (DL1.613/ DU 1.736).

This leads to the acceptance of the alternative hypothesis H1 that stipulates the absence of autocorrelation.

Table 4.2: Model summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,288 ^a	,083	,059	1,084	,083	3,520	3	117	,017	2,058

a. Predictors: (Constant), trust, perceivedrisk, perception

b. Dependent Variable: Frequency

Source: Personal effort using SPSS

4.2.1.1.5 Outliers

The extreme values that can be identified through the Mahalanobis distance which is determined by the value of chi-square in which the number of independent variables is the degree of freedom and using 0.001 as level of significance. All of Mahalanobis values must be lower than the chi-square (number of independent variables, 0.001) value. Thus, more simply, outliers can be detected by comparing Mahalanobis values obtained by SPSS to the chi-square critical value.

In our case, all Mahalanobis distance values are lower than chi-square (3, 0.001) = 16.27, which means the absence of outliers.

4.2.1.2 Model Evaluation

Based on the model summary table (table 4.2) and the adjusted R square value, the model explains only 5.9% of the variation of the dependent variable. That is to say, the studied psychological factors (perception, perceived risk and trust) explains 5.9% of the variation of the online purchase frequency.

This low explanatory power of the model can be due to the existence of other psychological factors not included in our study and other social, environmental and cultural factors which can explain the variation of the dependent variable.

4.2.1.2.1 Model usefulness

Table 4.3: ANOVA

ANOVA^a

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	12,417	3	4,139	3,520	,017 ^b
	Residual	137,583	117	1,176		
	Total	150,000	120			

Source: Personal effort using SPSS

This model is statistically significant for alpha 5%, Fisher value is equal to 3.520 and greater than the critical value $F(3, 117, 5\%) = 2.680$.

Despite the fact that the model is statistically significant, Jumia Algeria cannot base its decisions on this model. That is due to the reason that the model usefulness requires a Fisher value greater four times than the critical value which is not the case in our study.

4.2.1.2.2 Parametric evaluation

Table 4.4: Parametric evaluation

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	3,530	,663		5,324	,000		
	Perception	-,144	,111	-,142	-1,298	,197	,660	1,515
	Perceived risk	,349	,148	,245	2,364	,020	,730	1,370
	Trust	-,255	,120	-,222	-2,130	,035	,725	1,380

Source: Personal effort using SPSS

The model is statistically significant but only trust and perceived risk are the independent variables that can individually contribute to the variation of the dependent variable.

The sign of the coefficients indicates the direction of the relationship. In our case, perceived risk is positively related to online purchase frequency, where an increase of perceived risk will result an augmentation of online purchase frequency (purchase behavior). We can also notice that when trust decreases, purchase frequency increases (trust is negatively related to online purchase frequency).

At first glance, the signs of the coefficients in our case seem illogical. However, most items used to measure perceived risk were positive (e.g. There are no risks by sharing my personal information concerning my transaction with Jumia website; I believe that advanced technology can certainly provide the desired security for my transactions online), which explains the positive relationship between perceived risk and online purchase frequency. From a similar perspective, the negative association between trust and online purchase frequency can be justified by the existence of negative items used to measure trust in our study (e.g. I have concerns about my data privacy while shopping online).

By comparing standardized coefficients obtained in the table 4.4, we conclude that perceived risk is the most important predictor of online purchase frequency and has the biggest impact with a standardized beta of 0.245, followed by trust with a standardized beta of -0.222. While perception does not contribute to the variation of online frequency purchase.

Given that e-commerce in Algeria is at its introduction, the significance of these 2 predictors (perceived risk and trust) seem logical. However, as e-commerce reaches maturity and shopping online become more habituated, it is expected that other variables will take place.

To summarize, online purchase frequency of Jumia customers depends on their perceived risk and trust. Consequently, the first hypothesis that claims that perception, perceived risk and trust are the most important psychological factors influencing online purchase behavior of Jumia customers, *is rejected*.

4.2.2 Test of the second hypothesis

The second hypothesis stipulates that the inclusion of environmental factors does not contribute to online purchase behavior of Jumia customers. Similarly to hypothesis 01 a multiple regression analysis is conducted to test this hypothesis.

4.2.2.1 Screening Data for Regression

As mentioned earlier, regression analysis cannot be implemented unless its preliminary conditions are approved.

4.2.2.1.1 Sample size

In this case, the number of independent variables is 7, which imposes a minimum sample size of 105 respondents (7*15). A sample size of 121 respondents is used, which means that the sample size is sufficient for the use of multiple regression analysis

4.2.2.1.2 Multicollinearity

Table 4.5: correlation matrix

Coefficient Correlations^a

Model		prodservau quality	perceivedri sk	referencegr oups	Trust	Perception	socialpre sence	websitequa lity
1	Correlatio ns	1,000	-,085	-,190	-,030	-,062	-,263	-,269
	prodservauqua lity							
	perceivedrisk	-,085	1,000	,010	-,243	-,362	,080	,088
	referencegroup s	-,190	,010	1,000	-,059	-,127	-,167	,099
	trust	-,030	-,243	-,059	1,000	-,234	-,115	-,302
	perception	-,062	-,362	-,127	-,234	1,000	,007	-,083
	socialpresence	-,263	,080	-,167	-,115	,007	1,000	-,407
	websitequality	-,269	,088	,099	-,302	-,083	-,407	1,000

Source: Personal effort using SPSS

According to the coefficient correlations table above, all the correlations between independent variables are less than 90%. Hence, we can observe the absence of multicollinearity.

4.2.2.1.3 Autocorrelation

Table 4.6: Model summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,310 ^a	,096	,040	1,095	,096	1,716	7	113	,112	1,947

a. Predictors: (Constant), prodservauquality, perceivedrisk, referencegroups, trust, perception, socialpresence, websitequality

b. Dependent Variable: Frequency

Source: Personal effort using SPSS

Independence of residuals is examined using Durbin-Watson (DW) test. Each DW value has two critical values: DL (LOWER) and DU (UPPER). If the calculated value is lower than DL residual are not independent, if calculated value is higher than DU residuals are independent, and if the calculated value from SPSS is between DU and DL then the result is inconclusive.

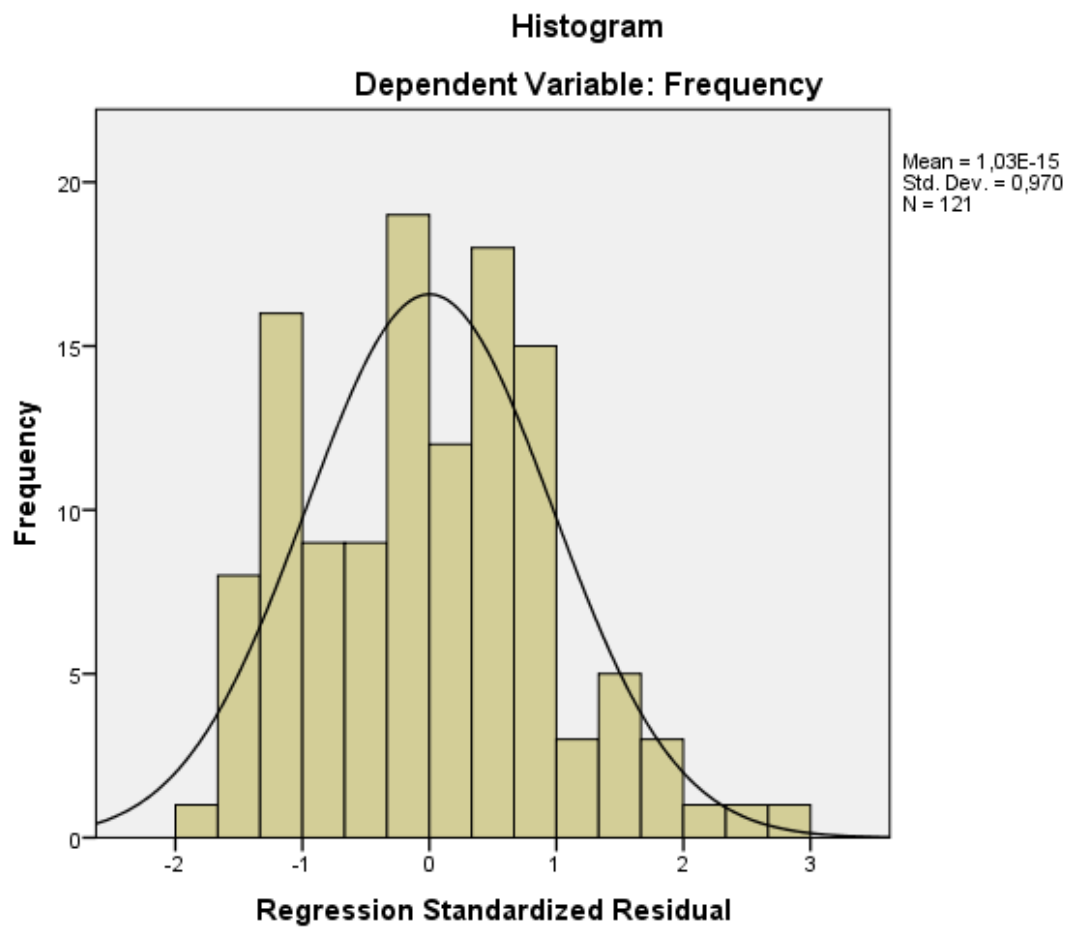
Based on the model summary table, Durbin-Watson value = 1.947 which is greater than the maximum critical value (DL1.528/ DU 1.826).

The alternative hypothesis H1 that stipulates the absence of autocorrelation is accepted and residuals are independent.

4.2.2.1.4 Normality

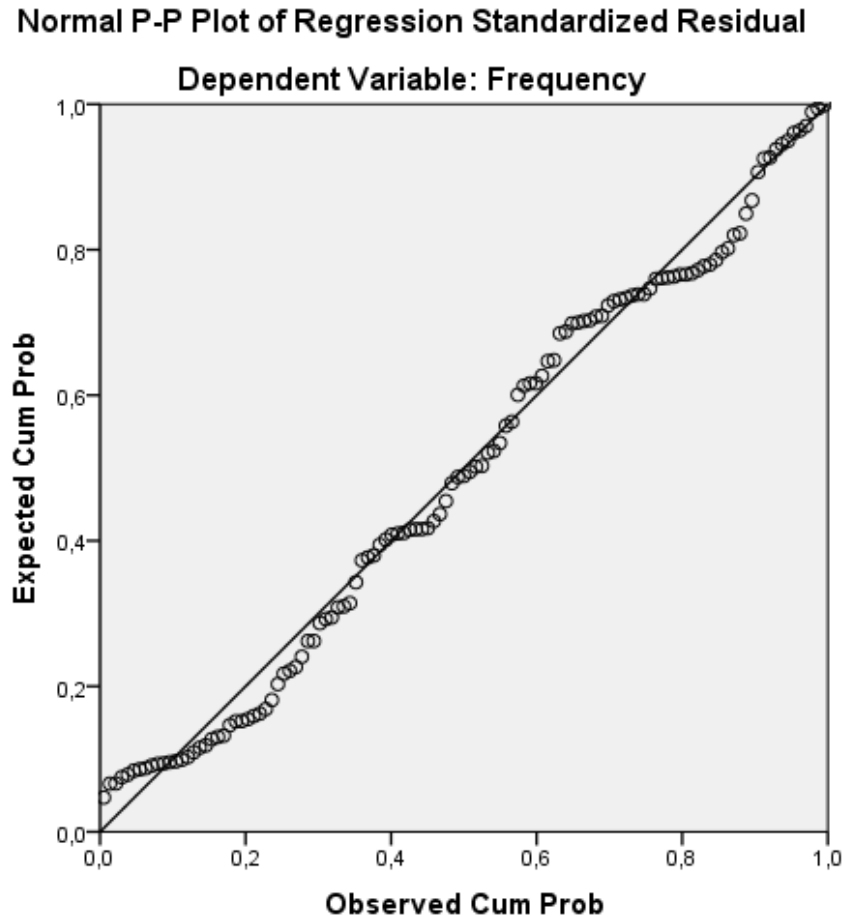
As stated earlier, normality depends on the standardized residuals values, which must be neither above +3, nor below -3. This can be verified using the histogram of regression standardized residual. It is shown on figure 4.7 bellow that normality condition is verified.

Figure 4.7: Regression Standardized Residual's Histogram



Source: Personal effort using SPSS

Normality can also be examined through normality plot. Figure 4.8 below indicates that the residuals are aligned diagonally. Thus, the distribution of residuals follows the normal distribution.

Figure 4.8: Normal P.P Plot

Source: Personal effort using SPSS

4.2.2.1.5 Outliers

To identify outliers with Mahalanobis distance, this latter, is calculated using SPSS. The obtained values are compared against chi square $(7, 0.001) = 24.32$, where every value below chi square critical value is considered as an outlier and must be excluded. Hence, no outliers are detected.

4.2.2.2 Model Evaluation

After analyzing the model summary table (*table 4.6*) and based on the Adjusted R square value, it is concluded that the model explains 4% (lower compared to the previous model 5.9) of the variation of the dependent variable, which means, that the environmental factors included do not contribute to the online purchase frequency variation.

4.2.2.2.1 Model usefulness

Table 4.7: ANOVA

Model	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	14,412	7	2,059	1,716	,112 ^b
Residual	135,588	113	1,200		
Total	150,000	120			

Source: Personal effort using SPSS

This model is statistically insignificant for an alpha 5%, Fisher value is equal to 1,716 and lower than $F(7, 113, 5\%) = 2.087$.

4.2.2.2.2 Parametric evaluation

Table 4.8: Parametric evaluation

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
	B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1 (Constant)	3,193	,757		4,216	,000					
perception	-,152	,115	-,150	-1,328	,187	-,131	-,124	-,119	,630	1,587
perceivedrisk	,375	,151	,263	2,480	,015	,088	,227	,222	,712	1,405
Trust	-,312	,138	-,271	-2,252	,026	-,193	-,207	-,201	,551	1,813
websitequality	,011	,116	,012	,094	,925	-,082	,009	,008	,469	2,134
socialpresence	,143	,127	,141	1,123	,264	-,014	,105	,100	,509	1,965
referencegroups	-,015	,085	-,017	-,174	,862	-,056	-,016	-,016	,825	1,212
prodservauquality	-,035	,093	-,045	-,379	,705	-,070	-,036	-,034	,574	1,743

a. Dependent Variable: Frequency

Source: Personal effort using SPSS

As expected, the environmental factors included in the model are not significant since the entire model is not significant as shown in the ANOVA table. All the values of the t test of the four factors representing independent variables are inferior to the criterion values. Therefore, the examined independent variables (website quality, social presence, reference groups and product/service quality) does not explain the dependent variable (frequency of online purchases). whereas, perceived risk and trust remain significant.

It is believed that Jumia customers have great concerns on delivery and payment systems. In such situation, external factors like reference groups and website social presence cannot have enough power to impact the Algerian e-consumer purchase behavior, in particular Jumia customers. Moreover, quality is product related, in this study no given product or category of products are studied in particular.

These findings can also be justified by the fact that this research is studying a whole organization and not a specific product or category of products.

To conclude, four environmental factors, namely; website quality, reference groups, social presence and product/service quality were included to the previous model as independent variables, while the dependent variable remains represented by online purchase frequency to test hypothesis 02. It is found that no environmental variable exists in the model which can significantly explain the variation in frequency of online purchase. Accordingly, the second hypothesis which stipulates that the inclusion of environmental factors does not contribute to the online purchase behavior of Jumia customers is *accepted*.

4.2.3 Test of the third hypothesis

The third hypothesis states that reference groups and social presence are the most significant external predictors of e-WOM behavior of Jumia customers. A multiple regression analysis test is conducted to test the hypothesis.

4.2.3.1 Screening Data for Regression

In this part, the assumptions of multiple regression analysis are verified for the model which is appropriate to test the hypothesis 03.

4.2.3.1.1 Sample size

The test of this hypothesis requires a number of 4 independent variables, which imposes a minimum sample size of 60 respondents ($4*15$). A sample size of 121 respondents is used, which means that the sample size is acceptable.

4.2.3.1.2 Multicollinearity

According to the coefficient correlations table below, all the correlations between independent variables are lower than 90%. Therefore, the assumption regarding multicollinearity is approved.

Table 4.9: correlation matrix

Coefficient Correlations^a

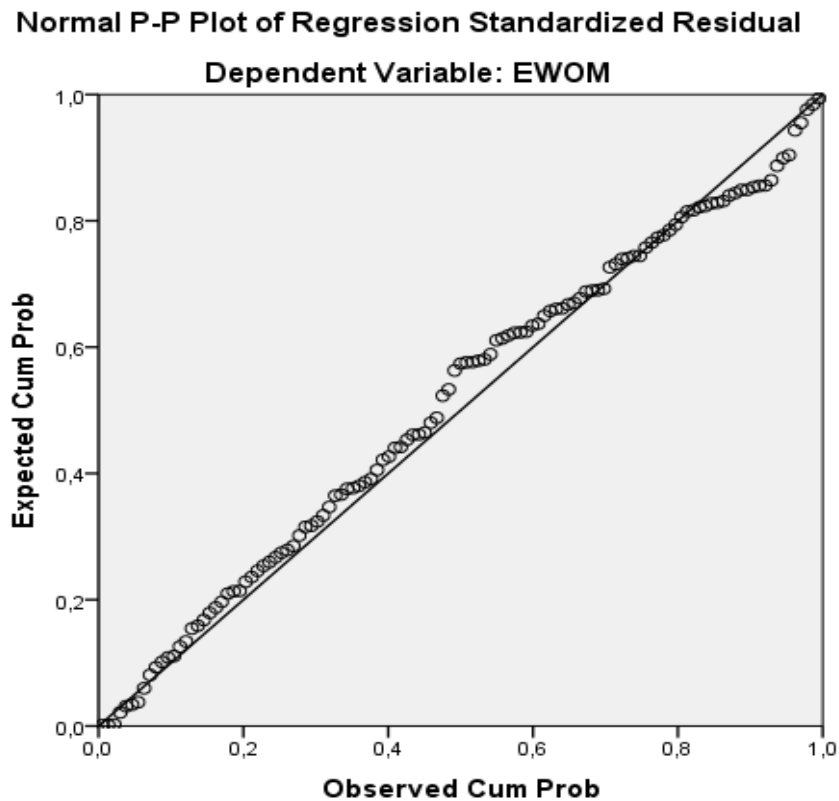
Model			Prodservauqualit y	referencegroups	websitequality	socialpresence
1	Correlations	Prodservauquality	1,000	-,218	-,322	-,266
		Referencegroups	-,218	1,000	,058	-,177
		Websitequality	-,322	,058	1,000	-,475
		Socialpresence	-,266	-,177	-,475	1,000

a. Dependent Variable: EWOM

Source: Personal effort using SPSS

4.2.3.1.3 Normality

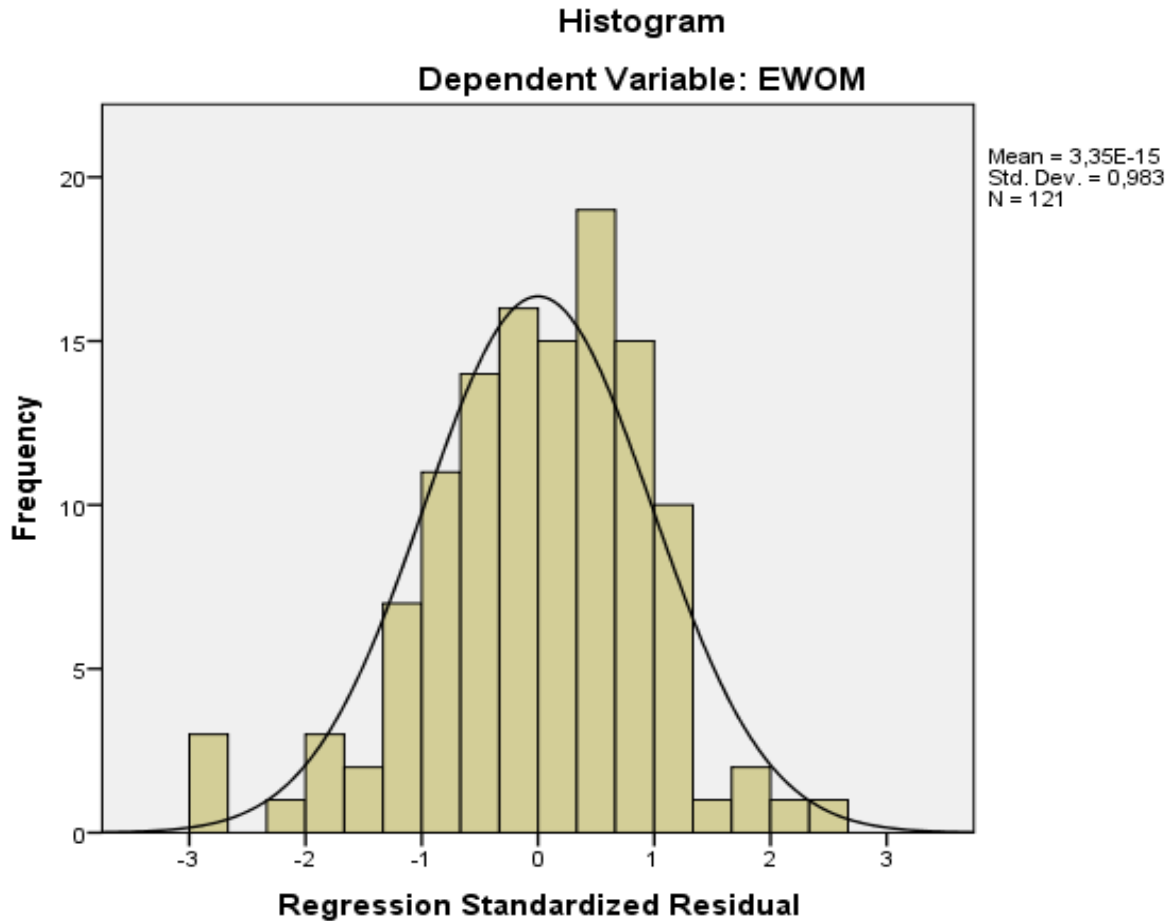
Figure 4.9 below shows that the residuals are aligned diagonally. Consequently, the underlying residuals are normally distributed.

Figure 4.9: Normal P.P Plot

Source: Personal effort using SPSS

The histogram of regression standardized residual is a second efficient way to test normality, according to the figure 4.10 below in which all standardized residual values are between -3 and +3, the residuals of regression follow the normal distribution.

Figure 4.10: Regression Standardized Residual's Histogram



Source: Personal effort using SPSS

4.2.3.1.4 Outliers

Outliers are present when the condition: Mahalanobis distance < chi square (number of independent variables. 0.001), is not valid.

According to chi square test table, chi square (4, 0.001) = 18.47 which is greater than all Mahalanobis distance values in this model. Consequently, the assumption concerning outliers is verified.

4.2.3.1.5 Autocorrelation

Based on the model summary table below (table 4.10), Durbin-Watson value = 2.385 which is greater than the maximum critical value (DL 1.592/ DU 1.758).

The alternative hypothesis H1 that stipulates the absence of autocorrelation is accepted and residuals are independent.

Table 4.10: Model summary

Model Summary^b

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	,668 ^a	,447	,427	,83159	,447	23,399	4	116	,000	2,385

a. Predictors: (Constant), prodservauquality, referencegroups, websitequality, socialpresence

b. Dependent Variable: EWOM

Source: Personal effort using SPSS

4.2.3.2 Model Evaluation

According to the previous table (model summary table) and based on the Adjusted R square value, the model explains 42.7% of the variation of the dependent variable, which means, website quality, social presence, reference groups and product/service explains 42.7% of the variation in e-WOM behavior of Jumia customers.

4.2.3.2.1 Model usefulness

Table 4.11: ANOVA

ANOVA^a

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	64,726	4	16,181	23,399	,000 ^b
	Residual	80,218	116	,692		
	Total	144,944	120			

a. Dependent Variable : EWOM

b. Predictors: (Constant), prodservauquality, referencegroups, websitequality, socialpresence

Source: Personal effort using SPSS

This model is highly significant for alpha 5%, Fisher value is equal to 23,399 and greater than the critical value $F(4, 116, 5\%) = 2.447$.

Fisher value is greater nine times than the critical value which allows Jumia Algeria to base its decisions on this model.

4.2.3.2.2 Parametric evaluation

Table 4.12: Parametric evaluation

Model		Coefficients ^a									
		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Correlations			Collinearity Statistics	
		B	Std. Error	Beta			Zero-order	Partial	Part	Tolerance	VIF
1	(Constant)	,749	,408		1,834	,069					
	Websitequality	,120	,083	,138	1,456	,148	,492	,134	,101	,532	1,878
	Socialpresence	,317	,096	,317	3,305	,001	,583	,293	,228	,517	1,933
	referencegroups	,196	,063	,232	3,093	,002	,429	,276	,214	,850	1,176
	prodservauquality	,142	,070	,182	2,027	,045	,517	,185	,140	,589	1,698

a. Dependent Variable: EWOM

Source: Personal effort using SPSS

The model is statistically significant. Based on the analysis of coefficient table above, reference groups, social presence and product/service quality are the independent variables that can individually contribute to the variation of the dependent variable (e-WOM behavior). While website quality does not contribute to the variation in e-WOM behavior.

The sign of the coefficients indicates the direction of the relationship. In our case, reference groups, social presence and product/service quality are positively related to online purchase frequency, where any increase of one of these variables causes an increase of e-WOM behavior.

By comparing standardized coefficients obtained in the table 4.12, it is concluded that the website social presence is the most important predictor of e-WOM and has the biggest

impact with a standardized beta of 0.001, followed by reference groups with a standardized beta of 0.002. service/product quality comes at last with beta coefficient of 0.045.

Given the fact that e-WOM is an informal communication through the internet and mainly through social networking sites which are characterized by their sense of friendliness where a huge number of users are able to exchange ideas and opinions, and interact with each other in a continuous manner, the high significance level of reference groups (internet influencers and contacts on social networks) and website social presence (which refers to the sense of friendliness and human touch present in the website) is expected.

To summarize, in accordance with previous studies and findings exposed in the literature review, e-WOM behavior of Jumia customers depends mainly on the impact exerted by reference groups existing in their environment, the website social presence, and the quality of services and products offered by the website. Thus, the third hypothesis which states that reference groups and social presence are the most significant external predictors of e-WOM behavior of Jumia customers is *accepted*. With the existence of a third significant predictor which is service/product quality.

4.3 Summary of Findings

This study attempts to better understand online consumer behavior and analyze word of mouth behavior on the internet in order to understand which psychological and environmental variables have the most impact on online purchase behavior and e-WOM. Thus, the research measures the frequency of online purchase of Jumia costumers in addition to their electronic Word-of mouth behavior.

A self-administered survey is designed and launched on the internet to collect empirical data, and to examine the proposed hypotheses. The questionnaire is composed of three sections containing several types of questions chosen according to the type of information required.

In order to quantify the research's variables, online purchase behavior is represented by the frequency of online purchases measured using a seven-point Likert scale.

The ultimate goal of this chapter and of the entire research is to confirm or reject the initial study hypotheses. To achieve that, a multiple regression analysis is conducted. Multiple regression has enabled a better definition of the existence, the nature and the degree of associations between dependent and independent metric variables.

At the end of this research, the influence of environmental and psychological factors on the frequency of buying online, and on the e-WOM behavior is verified. It is shown that online

consumer's buying behavior is influenced by two key internal factors; trust and perceived risk, and does not depend on any external factor like website quality or website social presence. In fact, the perceived risk and trust has the most powerful impact on buying behavior of Jumia customers. This can be due to the Algerian consumer's mistrust mentality, where the quality of a given website, its sense of friendliness, or a recommendation from a particular influencer can never be enough to motivate individuals to make purchase decisions.

Electronic word of mouth behavior on the other hand, is influenced by three crucial external factors, namely: reference groups, website social presence and product/service quality. E-WOM behavior is mainly performed on social networking sites where millions of individuals are brought together with the aim of building a strong form of interpersonal bond between them called friendship, and make them able to share their daily lives details and exchange ideas and opinions. With this in mind, the significant contribution of these three predictors to e-WOM behavior seem logical and fair.

These results offer for e-commerce decision makers the opportunity to reflect on strategies to improve trust and reduce consumers' perceived risk while shopping online. This can be reached by providing a particular level of certitude in the online transaction environment.

Conclusion

In this chapter, data analysis methods, study results and a discussion of the findings have been presented. Some findings from this study have been found to be consistent with the findings of several related studies on online consumer behavior, while other findings were in contrast with them. This is due to the fact that every external or internal variable is affected by the context in which the study is implemented.

The study aimed to test three hypotheses and the results were the following:

- **H1:** Perception, perceived risk, and trust are the most important psychological factors influencing online purchase behavior of Jumia customers. **Rejected.**
- **H2:** The inclusion of environmental factors does not contribute to the online purchase behavior. **Accepted.**
- **H3:** Reference groups and social presence are the most significant predictors of e-WOM behavior of Jumia customers. **Accepted.**

In order to test these hypotheses, a questionnaire was designed and administrated online to different categories of respondents chosen in a none probabilistic way using the judgmental sampling technique.

Chapter V
Conclusion

In an Algerian context where electronic commerce is still struggling to develop, it seems very important to highlight the factors that lead the Algerian consumer to adopt this buying process and to recommend it for others.

5.1 Overview of the Study

The main purpose of the study is to investigate the psychological and environmental factors influencing online consumer behavior. The basic research question is formulated as follows: “What are the psychological and environmental factors that influence the behavior of online consumers and to what extent?”

Attempting to answer the main research question, three sub-questions are posed:

- What are and to what extent do salient psychological factors influence online purchase behavior?
- Does the inclusion of environmental factors increase the explanatory power of estimation equation?
- What are the most important external predictors of e-WOM behavior?

This research is conducted in order to:

- Get deeper understanding into the online consumer behavior.
- Determine the salient factors affecting the online purchase behavior.
- Identify what leads online consumers to generate a positive e-WOM.

The present research is divided into 5 major chapters, theoretical and empirical in nature:

Chapter one entitled ‘Introduction’, outlines the background to the research problem, by stating the problem, specifying the research objectives, and laying out the research approach. The proposed methods and structure of the research are described.

Chapter two entitled ‘Literature Review’, provides a review of the research literature relating to the online consumer behavior and the different psychological (internal) and environmental (external) factors influencing it. This review is undertaken in order to establish a theoretical understanding of and a basis for developing the research methodology used.

Chapter three entitled ‘Research Methods’, starts by giving a brief presentation of Jumia Algeria (the host company). Next, it discusses and examines the details of the research design, the questionnaire and sampling design, and the data collection process. At the end of this chapter, a preliminary plan for data analysis is provided.

Chapter four which is entitled ‘Research Findings’, deals with descriptive data analysis, statistical analyses, and the interpretation of the results. That is to say, data analysis methods, study results and a discussion of the findings are presented.

Chapter five entitled ‘Conclusion’, summarizes the research and the conclusions to be drawn. Moreover, this chapter includes recommendations and study limitations. The conclusion contains also suggestions for further research.

5.2 Major Finding

To carry out this study, a quantitative approach is used, in which, a judgmental sampling method (non-probabilistic sampling technique) is employed. The questionnaire was sent via Facebook, e-mail and WhatsApp and have been answered by 253 participants from which only 121 were appropriate. After all, the test of the research’s initial hypotheses reveals the following results:

The first hypothesis that stipulates that perception, perceived risk, and trust are the most important psychological factors influencing online purchase behavior of Jumia customers **is rejected**, because the multiple regression showed that only trust and perceived risk have a significant impact on online purchase behavior.

The second hypothesis in which it is stated that the inclusion of environmental factors does not contribute to the online purchase behavior **is accepted**. Based on the results obtained after conducting a multiple regression analysis of the model, it is found that there is no environmental (external) variable in the model that can significantly explain the variation in purchase behavior of Jumia customers on the internet.

The third hypothesis which stipulates that reference groups and social presence are the most significant external predictors of e-WOM behavior of Jumia customers **is accepted**. This result is obtained using a multiple regression analysis, in which, reference groups and website social presence are judged pivotal in determining the e-WOM of Jumia customers. regression analysis also casts light on one of the most significant external predictors of e-WOM which is product/service quality.

At this stage, the sub-questions of this research can be answered as the followings:

- Perceived risk and trust have the greatest level of significance as psychological factors exerting an impact on online purchase behavior of Jumia customers.
- The inclusion of environmental factors does not contribute to the online purchase behavior of Jumia customers. In other word, there is no environmental factor that can individually influence the online buying behavior of Jumia customers.
- E-WOM behavior of Jumia customers depends mainly on the impact exerted by the reference groups existing in their environment, the website social presence, and the quality of services and products offered by the website.

5.3 Recommendations

the study of consumer behavior, can provide professionals with decision-making elements to develop and implement more suitable strategies

- The research shows that consumers perceive online shopping as risky, the thing which negatively impact the development of e-commerce in Algeria. This is a result which suggests that at the level of e-commerce companies and authorities, it is necessary to put in place actions aimed at reassuring the Algerian consumer and improve their attitude towards online shopping.

- Electronic payment represents one of the most important obstacles to the development of electronic commerce in Algeria. To this day, online sales companies still use the payment in cash at the time of delivery. For these companies it is a risky and expensive solution due to wrong orders. The particular context of covid-19 pandemic, may be adequate to facilitate access to bank cards and motivate consumers to use them.

- Studying risk reduction mechanisms could help sellers alleviate some of the worries about e-commerce.

- Establishing trust between online vendors and online consumers.

- The delivery time is one of the determinants of service quality. This later, influences positively the e-WOM of Jumia customers. Consequently, a fast delivery system is required.

- Reference groups including influencers, are key elements exerting an impact on e-WOM behavior of Jumia customers. from this perspective, Jumia Algeria should have more interest in collaborations with influencers, especially, the most famous ones.

5.4 Study Limitations

- This study sampled only a very small part of Algeria. Indeed, it sampled only a very small part of e-consumers, in particular, a small part of Jumia customers.
- The sampling method adopted in this research cannot be used to generalize the findings of this study. Hence, a simple random sampling would be more appropriate.
- The added value of this research could be augmented if the quantitative study has not focused only on consumers who have already made online purchases on Jumia platform.
- 53% of the respondents are included in the 18-24 years old age category, this is due to the sampling method chosen.
- This research does not rely on the study of a specific product or service, it studies a whole organization instead.
- The behavior of e-consumers is represented in this study by only online buying behavior and e-WOM behavior, while behavior in fact represents every interaction possible.

5.5 Future Research Directions

Further studies obviously need to be much more broadly based; the better to allow generalization, some suggestions of themes that can be complementary to this study, and that may be of interest for future researchers. For instance:

- Do personality traits and prior beliefs affect the electronic word of mouth behavior.
- The definition of crucial elements that cause evolution of declared intentions and perceptions, using a longitudinal study.
- Exploring factors influencing the perceived reliability of comments and reviews on a website or mobile application.

Chapter VI
References

- Abdu, G. (2013). Analysis of Consumer Behavior Affecting Consumer Willingness to Buy in 7-Eleven Convenience Store. *Universal Journal of Management*, 1(2), 69-75.
<http://www.hrpub.org>
- Abdullah, D., Hambali, M. E. R. M., Kamal, S. B. M., Din, N., & Lahap, J. (2016). Factors influencing visual electronic Word of Mouth (e-WOM) on restaurant experience. *Heritage, Culture and Society* (1st ed., pp. 519–523). CRC Press. <https://doi.org/10.1201/9781315386980-92>
- Abidin, C. (2016). Aren't these just young, rich women doing vain things online? influencer selfies as subversive frivolity. *Social Media and Society*, 2(2), 1-17.
- Adnan, H. (2014). An Analysis of the Factors Affecting Online Purchasing Behavior of Pakistani Consumers. *International Journal of Marketing Studies*, 6(5), p133.
<https://doi.org/10.5539/ijms.v6n5p133>
- Akyüz, A. (2013). Determinant Factors Influencing eWOM. *Mediterranean Journal of Social Sciences*, 4(11). <https://doi.org/10.5901/mjss.2013.v4n11p159>
- American Marketing Association, *Consumer Behavior Archives*, accessed 1 may 2021
<<http://www.ama.org>>.
- Anderson, E. (1998). Customer satisfaction and word of mouth. *Journal of Service Research*, 5-17.
- Baubonienė, Ž., & Gulevičiūtė, G. (2015). E-COMMERCE FACTORS INFLUENCING CONSUMERS 'ONLINE SHOPPING DECISION. *Social Technologies*, 5(1),74–81.
- Beauchamp, M. B., & Ponder, N. (2010). *Perceptions of Retail Convenience for In-Store And Online Shoppers*. 17.

- Bhattacharjee, J. and Chetty, P. (2019). *Internal and external factors influencing online purchase decision*. [online] Project Guru. Available at <https://www.projectguru.in/online-purchase-decision/>
- Boukerch, Y. (2020.). *Perception: A Neural Account*. Reforme Economiques et Integration En Economie Mondiale, Laboratoire des Reformes, 14(3), 395-404.
- Buck, R. W. (2000). *The Epistemology of Reason and Affect*. In: J. C. Borod, ed. *The Neuropsychology of Emotion*. New York: Oxford University Press, pp. 31-55
- Cacioppo, John T. and Richard E. Petty. (1982). "The Need for Cognition," *Journal of Personality and Social Psychology*, 42(January), 116–131.
- Casaló, L. V., Flavián, C., & Guinalú, M. (2008). The role of satisfaction and website usability in developing customer loyalty and positive word-of-mouth in the e-banking services. *International Journal of Bank Marketing*, 26(6), 399–417. <https://doi.org/10.1108/02652320810902433>
- Cetină, I., Munthiu, M.-C., & Rădulescu, V. (2012). Psychological and Social Factors that Influence Online Consumer Behavior. *Procedia - Social and Behavioral Sciences*, 62, 184–188. <https://doi.org/10.1016/j.sbspro.2012.09.029>
- Chan, G., Cheung, C., Kwong, T., Limayem, M., & Zhu, L. (2003). *Online Consumer Behavior: A Review and Agenda for Future Research*. *Computers in Human Behavior*, 36, 168–178
- Chaniotakis, I. E., & Lymperopoulos, C. (2009). Service quality effect on satisfaction and word of mouth in the health care industry. *Managing Service Quality: An International Journal*, 19(2), 229–242. <https://doi.org/10.1108/09604520910943206>
- Constantinides, E. (2004). Influencing the online consumer's behavior: The Web experience. *Internet Research*, 14(2), 111–126. <https://doi.org/10.1108/10662240410530835>

- Creswell, J. W. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches* (3rd ed.). Thousand Oaks, CA.
- Cummins, S., W. Peltier, J., A. Schibrowsky, J., & Nill, A. (2014). Consumer behavior in the online context. *Journal of Research in Interactive Marketing*, 8(3), 169–202. <https://doi.org/10.1108/JRIM-04-2013-0019>
- Dachyar, M., & Banjarnahor, L. (2017). Factors influencing purchase intention towards consumer-to-consumer e-commerce. *Intangible Capital*, 13(5), 948. <https://doi.org/10.3926/ic.1119>
- Daniela Coppola (2020), accessed 21 May 2021, <<https://www.statista.com/statistics/251666/number-of-digital-buyers-worldwide> >
- Darley, W. K., Blankson, C., & Luethge, D. J. (2010). Toward an integrated framework for online consumer behavior and decision-making process: A review: Online Consumer Behavior. *Psychology & Marketing*, 27(2), 94–116. <https://doi.org/10.1002/mar.20322>
- Das, S., Echambadi, R., McCARDLE, M., & Lockett, M. (2003.). *The Effect of Interpersonal Trust, Need for Cognition, and Social Loneliness on Shopping, Information Seeking and Surfing on the Web*. *Marketing Letters*, 14(3), 185–202
- Dash, S., & Saji, K. B. (2008). The Role of Consumer Self-Efficacy and Website Social-Presence in Customers' Adoption of B2C Online Shopping: An Empirical Study in the Indian Context. *Journal of International Consumer Marketing*, 20(2), 33–48. https://doi.org/10.1300/J046v20n02_04
- De Valck, K., Wierenga, B., & Van Bruggen, G. (2009). Virtual communities: A marketing perspective. *Decision Support Systems*, 185–203

- Enke, N. & Borchers, N. (2019). Social Media Influencers in Strategic Communication: A Conceptual Framework for Strategic Social Media Influencer Communication. *International Journal of Strategic Communication*, 13(4), 261-277. doi: 10.1080/1553118X.2019.1620234
- Goldsmith, R., & Clark, R. (2008). An analysis of factors affecting fashion opinion leadership and fashion opinion seeking. *Journal of Fashion Marketing and Management*, 308 – 322.
- Gray, J., & Rumpe, B. (2015). Models for digitalization. *Software & Systems Modeling*, 14(4), 1319–1320. <https://doi.org/10.1007/s10270-015-0494-9>
- Greenwald, A., and Leavitt, C. (1984). Audience involvement in advertising: Four levels in *Journal of Consumer Research*, 11 (June), 581-592.
- Harrison-Walker, L. (2001). The Measurement of Word-of-Mouth Communication and an Investigation of Service Quality and Customer Commitment as Potential Antecedents. *Journal of Service Research*, 4 (1), 60-75.
- Hawkins, D. I., & Mothersbaugh, D. L. (2010). *Consumer behavior: Building marketing strategy* (11th ed). McGraw-Hill Irwin.
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: What motivates consumers to articulate themselves on the Internet? *Journal of Interactive Marketing*, 18(1), 38–52. <https://doi.org/10.1002/dir.10073>
- Hansen, T. (2008). Consumer values, the theory of planned behaviour and online grocery shopping. *International Journal of Consumer Studies*, 32(2), 128–137. <https://doi.org/10.1111/j.1470-6431.2007.00655>.
- Jacoby, J. (1976). Consumer Psychology: An Octennium. *Annual Review of Psychology*, 27(1), 331–358. <https://doi.org/10.1146/annurev.ps.27.020176.001555>

- Jiang, L. (Alice), Yang, Z., & Jun, M. (2013). Measuring consumer perceptions of online shopping convenience. *Journal of Service Management*, 24(2), 191–214.
<https://doi.org/10.1108/09564231311323962>
- Jiang, L., Jun, M., & Yang, Z. (2016). Customer-perceived value and loyalty: How do key service quality dimensions matter in the context of B2C e-commerce? *Service Business*, 10(2), 301–317. <https://doi.org/10.1007/s11628-015-0269-y>
- Kim, D.J., Ferrin, D.L., & Rao, H.R. (2008). A trust-based consumer decision-making model in electronic commerce: The role of trust, perceived risk, and their antecedents. *Decision Support Systems*, 44(2), 544-564
- Lee, G. G., & Lin, H. F. (2005). Customer perceptions of e-service quality in online shopping. *International Journal of Retail & Distribution Management*, 33(2), 161-176. Retrieved from www.emeraldinsight.com/0959-0552.htm
- Li, H., Liu, Y., & Suomi, R. (2013). Exploring the factors motivating e-service users' WOM behaviour. *International Journal of Services Technology and Management*, 19(4/5/6), 187.
<https://doi.org/10.1504/IJSTM.2013.055633>
- Lin, H-C., Bruning, P. & Swarna, H. (2018). Using online opinion leaders to promote the hedonic and utilitarian value of products and services. *Business Horizons*, 61, 431-442.
- Lin, W.-B. (2008). Factors Influencing Online and Post-purchase Behavior and Construction of Relevant Models. *Journal of International Consumer Marketing*, 20(3–4), 23–38.
<https://doi.org/10.1080/08961530802129151>
- Malhotra, N. K. (2010). *Marketing research: an applied orientation* (6th ed.). Boston, Pearson.
- Malik G., Guptha A. (2013). An Empirical Study on Behavioral Intent of Consumers in Online Shopping. *Business Perspectives and Research*, July-December, p. 13-28

- Martinez-Ruiz, M. P., & Moser, K. S. (2019). Studying Consumer Behavior in an Online Context: The Impact of the Evolution of the World Wide Web for New Avenues in Research. *Frontiers in Psychology*, 10:2731. doi: 10.3389/fpsyg.2019.02731
- McWilliam, G. (2000). Building Stronger Brands Through Online Communities. *Sloan Management Review*, 41 (Spring), 43–54.
- Michael R. Solomon, *Consumer Behavior: Buying, Having and Being* (Pearson Australia, 2013) third edition.
- Oliver, R.L. (1999). Whence Customer Loyalty? *Journal of Marketing*, 63, 33– 44.
- Park, C., & Kim, Y. (2003). Identifying key factors affecting consumer purchase behavior in an online shopping context. *International Journal of Retail & Distribution Management*, 31(1), 16–29. <https://doi.org/10.1108/09590550310457818>
- Pavlou, A. P. (2003). Consumer Acceptance of Electronic Commerce: Integrating Trust and Risk with the. *International Journal of Electronic Commerce*, 101-134.
- Peter, J. P., & Olson, J. C. (2010). *Consumer behavior & marketing strategy* (9th ed). McGraw-Hill Irwin.
- Piaget, J. (1971). Piaget's theory. In P. Mussen (Ed.), *Handbook of Child Development*. New York: Wiley.
- Pomirleanu, N., Schibrowsky, J. A., Peltier, J., & Nill, A. (2013). A review of internet marketing research over the past 20 years and future research direction. *Journal of Research in Interactive Marketing*, 7(3), 166–181. <https://doi.org/10.1108/JRIM-01-2013-0006>
- Punj, G. (2012). Consumer Decision Making on the Web: A Theoretical Analysis and Research Guidelines: CONSUMER DECISION MAKING ON THE WEB. *Psychology & Marketing*, 29(10), 791–803. <https://doi.org/10.1002/mar.20564>

- Rahman, M. S., & Mannan, M. (2018). Consumer online purchase behavior of local fashion clothing brands: Information adoption, e-WOM, online brand familiarity and online brand experience. *Journal of Fashion Marketing and Management: An International Journal*, 22(3), 404–419. <https://doi.org/10.1108/JFMM-11-2017-0118>
- Rezvani, M. & Safahani, N. (2016). The Effect of Site Quality on Electronic Word of Mouth Marketing Through Mediating Variable of Customer Satisfaction (Case Study: Tiwall Culture and Art Social Network Online Shop). *International Business Management*, 10: 592-598.
- Sam, C.-Y., & Sharma, C. (2015). *An Exploration into the Factors Driving Consumers in Singapore towards or away from the Adoption of Online Shopping*. 7(1), 14.
- Sekaran, U., & Bougie, R. (2009). *Research Methods for Business* (5th ed.). Chichester, UK.
- Severt, E. (2002): *The Customer's Path to loyalty: A Partial Test of the Relationships of Prior Experience, Justice, and Customer Satisfaction*. Doctoral Thesis, Faculty of the Virginia Polytechnic Institute and State University (EEUU).
- Shareef, M. A., Dwivedi, Y. K., & Kumar, V. (2016). Online Consumer Behavior and Marketing. In M. A. Shareef, Y. K. Dwivedi, & V. Kumar, *Mobile Marketing Channel* (pp. 1–24). Springer International Publishing. <https://doi.org/10.1007/978-3-319-31287-31>
- Schiffman, L.G. & Kanuk, L.L. (2009). *Consumer behavior*. New Jersey: Pearson Prentice Hall, (Chapter 5, 10).
- Sundaram, D.S., Mitra, K., & Webster, C. (1998). Word-of-Mouth Communications: A Motivational Analysis. *Advances in Consumer Research*, 25, 527–531.
- Vernette, E. (2002). Le rôle et le profil des leaders d'opinion pour la diffusion de l'internet. *Décisions Marketing*, 37-51
- Westfall, L. (2009). Sampling methods. *The Certified Quality Engineer Handbook*

Williamson, D. A. (2019). Global influencer marketing 2019: What to know about spending, stories, fraud and microinfluencers. Retrieved from Emarketer database.

<https://www.emarketer.com/content/global-influencer-marketing-2019>

Wu, Wann-Yih, and Ching-Ching Ke. (2015) "An online shopping behavior model integrating personality traits, perceived risk, and technology acceptance." *Social Behavior and Personality*: *An International Journal*, 43 (1), p. 85.

Yoon, S.-J. (2002). The antecedents and consequences of trust in online-purchase decisions. *Journal of Interactive Marketing*, 16(2), 47–63. <https://doi.org/10.1002/dir.10008>

Appendices

Appendix A: The questionnaire (English Version)

Have you ever bought a product online?

- Yes
- No

1. Please indicate how often you buy from an online website

Never (1)	Rarely (2)	Occasionally (3)	Sometimes (4)	Often (5)	Frequently (6)	Always (7)

2. Which website you often use for your online purchase?

- Ouedkniss
- Jumia Algérie
- Loozap Algérie
- Batolis
- Yassir Market
- E-shop
- Autre...

In this section, please indicate your degree of agreement or disagreement with the following statements

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
3. I prefer to purchase online due to easement of online buying procedures							
4. Shopping online gives me larger options to choose from							
5. It is easier to buy online rather than going on to shop at store							

6. Shopping online saves my time and money as I don't have to go through heavy traffic besides saving fuel							
7. I purchase online due heavy discounts available online							
8. I physically need to check the products before purchasing it							

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
9. Jumia website fails to perform to my satisfaction.							
10. The privacy and security statement must be displayed before I make a purchase							
11. Customer's complaints are handled satisfactorily							
12. I prefer that the website doesn't keep my information							
13. There are no risks by sharing my personal information concerning my transaction with Jumia website							

14. I believe that advanced technology can certainly provide the desired security for my transactions online.							
---	--	--	--	--	--	--	--

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
15. I have concerns about my data privacy while shopping online							
16. I feel safe to provide my personal and private data while purchasing online							
17. I have no doubts that my transaction through Jumia website is transparent							
18. I am confident that Jumia website informs me if a problem occurs with any of my transactions							

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
19. Jumia website is easy to navigate							
20. I can find what I want without having to look elsewhere							
21. Jumia website provides useful information							
22. Easy to get the information I need to make my purchase decision.							
23. Jumia website contains sufficient information to identify different products							
24. It takes a minimal amount of effort on my part to get what I want							
25. Jumia website is always accessible							
26. Jumia website design and the used colors are attractive and pleasant							

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
27. Jumia website has a message area for customer questions and comments.							
28. Receiving a personal “thank you” note via e-mail or other media after placing an order to add a human touch to the website is appreciated							
29. There is always a sense of friendliness whenever i do interact through Jumia website							

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
30. I got exactly what I wanted							
31. The received items were undamaged							
32. I received all the items that I had ordered							

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
33. I am likely to change my opinion about a product, after viewing a positive or negative comment about that product on social networking sites from my contacts							
34. I am willing to buy a product after seeing a positive review about it from an influencer							

	Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Neutral (4)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
35. On social networking sites, I tend to seek for opinions from my contacts regarding a product that I intend to purchase							
36. I often use electronic medias to communicate about my online shopping experiences at Jumia							
37. I will recommend Jumia website to other customers							
38. I often share my knowledge and information to help others with their purchase decisions							
39. I will point out the positive aspects of Jumia website if anybody criticizes it							

40. Please indicate your age

- under 18 years old
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- Above 55 years old

41. Please indicate your personal income (Algerian Dinar/month)

- Less than 10000 DA
- 10000 DA to 25000 DA
- 25000 DA to 50000 DA
- 50000 DA to 75000 DA
- More than 75000 DA
- Prefer not to say

42. You are:

- Male
- Female

Appendix B : The questionnaire (Arabic Version)

هل سبق لك أن اشتريت منتجا من خلال التسوق الإلكتروني؟

- نعم
○ لا

1. كم غالبا ما تقوم بالتسوق من المواقع الإلكترونية؟

أبدا (1)	نادرا (2)	من مناسبة لأخرى (3)	أحيانا (4)	غالبا (5)	كثيرا (6)	دائما (7)

2. ماهو الموقع الذي تستعمله غالبا للتسوق على الانترنت؟

- Ouedkniss
○ Jumia
○ Loozap
○ Batolis
○ Yassir Market
○ E-shop
○ Autre...

في هذا القسم الرجاء الإشارة إلى مدى موافقتك أو معارضتك للتصريحات التالية:

أعارض بشدة (1)	أعارض (2)	أعارض بعض الشيء (3)	حيادي (4)	أوافق بعض الشيء (5)	أوافق (6)	أوافق بشدة (7)
						3. أفضل التسوق الإلكتروني نظرا لسهولة عملية الشراء
						4. التسوق الإلكتروني يمنحني خيارات أوسع وأكثر تنوعا
						5. التسوق الإلكتروني أبسط وأسهل من التسوق العادي
						6. التسوق الإلكتروني يدخر وقتي ومالي فلا أتأثر بالازدحام وأقتصد الوقود
						7. اتسوق الكترونيا نظرا للتخفيضات الهائلة المتوفرة على الانترنت
						8. أنا أحتاج أن أتفقد شخصا المنتجات قبل شرائها

أوافق بشدة (7)	أوافق (6)	أوافق بعض الشيء (5)	حيادي (4)	أعارض بعض الشيء (3)	أعارض (2)	أعارض بشدة (1)	
							9. موقع جوميا يفشل في تقديم خدمات ترضيني
							10. بنود الخصوصية والسلامة يجب أن تعرض قبل أن أقوم بعملية الشراء
							11. آراء وانتقادات الزبون تعامل بشكل مرضي وتؤخذ في الحسبان
							12. أفضل أن لا يقوم الموقع بتسجيل وحفظ معلوماتي
							13. لا توجد مخاطر في مشاركة معلوماتي الشخصية خلال معاملاتي مع موقع جوميا الإلكتروني
							14. أنا أؤمن أن التكنولوجيا المتقدمة تمكن الزبون من الحصول على الأمن المرجو خلال معاملاته الإلكترونية

أوافق بشدة (7)	أوافق (6)	أوافق بعض الشيء (5)	حيادي (4)	أعارض بعض الشيء (3)	أعارض (2)	أعارض بشدة (1)	
							15. لدي مخاوف من أن تنتهك معلوماتي الخاصة أثناء التسوق الإلكتروني
							16. لا أشعر بخاطر في تقديم معلوماتي الشخصية والخاصة أثناء الشراء عبر الأنترنت
							17. لا شك في أن معاملاتي عبر موقع جوميا تمتاز بالشفافية والمصداقية
							18. أنا واثق من أن موقع جوميا سيبيلغني في حالة حدوث مشكلة في أي من معاملاتي

أوافق بشدة (7)	أوافق (6)	أوافق بعض الشيء (5)	حيادي (4)	أعارض بعض الشيء (3)	أعارض (2)	أعارض بشدة (1)	
							19. موقع جوميا الإلكتروني سهل للاستعمال والبحث فيه
							20. يمكنني أن أجد ما أريد دون الحاجة إلى البحث في مكان آخر

						21. يوفر موقع جوميا الالكتروني معلومات مفيدة
						22. يوفر موقع جوميا جميع المعلومات التي أحتاجها لاتخاذ قرار الشراء
						23. يحتوي موقع جوميا المعلومات الكافية للتعريف بمختلف المنتجات
						24. يتطلب الأمر قدرا ضئيلا من الجهد من جانبي للحصول على ما أريد
						25. يمكن دوما اللوج الى موقع جوميا الالكتروني
						26. تصميم موقع جوميا الالكتروني جذاب وكذا الألوان المستخدمة به

أوافق بشدة (7)	أوافق (6)	أوافق بعض الشيء (5)	حيادي (4)	أعارض بعض الشيء (3)	أعارض (2)	أعارض بشدة (1)
						27. يحتوي موقع جوميا دائما على فضاءات لرسائل العملاء المتعلقة بأسئلتهم وتعليقاتهم
						28. إن تلقي رسالة "شكر" شخصية عبر البريد الالكتروني أو غيره من الوسائط بعد تقديم الطلبية في الموقع هي لمسة إنسانية تستحق التقدير
						29. هناك دائما شعور بالود عند تفاعلي وتعاملي عبر موقع جوميا

أوافق بشدة (7)	أوافق (6)	أوافق بعض الشيء (5)	حيادي (4)	أعارض بعض الشيء (3)	أعارض (2)	أعارض بشدة (1)
						30. في كل تجاربي السابقة في تعاملي مع موقع جوميا حصلت بالضبط على ما أردت
						31. البضائع المستلمة كانت في حالة سليمة وغير متضررة
						32. استلمت البضائع كاملة تماما كما طلبتها

أوافق بشدة (7)	أوافق (6)	أوافق بعض الشيء (5)	حيادي (4)	أعارض بعض الشيء (3)	أعارض (2)	أعارض بشدة (1)
						33. من المحتمل أن أغير رأيي حول أحد المنتجات، بعد مشاهدة تعليق ايجابي أو سلبي حول المنتج على مواقع التواصل الاجتماعي من جهات الاتصال الخاصة بي

							34. أنا على استعداد لشراء منتج بعد رؤية تقييم ايجابي عنه من أحد المؤثرين
--	--	--	--	--	--	--	--

أوافق بشدة (7)	أوافق (6)	أوافق بعض الشيء (5)	حيادي (4)	أعارض بعض الشيء (3)	أعارض (2)	أعارض بشدة (1)	
							35. على مواقع التواصل الاجتماعي، أميل إلى البحث عن آراء من جهات الاتصال الخاصة بي فيما يتعلق بمنتج أنوي شراءه
							36. غالباً ما أستخدم وسائل التواصل الاجتماعي للحديث عن تجاربي في التسوق من موقع جوميا
							37. سأوصي العملاء الآخرين ومعارفي بموقع جوميا الإلكتروني
							38. أنا غالباً ما أشارك معرفتي ومعلوماتي لمساعدة الآخرين في قرارات الشراء الخاصة بهم
							39. سأشير إلى الجوانب الايجابية لموقع جوميا إذا انتقده أحدهم

40. يرجى الإشارة إلى عمرك

- أقل من 18 سنة
 من 18 إلى 24 سنة
 من 25 إلى 34 سنة
 من 35 إلى 44 سنة
 من 45 إلى 54 سنة
 أكثر من 55 سنة

41. يرجى ذكر الدخل الشخصي (دج/شهر)

- أقل من 10000 دج
 من 10000 دج الى 25000 دج
 من 25000 دج إلى 50000 دج
 من 50000 دج إلى 75000 دج
 أكثر من 75000 دج
 أفضل عدم التصريح

42. يرجى الإشارة إلى جنسك

- ذكر
 أنثى

The Contribution of Psychological and Environmental Factors to Online Consumer Behavior

As part of the development of an end-of-cycle dissertation with a view to obtaining a master's degree in commercial sciences, specialty marketing and communication, at the "ESC" High school of commerce, we are carrying out a study on: "The contribution of psychological and environmental factors to online consumer behavior".

We invite you to participate in this questionnaire which will only take a few minutes of your time.

The answers remain anonymous and the results will only be used for academic purposes.

We thank you in advance for your invaluable assistance in carrying out this research work

**Obligatoire*

1. Have you ever bought a product online ? *

Une seule réponse possible.

Yes

No

Section sans titre

2. 1. Please indicate how often you buy from an online website *

Une seule réponse possible.

Never

Rarely

Occasionally

Sometimes

Often

Frequently

Always

38. 38. I will recommend Jumia website to other customers

Une seule réponse possible.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

39. 39. I often share my knowledge and information to help others with their purchase decisions *

Une seule réponse possible.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

40. 40. I will point out the positive aspects of Jumia website if anybody criticizes it

Une seule réponse possible.

	1	2	3	4	5	6	7	
Strongly disagree	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	Strongly agree

Respondent identification

41. 41-Please indicate your age *

Une seule réponse possible.

- under 18 years old
- 18-24 years old
- 25-34 years old
- 35-44 years old
- 45-54 years old
- Above 55 years old

42. 42-Please indicate your personal income (Algerian Dinar/month) *

Une seule réponse possible.

- Less than 10000 DA
- 10000 DA to 25000 DA
- 25000 DA to 50000DA
- 50000 DA to 75000 DA
- More than 75000 DA
- Prefer not to say

44. 43-You are : *

Une seule réponse possible.

- male
- Female

Abstract

The aim of this research is to examine the Algerian consumer's online buying behavior, in particular Jumia customers, and to investigate the psychological and environmental factors that can influence online buying behavior and e-WOM behavior. Modern technology, particularly internet, greatly influences how business is being conducted, which makes embarking on such research immensely justified. This study is based on a review of relevant literature and a questionnaire designed to collect empirical data for quantitative research in which a sample of 121 respondent is used. The findings demonstrate that perceived risk and trust influence the online consumer's buying behavior. However, no environmental factor studied in this research has an impact on Jumia's customers purchase behavior. Similarly, the results of this research underline that there are three significant predictors that positively influence the e-WOM behavior of Jumia customers; namely; website social presence, reference groups, and the product/service quality.

Key words: Online consumer behavior, online purchase behavior, e-WOM, psychological factors, perceived risk, trust, environmental factors.

ملخص

ان الهدف من هذا البحث هو فحص سلوك المستهلك الالكتروني للمستهلك الجزائري، وبصفة خاصة زبائن موقع جوميا الالكتروني، والتحقيق في العوامل النفسية والخارجية (عوامل متعلقة بالمحيط) التي يمكن أن تؤثر على سلوكه الشرائي وكلامه الشفهي عبر الإنترنت. إن للتكنولوجيا الحديثة، وخاصة الإنترنت، تأثير كبير في ممارسة الأنشطة التجارية، ما يجعل اختيار هذا الموضوع للبحث مبررا. تستند هذه الدراسة من جهة على مراجعة الدراسات السابقة ذات الصلة بالموضوع، كما تعتمد من جهة أخرى على استبيان مصمم لجمع البيانات الكمية، حيث تم استخدام عينة من 121 مشاركا. تظهر النتائج أن المخاطر المحسوسة والثقة تؤثران على سلوك الشراء لدى المستهلك عبر الإنترنت. من جهة أخرى، لا يوجد أي عامل محيطي تمت دراسته في هذا البحث له تأثير على سلوك الشراء لدى زبائن موقع جوميا الالكتروني. وبالمثل، تؤكد نتائج هذا البحث أن هناك ثلاثة عوامل تؤثر ايجابا على سلوك الكلام الشفهي الالكتروني لدى زبائن جوميا وهي: الحضور الاجتماعي للموقع الالكتروني، المجموعات المرجعية وجودة المنتج او الخدمة.

الكلمات المفتاحية: سلوك المستهلك الالكتروني، سلوك الشراء عبر الانترنت، الكلام الشفهي الالكتروني، العوامل النفسية، الخطر المحسوس، الثقة، العوامل المحيطة.

Résumé

Cette recherche vise à examiner le comportement d'achat en ligne des consommateurs algériens, en particulier les clients de Jumia, et d'étudier les facteurs psychologiques et environnementaux qui peuvent influencer le comportement d'achat en ligne et le comportement de bouche-à-oreille électronique. La technologie moderne, en particulier Internet, influence grandement la façon dont les affaires sont menées, ce qui rend le lancement de tel recherche extrêmement justifiée. Cette étude est basée sur une revue de la littérature pertinente et un questionnaire conçu pour collecter des données empiriques pour une recherche quantitative dans laquelle un échantillon de 121 répondants est utilisé. Les résultats montrent que le risque perçu et la confiance influencent le comportement d'achat du consommateur en ligne. Cependant, aucun facteur environnemental étudié dans cette recherche n'a d'impact sur le comportement d'achat des clients de Jumia. De même, les résultats de cette recherche soulignent qu'il existe trois prédicteurs significatifs qui influencent positivement le bouche-à-oreille électronique des clients de Jumia à savoir ; la présence sociale du site Web, les groupes de référence et la qualité du produit/service.

Mots clés : Comportement des consommateurs en ligne, comportement d'achat en ligne, bouche-à-oreille électronique, facteurs psychologiques, risque perçu, confiance, facteurs environnementaux.