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ISTANBUL AYDIN UNIVERSITY

INSTITUTE OF SOCIAL SCIENCES

OPERATORS INFLUENCING CUSTOMER SATISFACTION LEVELS IN AN E-COMMERCE PLATFORM: A CASE STUDY ON JUMIA AND SOUQ.COM IN EGYPT

MBA THESIS

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YÜKSEK LİSANS TEZ ONAY FORMU

Enstitümüz İşletme İngilizce Anabilim Dalı İşletme Yönetimi İngilizce Tezli Yüksek Lisans Programı Y1612.130113 numaralı öğrencisi Belal MAHMOUD'un **"Operators Influencing Customer Satisfaction levels in An E-Commerce Platform: A Case Study On Jumia and Souq.com in Egypt"** adlı tez çalışması Enstitümüz Yönetim Kurulunun 27.06.2019 tarih ve 2019/15 sayılı kararıyla oluşturulan jüri tarafından oybirliği/oyçokluğu ile Tezli Yüksek Lisans tezi 09.07.2019 tarihinde kabul edilmiştir.

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DECLARATION

I hereby declare that all information in this thesis document has been obtained and presented in accordance with academic rules and ethical conduct. I also declare that, as required by these rules and conduct, I have fully cited and referenced all material and results, which are not original to this thesis.

Belal MAHMOUD

To my beloved parents and my brothers
Whom are always next to me
No matter what …

FOREWORD

This thesis could not be previewed as the mere result of the efforts of the researcher alone, as before everything I would like to express my utmost gratefulness to Allah and his blessing to me in all stages of my life. I would like to also present this research as a thank you letter to all the teachers that have taught me throughout my academic career, ending them with my dear Assist. Prof. Dr. ÖZGÜL UYAN, my mentor and instructor through this journey.

Finally, I would like to thank my family for their endless support, my friends and the contributors in this research whom I am not able to thank enough.

July, 2019   Belal MAHMOUD

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ABBREVIATIONS

AMOS	**:**	Analysis of Amount Structures
ANOVA	**:**	Analysis of Variance
ANSI	**:**	American National Standards Institute
B2B	**:**	Business to Business
B2B2C	**:**	Business to Business to Customer
B2C	**:**	Business to Customer
B2E	**:**	Business to Employee
B2G	**:**	Business to Government
C2B	**:**	Customer to Business
C2B2C	**:**	Customer to Business to Customer
C2C	**:**	Customer to Customer
C2G	**:**	Customer to Government
DV	**:**	Dependent Variable
E-BANKING	**:**	Electronic Banking
E-BUSINESS	**:**	Electronic Business
E-COMMERCE	**:**	Electronic Commerce
EDI	**:**	Electronic Data Interchange
E-LOYALTY	**:**	Electronic Loyalty
E-PAY	**:**	Electronic Payment
E-RETAIL	**:**	Electronic Retailer
E-SATISFACTION	**:**	Electronic Satisfaction
E-SERVICE	**:**	Electronic Service
E-STORE	**:**	Electronic Store
E-TRANSACTION	**:**	Electronic Transaction
G2C	**:**	Government to Customer
ICT	**:**	Information and Communication Technology
ID	**:**	Independent Variable
IQ	**:**	Information Quality
IT	**:**	Information Technology
IWS	**:**	Internet World Stats
PIM	**:**	Product Information System
SET	**:**	Secured Electronic Transaction
SKU	**:**	Stock Keeping Unit
SME	**:**	Small to Medium Enterprise
SPSS	**:**	Statistical Package for Social Science
SSL	**:**	Secure Sockets Layer
TAM	**:**	Technology Acceptance Model
VAN	**:**	Value Added Network
WAN	**:**	Wireless Area Network
WWW	**:**	World Wide Web

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E-TİCARET PLATFORMUNDA MÜŞTERİ MEMNUNİYET DÜZEYİNİ ETKİLEYEN FAKTÖRLER: MISIR'DA, JUMIA VE SOUQ.COM ÜZERİNE BİR VAKA ÇALIŞMASI

ÖZET

Teknoloji ve alışveriş kültürü hızla ilerlerken, elektronik ticaret büyük bir devrim yaratıp daha kolay ve basit bir alışveriş anlayışı oluşturmayı başarmıştır. Bu anlayış müşteriler açısından daha uygun fiyatlarla daha fazla seçeneğe ulaşmayı kolaylaştırmıştır. Artık müşteriler, herhangi bir ürünü beğenmediği takdirde daha rahat ve hızlı bir şekilde alışveriş yaptıkları mağazayı değiştirebilmektedirler. Bu yüzdendir ki yaygın alışveriş platformları ile elektronik ticaretteki "müşteri memnuniyeti" kavramı farklılık gösterebilmektedir. Ortadoğu'da ve özellikle Mısır'da son zamanlarda elektronik ticaret daha yaygın bir hale gelmiştir. Bu durum da alışveriş siteleri arasında büyük bir rekabetin başlamasına sebep olmuştur.

Bu araştırmanın amacı, Ortadoğu'da B2C sektörünü yöneten Mısır'ın en büyük alışveriş siteleri olan Souq.com ve Jumia'yi inceleyerek, online müşteri memnuniyetini en çok etkileyen faktörleri ortaya çıkarmaktır. Araştırmada müşteri memnuniyetini etkileyen faktörlerden en önemlileri olan güven, web sitesi tasarımı ve erişilebilirliği, bilgi kalitesi, sipariş teslimatının kalitesi, güvenlik ve gizlilik, ve ödeme yöntemleri bağımsız değişken olarak kullanılmıştır. Söz konusu iki alışveriş sitesi yoluyla daha evvel online alışveriş deneyimi olan müşterilerden, sosyal medya platformlarında yayınlanan bir anket kullanılarak, online müşteri tatminini etkileyen altı faktöre ve demografik faktörlere ilişkin yanıtlar toplanmıştır. 479 katılımcıdan veri sağlanmıştır. Söz konusu veriler SPSS 22 ve AMOS programları ile analiz edilmiştir. Araştırmada sonucunda elde edilen bulgulara göre; müşteri memnuniyeti ile söz konusu tüm faktörler arasında olumlu bir bağlantı bulunmaktadır. Bu faktörler arasında en büyük etkiye sahip olanlar ise güven ve ödeme yöntemleridir. Bu sonuçları göz önünde bulundurarak idari etkenler ve sorunlar üzerinde durulmuş ve bir takım çıkarımlar yapılmıştır. Araştırmanın sunduğu sonuçların elektronik ticaret platformlarına, müşterilerinin güvenini kazanmaları ve onların ihtiyaçlarını ve beklentilerini daha iyi kavramaları konusunda destek olması beklenmektedir. Böylece bu platformlara, rekabet avantajı sağlama, daha büyük müşteri kitlelerine ulaşma ve müşteri memnuniyetini artırma konularında katkı sağlanması hedeflenmektedir.

Anahtar Kelimeler: *Elektronik Ticaret, Online Alışveriş, Müşteri Memnuniyeti*

OPERATORS INFLUENCING CUSTOMER SATISFACTION LEVELS IN AN E-COMMERCE PLATFORM: A CASE STUDY ON JUMIA AND SOUQ.COM IN EGYPT

ABSTRACT

While technology and shopping culture are advancing rapidly, electronic commerce has succeeded in creating a great revolution and creating an easier and simpler shopping concept. This understanding has made it easier for customers to reach more options at more affordable prices. Now, if customers don't like any product, they can change the store they shop more easily and quickly. For this reason, the concept of customer satisfaction in electronic commerce can be different from common shopping platforms. In the Middle East and especially in Egypt, electronic commerce has become more widespread recently. This has led to a great competition between shopping sites.

The aim of this research is to investigate the factors that affect online customer satisfaction the most by examining Souq.com and Jumia, Egypt's largest shopping websites that manage the B2C sector in the Middle East. In the research, trust, website design and accessibility, information quality, order fulfilment quality, security and privacy, and payment methods, which are the most important factors affecting customer satisfaction, were used as independent variables. Using a questionnaire shared on social media platforms, responses regarding the six factors that affect online customer satisfaction and the demographic factors were collected from the customers who have previously experienced online shopping through these two shopping sites. The data was collected from 479 participants. The data were analyzed with SPSS 22 and AMOS programs.

According to the findings obtained in the research; there is a positive relationship between customer satisfaction and all of these factors. Among these factors, trust and payment methods have the greatest impact. Considering these results, administrative factors and problems have been emphasized and some inferences have been made. The results of the questionnaire are expected to support electronic commerce platforms to gain the trust of their customers and better understand their needs and expectations. Thus, it is aimed to contribute to these platforms in terms of increasing customer satisfaction, providing competitive advantage and reaching larger customer masses.

Keywords: *E-commerce, Online Shopping, Customer Satisfaction*

1. INTRODUCTION

1.1 Background of the study

E-commerce is the process of buying and selling services and products through the Internet and other daily transactions that are done electronically, such as bill payments. For now, the idea of living without e-commerce may seem irrational.

The beginning and evolvement of electronic commerce started before almost 40 years and is continuing to grow to this day through technology, as well as dozens of companies that enter the market through the internet daily.

Through electronic data and telephone sales, the emergence of modern electronic commerce has been pre-eminently linked to the emergence of the internet. Internet shopping became possible only when the public was granted internet access in 1991. Amazon was the first in the United States to start selling products online, and then the thousands of websites that followed it. Since then, the experience, convenience and safety of e-commerce has improved dramatically and drastically (Laudon, K. C., & Traver, C. G. 2008).

Online shopping was introduced in 1979 by Michael Aldrich in the UK. He was able to create a connection between a television and a processing computer using a telephone line. It was marketed in 1980 targeting B2B systems operating in the UK, Spain and Ireland. In 1992, Charles M. Stack used this in creating Book Stacks Unlimited which is considered the first online bookstore operating as a dial-up board before Amazon was created by Jeff Bezos. Two years later, the business moved to the internet before joining Barnes and Noble (Hand, C. 2015).

1.1.1 E-commerce timeline

According Phillips, J. (2016), The introduction of e-commerce was to improve data exchange through EDI which took place of regular mail and sending documents through FAX, with digital exchange of data from a computer to another. This enabled trading companies to deliver orders, bills and other trading

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transactions using a format that meets ANSI ASC X12. As soon as the order is received, it is reviewed using VAN and is then transferred to a special processing system directed towards the recipient. EDI allows safe data transfer without human interfere, and this is all possible thanks to Michael Aldrich, who invented it in 1979, as aforementioned.

It was clear from the start that B2B online shopping will be profitable, but B2C will not be as successful till the beginning of the usage of PCs and the WWW known as the internet. In 1982, France set an introduction to an internet web called Minitel, connecting around 25 million users, and the system reached its peak in 1991, and then eventually started to collapse, till its final discontinuing in 2011.

In 1991, Tim Berners Lee and Robert Cailliau provided the idea of building what is called the "hypertext project", then referred to as WWW. In the same year, Lee used NeXT computer to create a web server that is the very first in history, before providing it to the public later in the same year. This then led to the development of URL, HTML and HTTP. Further through this year, the National Science Foundation removed its restrictions on trading in this web, which led to the considerable flourish of e-commerce. In September 1995, NSF started applying fees on registering domain names, which reached 120000 domains, and in just 3 years this number did rise to a 2 million. NSF's role has come to an end later, leaving restricting to the commercial sector.

In the beginning, people feared online shopping due to various reasons, but the innovation of the SSL and the encryption certificate by Netscape enabled verifying and acknowledging whether a website possesses a certified SSL certificate or not, which in return determined whether it is trustworthy or not.

1.1.2 Marketplaces emerge

In the mid-1990s there was a great progress in trade through the internet. One of the most important e-commerce sites that emerged at the time was Amazon, which looked like a bookstore and grew into the world's largest online retailer. The Amazon collection now includes not only books but music, video, furniture, clothing, food, toys and etc. (Sudweeks, F., & Romm, C. T. 2000).

Amazon is one of the first retailers to start the idea of evaluating products to become one of the most effective means to attract customers and increase sales. Another success story in the e-commercial market was eBay, which is an online auction site that was launched in 1995, which added to the options of electronic commerce for traders in the late nineties. In 2005, Amazon launched the Amazon Prime service, a membership that offers two days of free shipping within the United States for an annual subscription. This has led other sites and traders to pay attention to and develop shipping and other means, all of which have contributed to the growth and flourish of e-commerce (Berg, N., & Knights, M. 2019).

1.2 Statement of the problem

Electronic commerce plays an important role in the economic growth of many nations on a large scale, but there is a direct relationship between the knowledge of the role of electronic commerce and competition; the more the knowledge on electronic commerce spreads, the fiercer and stronger the competition between platforms becomes. With the growth of competition and conflict between platforms, profit margin is reduced. In order to create sustainability and competitiveness, it is necessary for platforms and e-commerce sites to search for new and innovative ways to distinguish their services (Thomas, B. 2010).

According to many reports, from 1995 to 2008 the pace of e-commerce growth was between 10 and 20 percent, but with the onset of the global economic crisis and the economic recession, this growth had a slight downfall, but did not last long before it sharply returned since 2013 (Laudon, K. C., & Traver, C. G. 2016).

According to the below Figure 1.1, the global population of e-commerce users continues to increase.
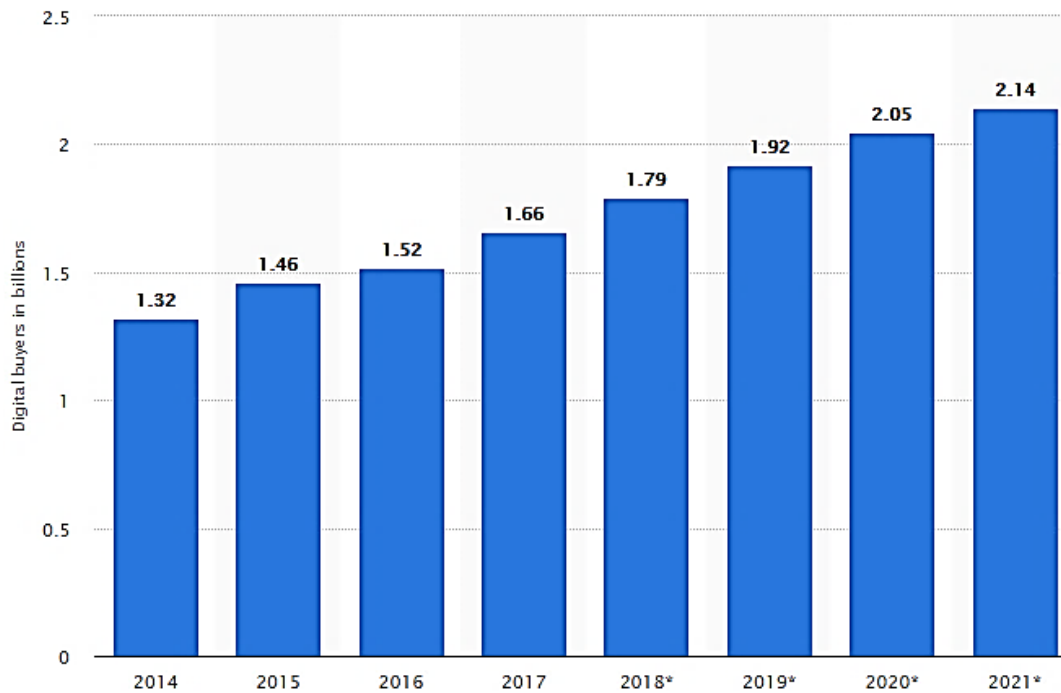
Figure 1.1: The Annual Expected Growth in Global E-commerce Volume from 2014 to 2021

Source: Statista, 2019

This continuous growth has created a state of competition that results from the diversity of customers' demands and needs and drives organizations and e-commerce platforms to look for factors affecting customer satisfaction and how to maintain it.

Over the past years, Egypt, as one of the countries of the African continent, has witnessed a remarkable increase in the use of internet. According to Statista statistics in (Figure 1.2) Egypt recorded 49.23 million internet users till the end of 2017, becoming second after Nigeria in the African continent. (Global e-retail growth rate 2021. 2019).

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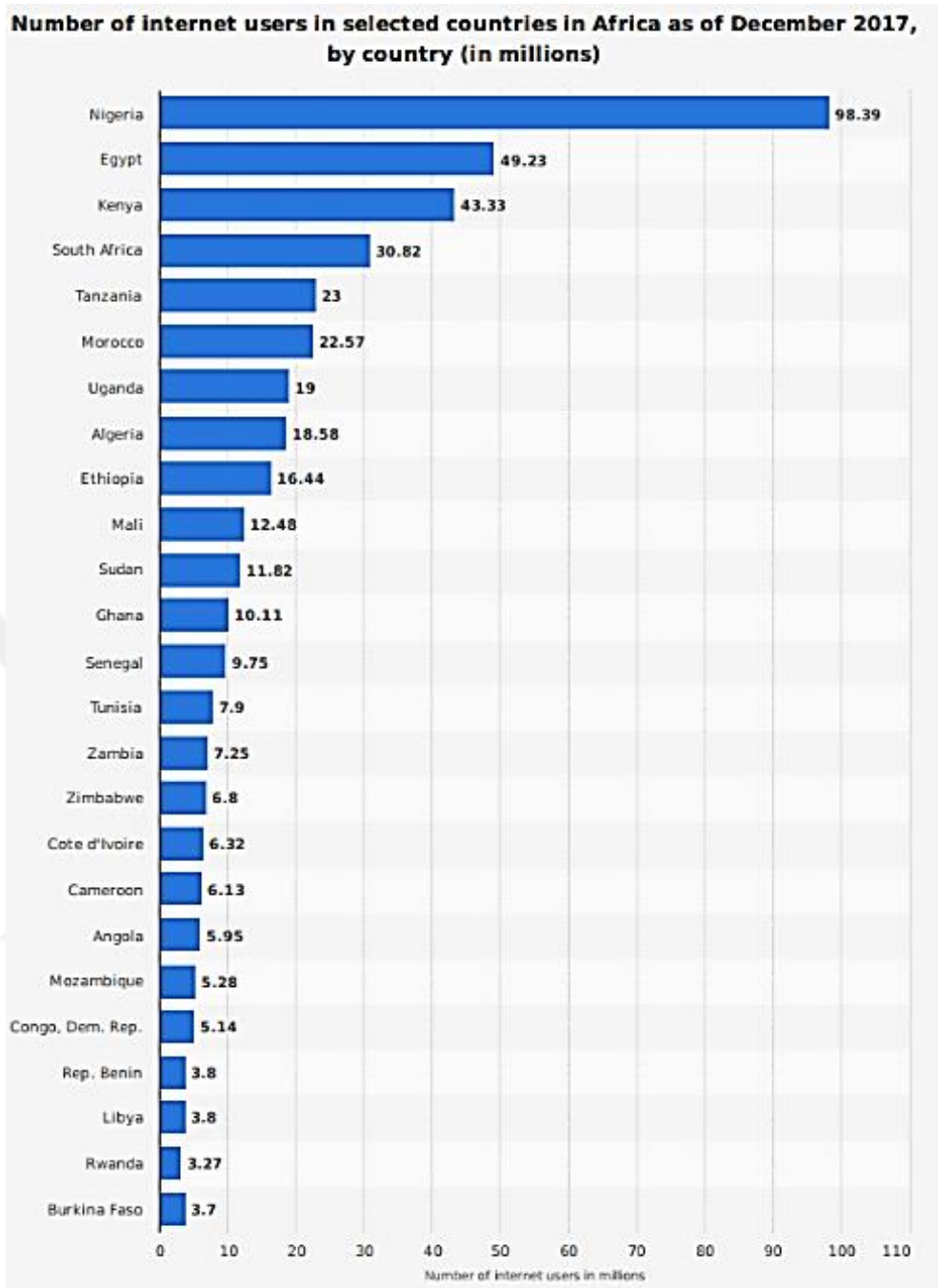
Figure 1.2: Number of Internet Users in Africa as of December 2017, by country (in millions)

Source: Statista, 2017

As recorded, the increase in the number of frequent internet users over the past five years is almost 14% (40% in 2013, 53.5% in 2019) as the below (Figure 1.3). In the past decade, the internet has seen rapid growth in Egypt; statistics from 2015 show that the number of daily visitors of e-commerce sites in Egypt had

risen from 12 million to 18 million. (Africa number of internet users by country 2019. 2019, March).
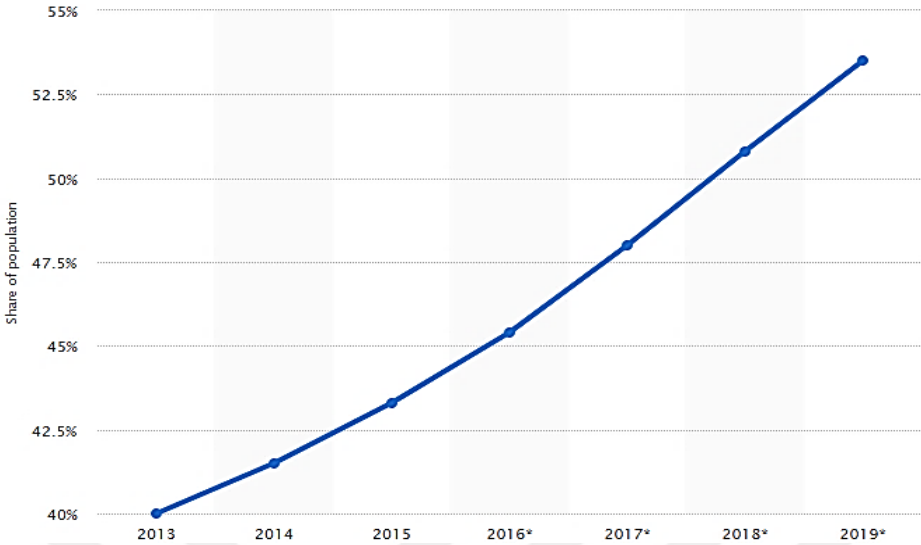
Figure 1.3: Internet User Penetration in Egypt from 2013 to 2019
Source: Statista, 2019

This has led to the development of the internet and its services in a large and rapid manner, which in turn led to the development of buying, selling and exchange of services and products and the growth of electronic commerce. (Pepe, T. 2019). As for the number of e-commerce sites in Egypt, according to the latest statistics, developed companies has merged into the world of ecommerce enormously.
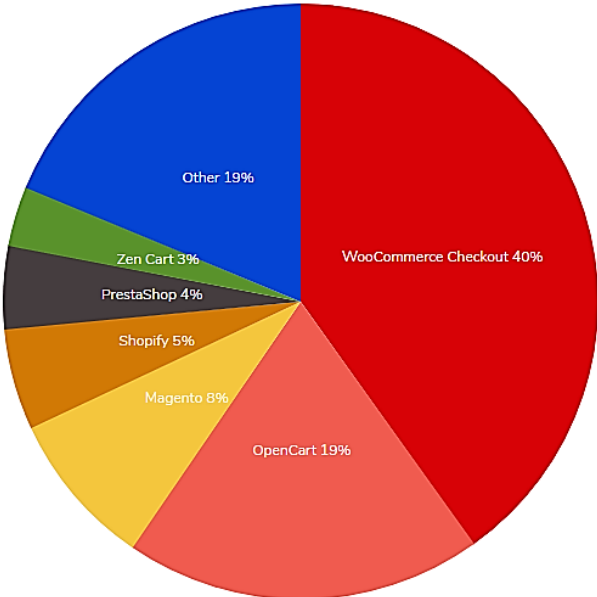
Figure 1.4: E-commerce Usage Distribution in Egypt (Distribution for Websites Using E-Commerce Technologies)
Source: Trends, 2019

According to the statistics of the company yaoota.com, one of those interested in this field in Egypt, and in their study in June 2016, the number of e-commerce platforms in Egypt is approximately 450, which means a 59% increase in the percentage of e-commerce platforms in Egypt over the last three years.

According Pepe, T. (2019).The problem faced by SMEs in the e-commerce market mainly is the financial and logistical difficulties and the lack of full knowledge of the factors influencing customer satisfaction, even though the number of internet subscribers encourages the spread of the concept and operation of e-commerce in Egypt, especially when we take the increasing awareness of users during the past years in consideration.

The above statistics show the growth and spread of e-commerce in Egypt and the challenges it faces due to weak infrastructure and lack of readiness of the financial system generally. However, the number of e-commerce platforms and employees is increasing due to the number of e-commerce sites and online shopping platforms providing a wide range of products, options and services.

In 2017, e-commerce or online shopping in the North Africa and Middle East (MENA) amount to $8.3 billion, with an annual growth average of 25%. It is prediction to hit $28.5billion by 2022, with a permeation rate of total retail sector sales of 7% with the Gulf Cooperation Council (GCC) and Egypt accounting for 80% of the region's online shopping or e-commerce market (Karrar, 2018).

On the other hand, identifying operators generating customer satisfaction in an e-commercial platform and making appropriate approaches to their employment is a crucial step towards improving the services provided by B2C institutions. The tremendous expansion of online shopping in Egypt and Africa highlights the importance of working on customer satisfaction, which is a factor of many in the process of building and designing any site or platform for electronic commerce. It has been found that the evaluation of using, shopping, product and information plays an essential role in customer satisfaction, as well as its performance to infer customer response and understand their long-term thinking (Guo, Ling and Liu, 2012; Gupta and Khincha, 2015).

Before entering any e-commerce platform, all online shoppers have some expectations regarding various aspects, which if by any mean disappointed, leads to looking for other alternatives.

Understanding the key standards of online customer satisfaction is therefore essential, as well as understanding their decision-making mechanism and identifying effective requirements for satisfying services. This can help e-commerce platforms as well as their operators to develop their performance, as well as upgrade the services provided and adjust their operational strategies in order to suit customers' needs and expectations in an efficient manner.

Focusing on customers, influencing decision-making behaviors and buying intentions in an e-commercial environment is often implemented through online shopping. At the same time, there is a difference in the form of online shopping between eastern and western nations. Therefore, there are very few researchers in Egypt that are solely interested in this aspect, which naturally leads to the scarcity of information addressed regarding the concept of satisfaction of online shopping customers and electronic trading platforms in said eastern nations, including Egypt. Based on the above arguments, we have overcome the behavioral aspects of consumers and focused on the factors that operates the level of satisfaction of e-commerce customers in the B2C platforms in Egypt, which is important when taking the decision of making online purchases (Monahan, K. 2018).

1.3 Significance of the study

The significance of the study can be described in the following points:

- The main objective of the study is to attempt to discover the main factors influencing the level of satisfaction of e-commerce customers in Egypt in the B2C ecommerce platforms and verify the relationship between them in order to establish a structure through which the hypotheses developed can be examined.

- Factors that influence and support the success of electronic commerce in Egypt.

- Some recommendations may be made to e-commerce site managers and platform owners in Egypt to understand customer perceptions, improve their satisfaction, and maximize their expectations.

- Paying the attention of e-commerce site managers and platform owners to customer satisfaction and adoption as a competitive advantage.

- The results of the study may encourage the Egyptian authorities and stakeholders to seriously consider increasing overall customer satisfaction on e-commerce platforms and removing obstacles for both customers, owners and platform managers.

- We hope that this will lead to further research and studies in the field of customer satisfaction in the B2C sector in the e-commerce platform in Egypt.

1.4 Purpose of the study

This study's goal is to identify the factors influencing the satisfaction of e-commerce customers. To fulfil this, the researcher chose Souq.com and Jumia as the two most popular e-commerce sites in Egypt, using a questionnaire as an evaluation tool. The data was collected from the clients of Souq.com and Jumia and then analyzed to finalize the results. The results of this questionnaire will hopefully help e-retailers in Egypt understand the prevailing factors affecting the satisfaction, as well as providing recommendation regarding specific points the researcher thinks will improve customer satisfaction, expand businesses and achieve a competitive advantage.

1.5 Research questions

According to the aforementioned problem, this research aims to find answers for the following questions:

Q1. What are the factors influencing the level of satisfaction of e-commerce customers in the B2C sector in Egypt?

Q2. What is the relationship between these factors and customer satisfaction, and what is the extent of their impact?

1.6 Thesis outline

This thesis is divided into six chapters:

- Chapter 1: This chapter explains the background of the study, with an overview of customer satisfaction regarding online shopping, followed by a statement of the problem with a focus on the study, and finally describing the importance of the study with the statement of goals and research questions.

- Chapter 2: Firstly, the statement of important concepts related to the study, presented in different definitions of key terms such as: e-commerce and customer satisfaction, as well as the features of e-commercial obstacles and challenges, followed by the factors affecting customer satisfaction, and concluded with reviewing the literary aspect, including a number of studies and theories from various researchers that has took place, analyzed and discussed in this area.

- Chapter 3: The research which is designed according to the purpose of this study is carried out in this chapter. At first, conceptual model of the study and related proposed hypotheses are provided. Then, the research methodology of the study that was used to meet the aims of the thesis, including research design, data collection, survey, procedures, study sample, research restrictions and limitations and statistical techniques are presented. Finally, data obtained from the questionnaire are analyzed by using substantial statistical techniques and the summary of the findings and the provision of the answers to the study's questions are put forward.

- Chapter 4: This section includes explanation of the obtained data and discussion of the related outcomes from other studies in this field, and managerial implications and suggestions for the future researches, as well.

2. LITERATURE REVIEW

2.1 Introduction

The revision of related previous studies as well as the improvement of the theoretical background of a research in order to imply practical results is followed.

This chapter provides theoretical studies and basic information about several cases of relation, including definitions of e-commerce, its types, examples of it, its characteristics, as well as several definitions of customer satisfaction.

In addition, this chapter includes previous testing studies in this sector and provides studies related to the study at hand. The determination of the operators influencing customer satisfaction in the e-commercial sector is a substantial step towards helping businesses thrive.

The revision of previous related studies provided in the second chapter indicates that each study essentially means itself in terms of influence on customer satisfaction. The reason is that each researcher chooses and studies a topic based on the characteristics of their targeted environment of study, which leads to the difference in obtained results. Finally, the researcher believes there is no specific indicators of the measurement levels of customer satisfaction that leads to repeated visits and purchases.

2.2 Theoretical studies

2.2.1 Definitions, Types, Examples and Features of E-commerce

For the complete and simplified understanding of this study, there are some definitions and explanations for the terms of e-commerce that are used in all stages of the study.

2.2.1.1 Definitions of e-commerce

Generally, e-commerce is defined as conducting sales and buying through a digital platform.

Additionally, e-commerce could be defined as follows:

The exchange of trade information, the maintenance of trade relations and the conduct of business transactions through telecommunication networks (Zwass, 1996).

E-commerce is often seen as a simple and superficial method, as it is only a buying and selling activity using the internet, or just restricting it to certain operations that take place on certain sites such as Amazon. E-commerce, however, involves many financial transactions through electronic platforms between organizations and customers, and therefore should be considered the key in all transactions conducted electronically between institutions and any other parties dealing with it. Based on this definition, non-financial transactions, such as the request for information and data will be considered as an integral part of electronic commerce (Kalakota and Whinston, 1997).

These definitions demonstrate that e-commerce is not limited to factual buying or selling, but also includes pre-sales and post-sales. It is facilitated using a set of digital technologies that enable electronic connection, which includes communicating through the internet, either through websites or e-mails, as well as other electronic media.

2.2.1.2 Types of e-commerce models

Business to Business (B2B):

The B2B segment focuses on providing goods and services to other companies, including online markets and wholesale sites such as, Alibaba, Magento.

The B2B sector is a form of trade where platforms operate as intermediaries that enable companies to work together online, as in traditional business relationships (Bromiley and Cummings, 1995).

Business to Consumer (B2C):

This is the most widely used e-commerce model where companies sell their goods directly to the end consumer. These companies operate in traditional retail mode but sell their goods online. Examples include standard e-commerce stores, social shopping sites, such as Amazon, Souq.com, Jumia, etc.

The B2C sector is in the second tier after the B2B segment in terms of value, but it includes many formulations and complexities because it has a large number of sellers, as well as buyers who make millions of conversions and diverse transactions on a daily basis. For example, if we consider that Amazon is one of the sites that offers tens of thousands of products to customers, and each customer makes a purchase for one or more products, but that requires a huge effort to manage and operate that process, Each customer may make a purchase that appears to be relatively small, but each process requires a lot of speed and professionalism, as the shipment of products requires disciplined timing, product recalls or multiple orders, all of which require complex and difficult management. Applications daily can summarize the B2C sector in ecommerce (Rainer and Turban, 2008).

Business to Government (B2G):

B2G represents a business model that refers to private companies that sell products, services or information to governments or government agents.

B2G models provide a method for companies to bid on governmental projects or services that government's need for their organizations, including public sector institutions. B2G's online activities are increasingly being accelerated in recent times by bidding through real time (Staden, P. V. 2007).

A common exemplar of a B2G service would be a rising business' provision of IT consultation to a local government agency.

The B2G category covers interactions regarding all sorts of services, goods and information between businesses of all sizes and governments at all levels (Bhatnagar, 2009).

Business to Employee (B2E):

The B2E sector focuses on business-to-business and non-customer-oriented businesses, and this sector has emerged as a result of the continuing lack of IT workers, more broadly what companies do to attract well-qualified employees and retain them in a competitive market. For example, aggressive recruiting tactics, bonuses, benefits, education opportunities, flexible hours, and employee empowerment strategies (Bridger, 2018).

Consumer to Business (C2B):

The C2B sector deals with the services provided by consumers to the companies. These services can be purchased through the internet on e-commerce sites. For example, web developers, designers and others working online, and perhaps the most popular of these platforms are UPWORK and Freelancer (Doyle, 2016).

Consumer to Consumer (C2C):

The C2C sector in e-commerce provides a platform for consumers to sell their products to other consumers. The advantage in this sector is that the seller is a consumer of another commodity. Thus, these sites often reap profits through commissions or advertising. For example, the site OLX is considered one of the most famous sites in the world that is also strongly located in Egypt, as well as LETGO and many others (Belohlávek, 2012).

Consumer to Government (C2G):

The C2G sector includes transactions between citizens and the government. For example, payments of taxes, issuing certificates and other documents, etc. Although we can not specify consumer accuracy as in electronic commerce, we can find many C2G applications within the range of transactions dealing efficiently and effectively with electronic trading systems and techniques (Great Britain: Parliament: House of Commons: Business; Innovation and Skills Committee, 2013).

Business to Business to Consumer (B2B2C):

The B2B2C Trade sector is a combination of the B2B sector and the B2C sector to provide a full product or service. In theory, it is a reciprocal process that creates benefit for all parties.

It is also one of the sectors of electronic commerce and online shopping in which companies aim to partner with other sectors and work on the development of a product or service, and then to provide the last consumer. For example, pharmaceutical manufacturers and their relationship with the medical sectors and outlets for the sale of medicines to the consumer, or an e-commerce site combining producers of a specific product that is then presented to the last consumer (Mohammed Rezaul, 2012).

Government to Business (G2B):

The G2B sector focuses on the interactions and business relationships between the government and numerous institutions, including companies and non-profit organizations, to support transfers, contracts, data collection and more.

The G2B interactions raise awareness of the opportunities to deal with the government, save costs and performance of transactions. For governments, G2B interactions help in decreasing costs, increasing procurement's capacity and introducing renovating methods to sell surplus materials (Garson, 2008).

Government to Citizen (G2C):

The G2C model is a business system between the government and citizens, and between governments and industries. This model aims not only to help the government accomplish its daily business, but also to facilitate communication with external entities such as citizens and companies using ICT (Weerakkody, 2010).

Government to Government (G2G):

The G2G model is among government institutions, some of which through electronic participation in data or information exchange between government's agencies and organizations and meant to back e-governments by improving connections, access and sharing of data (Anttiroiko, A. 2008).

There are many factors that push governments to adopt this model to reduce the costs of traditional methods, as well as the speed and accuracy and efficiency of procedures (Anttiroiko, 2008).

Consumer to Business to Consumer (C2B2C):

The C2B2C sector is closely linked and related to electronic commerce. Here, business activity acts as an intermediary between two parties, one being the seller and the other being the buyer. This type of business is very common on the Internet, where one of the platforms provide a system through which individuals can communicate together and make the sale and purchase. One of the largest examples of this is eBay, where the person puts his product and is bidding and accepting the convenient price (Experts, 2019).

2.2.1.3 Examples of e-commerce:

E-retail:

With the number of smart devices around the world increasing, the access to the internet becoming easier and faster, and the e-commercial retailers becoming aware of the methods of marketing, attracting and dissolving barriers and fears related to shopping online, people are being almost unconsciously shifted towards making online purchases in all its forms (Kalia, 2013). It is estimated that global ecommerce sales will exceed the mark of 3 trillion in 2019. Alongside this growth comes the challenges that the e-commercial retailing industry comes face to face with on their journey towards making online shopping the world's favorite method of shopping. Internet based retailers are now constantly innovating techniques, methods and strategies to overcome the barriers (Granata, G., Moretta Tartaglione, A., & Tsiakis, T. 2019).

E-retailing, if defined, stands for the direct sales of information, products and services through virtual stores across the web, which includes all e-commerce actions that are performed with end consumers (B2C form of business transacting). This includes many categories, including e-retailing, auctioning, online jobs, matrimony, property, group-buying, auto sales and luxury brands. An estimated 70 percent of all online purchases consist of online travel in all transportation and servicing forms supporting it, from flights to hotel bookings

and vehicle rentals, directly followed by a grossed total of 13 percent in products (Kalia, 2013).

The e-retailing industry benefits from many factors that traditional retailing suffer from lacking. Due to e-retailers not having any restrictions on location, time or size, profits are unseasonal, guaranteed and easily acclaimed, as the masses are realizing the effectiveness, accessibility and reliability e-retailing is finally accomplishing (Brewer and Brewer, 2006). Giant e-retailers opt for many techniques to help secure and increase their success and rates through smart and targeted marketing, which the social media has immensely contributed to, as people get specific tailored ads related to their search history, social media interests and needs. An estimated total of 75 percent of online buyers say the use social media for their online shopping. Offering fast, easy and, most importantly, free shipping is crucial, too. Free shipping is a huge contributor in the decision a customer makes online, as a grossed total of 55 percent of online shoppers say that free shipping is the most important checking-out step to them. However, rising e-retailers struggle with many barriers in their journey towards success, including expanses of the smart marketing techniques, shipping and return policies, customer service and technical support. The physical presence of a customer in a shop during making a purchase, however, still matters to almost 50 percent of shoppers today, a percentage that is expected to gradually decrease against the century's latest obsession with online shopping (G T., & Skey, A. 2015).

Wholesale:

Wholesaling means that the company or the electronic platform purchases large quantities of the product or the product directly from the manufacturers or distributors, stores it and then sells it to other companies. Often wholesalers can buy at good prices, enabling them to add profit margins on products and resell them to smaller merchants. Wholesale supply also enables customers to buy products at good prices (Markus, 2019).

According to Daneshgari, P., & Wilson, M. (2009), Advantages of wholesale:

- Saving money
- Building a network of suppliers

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- Becoming an expert
- Expanding with ease

Drop shipping:

According to Hayes, M., & Youderian, A. (2013), Drop shipping can be defined as a retail method in which the trader does not keep any commodity or product in its store, but rather displays a picture or statement on its own platform. When the customer makes a purchase, he buys the item from the third party.

The difference between the drop shipping system and the regular retail system is that the seller does not own the item and does not keep it in stock, but only purchases their needs from a third party, often a wholesaler or manufacturer to fulfil orders.

Advantages of drop shipping:

- Less capital required
- Easy to get started
- Low overhead
- Flexible location
- Wide selection of products
- Easiness of scaling

Disadvantages of drop shipping:

- Low margins
- Inventory issues
- Shipping complexities
- Supplier errors

Crowd-funding:

Crowd-funding is the finance of new ideas using capitals from individuals and taking place online. Collective finance benefits from easy access to financers or investors through social networking platforms or websites to bring together entrepreneurs. New networks of investors raise money from and outside the conventional circle of owners or relatives and project capitalists. The concept of the crowd-funding can be understood through the following Figure 2.1.

Crowd-funding sites such as *Kickstarter* and *Indiegogo* people from all around the world that are all hoping to invest in a project that is big. As of 2018, collective financing is often synonymous with *Kickstarter*, since it is the largest collective funding platform. *Kickstarter* was founded in 2009, and since then more than 130,000 projects have been efficiently backed in the group financing site, with more than 3.5 billion $. *Indiegogo* started as a collective funding site, initially focusing on fundraising for independent films, but began admitting projects from other categories in 2008, one year after it was launched (Micic, 2015).

Indiegogo is seen as a more flexible platform than *Kickstarter*, granting supporters the power to control whether they want fixed or flexible models.
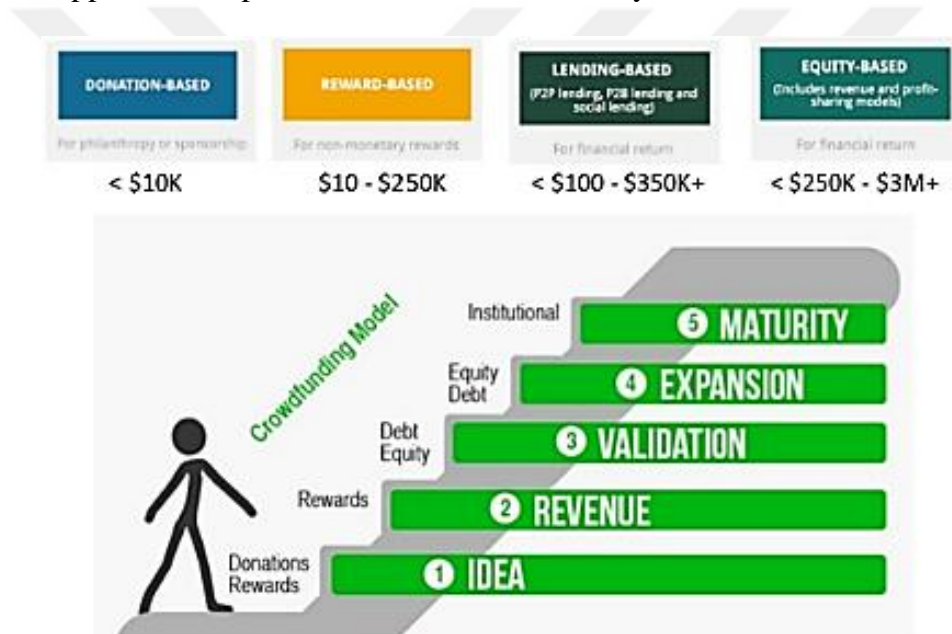
Figure 2.1: Crowdfunding Business Model

Source: NSFA Small Business Forum, 2016

Subscription:

The subscription sector is an important part of e-commerce. For example, in the Dropbox cloud storage service, more than 500 million $ were made in one year through subscriptions. Microsoft also converted some of its products from permanent license to subscription service, and Adobe did the same.

But the management of subscriptions operations is not easy, especially in the digital services; they contain many complexities, so there must be a strong system to deal with them, especially if the subscription includes packages and different categories with different details and is a monthly subscription or annual and whether the customer has the allowance to unsubscribe any time.

The following figure shows an example of a subscription status and the extent of detail in each selection process, although it is a one-platform subscription (Vodnik, 2013).
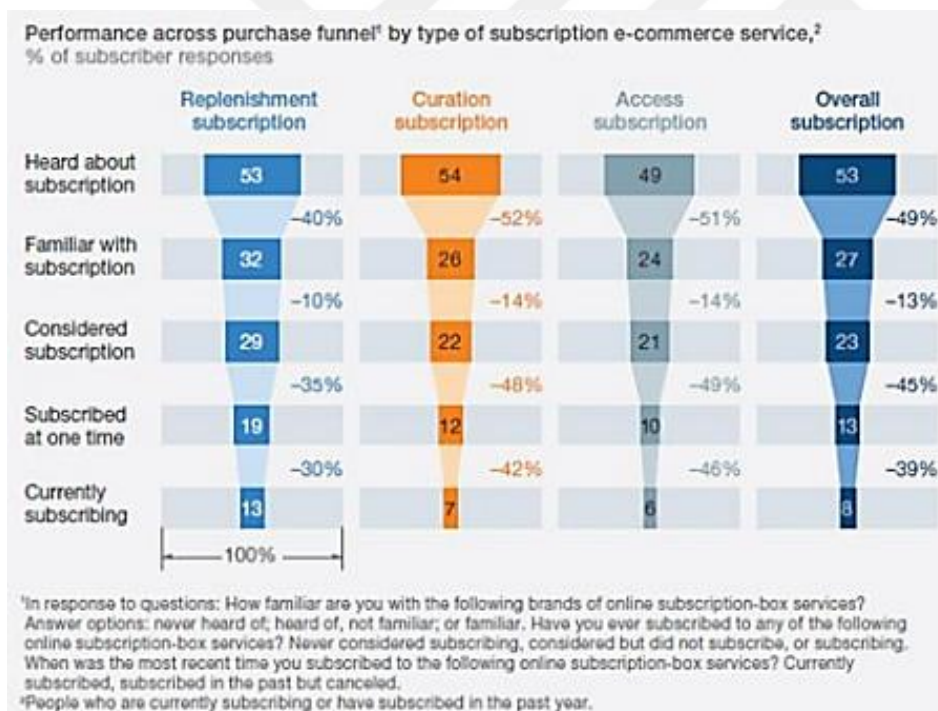
Figure 2.2: Performance Across Purchase Funnel by Type of Subscription E-commerce Service

Source: Mckinsey And Company, 2018

Digital products:

After the emergence of the internet, the concept of digital goods began to spread. Digital products deal with the same transactions of tangible products, but the process of transfer or circulation can be done through the online example of digital products, music, pictures, audio clips, electronic books, news, articles and many more (Becker, 2007).

In electronic commerce, digital products are a general term used to describe any goods that are stored, delivered and used in electronic form, which are electronically shipped to the consumer through e-mail or downloaded from the internet.

The method of buying digital goods differs from conventional goods. In digital goods, the consumer often purchases the product and then the seller provides a code to their e-mail or provides a secure link through which the item can be downloaded (Beal, 2019).

Services:

Electronic services are defined as any services that can be provided from electronic platforms, whether in the B2C or B2B sectors, and can also be defined as:

"Any asset that is made available via the internet to drive revenue streams or create new efficiencies" (Piccinelli and Stammers, 2002).

This process consists of two parties: the first is the service provider, and the second is the user. It is then sent via electronic means, such as electronic services, banks, libraries, publishing, airline tickets, e-government, information and GPS services (Scupola, 2009).

Recently, many forms of electronic services such as booking rooms, renting cars, and others have also appeared.

2.2.1.4 Product information management for e-commerce

The product information management system is considered one of the most substantial systems in e-commerce, as it collects the data of the products from several places, then compiles and synchronizes it in one place. This can be shown in the following Figure2.3:

The PIM Input/Output Product Data Pipeline
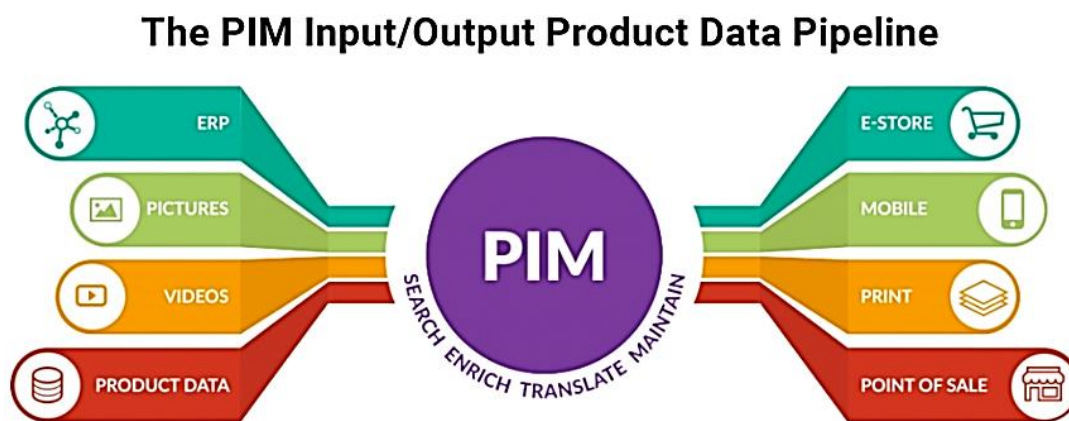
Figure 2.3: Product Information Management

Source: Akeneo.Com, 2017

Elements of product information management:

- ERP
- Warehouse and POS
- Product data
- Procurement
- Product suppliers
- Translation agencies
- Rich media
- Digital customer, third-party and internal channels
- Marketplaces
- Localized website and mobile stores

The PIM system can provide all product information to all stakeholders, from internal business to suppliers, manufacturers, wholesalers and customers.

Some shop owners and sites' mangers may think they ought to have thousands of products to run the product information management system, but even if the number of products is limited, the system is important, as they may have a range of variables and disciplines, especially if the platform has a desire to expand internationally (Lui, 2017).

The most important advantages of the PIM system:

- Information
- Consistency

- Precision
- Cost savings from improved logistics

2.2.1.5 Unique features of e-commerce

E-commerce differs from traditional commerce with a variety of unique and distinctive characteristics. Particularly the most important of which are: ubiquity, global reach, universal standards, interactivity, richness, information customization, density, and social technology (Laudon and Traver, 2014). The aforementioned is shown in the following Figure 2.4:
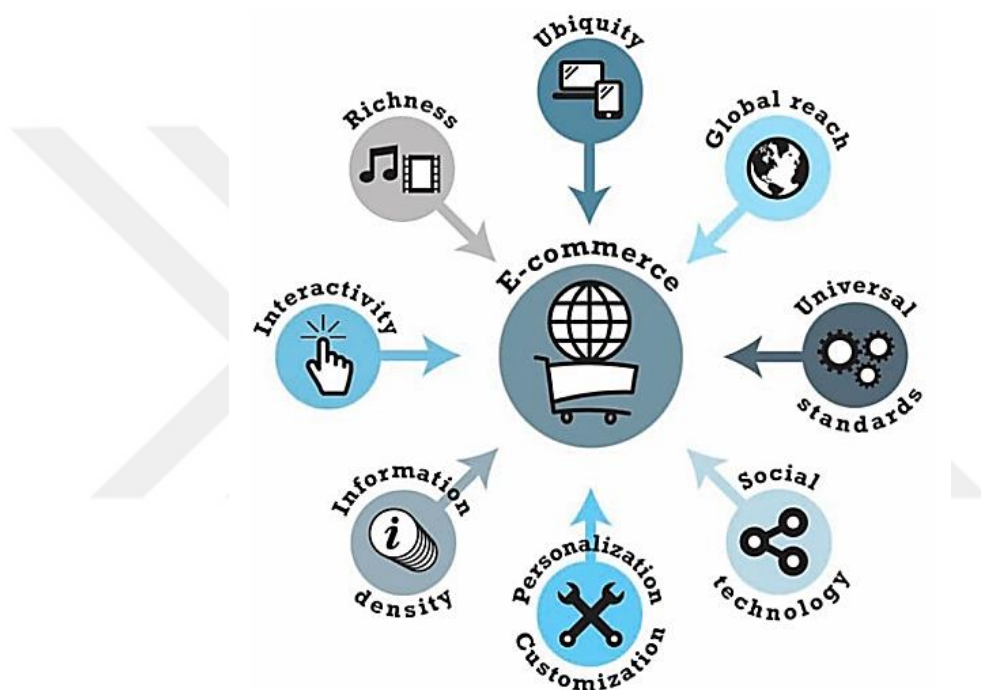
Figure 2.4: Unique Features of E-commerce

Source: WordPress, 2014

- Ubiquity:

Being present everywhere, since the advent of the internet and its users is in a state of rapid growth, which increased with online shopping. Internet can be used and reached anywhere and through many devices at relatively low prices, making it a suitable place to trade through (Hasman, 2006).

- Global reach:

This means the transition from the traditional small or pre-internet market to the emergence of the largest cross-border market. This can create a new market for various products and goods anywhere around the world, and therefore reach many customers (Fahey, 2016).

- Universal standards:

The internet and its global reach made it easy to access information and prices quickly. For instance, if you want to buy a computer, all you must do is write the specifications you want and start searching on the net, and all the results related to your interest will show prices, specifications of the stores, etc (Jamali, Karam and Blowfield, 2017).

- Social technology:

The emergence of social technology represented in social networking sites such as Facebook, Twitter, Instagram and others has had a great impact. All these sites are not limited to entertainment, but the main role of these sites is to collect information, data and preferences for customers. This creates a chance for companies and manufacturers to develop their products to Customers' desires and needs, and e-commerce sites have increased their efficiency in targeting the right customers for the goods they have (Braun, 2014).

- Personalization customization:

The intense competition between companies and manufacturers has made them look for new features to be unique, and electronic commerce has made this easy. In addition to getting the product you require on time; you can also personalize your product. This is evident in many e-commerce platforms, for example, clothing factories that allow you to choose the color of the item you want, and in case you want to add specific designs or writings, you can do it easily, which gives a special and distinctive character to your purchases (Mitchell and Piller, 2009).

- Information density:

The fact that hold the pricing policy on the platforms has an effective role opposite, you can now easily know the prices of competitors, also the costs of

delivery and services provided to the customer, you can use that information during the pricing or offering and services to customers (Yanushkevich, 2013).

- Interactivity:

The interaction is a great advantage on e-commerce platforms, and the quality of interaction and communication is one of the criteria of e-commerce sites. Also, the service or the product can be easily evaluated. For example, Amazon allows you to evaluate the item and the vendor. You must decide if the quality is appropriate, the price is fair, the shipping is fast and whether the product is good or not (Van Dijk, 2005).

- Richness:

This means that you can use the appropriate means of advertising for you, easily and effectively. This can be learnt through social networking sites. It is now easy to know your interests and preferences, so advertisers can display the right ads for you, be it photos, videos or voices and with your interests, choices and needs (Gray and Elliott, 2009).

Therefore, the aforementioned features have significantly made e-commerce a method aimed for by business owners.

2.2.2 Customer satisfaction

Understanding operators influencing customer satisfaction could be considered as the fundamental principle of this research work (Kotler, 2013). defined customer satisfaction as how to meet customer expectations, which in turn means meeting their needs.

Customer satisfaction can also be described as a process that begins by meeting customer expectations and ends with gaining experience. However, the client's assessment of the service and its satisfaction is very personal. Customer expectations can be greatly influenced by different internal and external factors, and the higher the expectations of customers, the more difficult it becomes to meet and achieve their needs (Zeithaml, 2010).

As regards consumer satisfaction as a term, recent studies have defined it as a brief emotional response of varying intensity with respect to a concentration

(product, expectations, consumption experiences, etc.) and occurring at a given time (after selection, after consumption) (Bozinov and Roth, 1989).

The ratings of the consumer experience can be expressed in the form of behavior, opinions, impressions, preferences, positioning, level of awareness, perceptions, loyalty, and level of requirements as identified by (Patwardhan, 2011).

Also, it is believed that customers have always been superb marketers for organizations. Products and services that are below expectations lead to disappointment among customers, and the exact opposite in case of the provision of good products and services. Thus (Parker and Matthews, 2001), found that customers frequently try to build an equation that includes their needs, desires, expectations, and perceived assessment.

Customer satisfaction is a measure of the organization's performance. The more the service or the product provided is compatible with the customer's expectations, the better results the institutions could obtain. Failure to meet customer expectations is a failure for the organization, many institutions are in the wrong position of not paying enough attention to raising customer satisfaction and getting a high level of customer satisfaction is a very competitive advantage. In the case of satisfied customers, this is a premium for the product or service provided by the organization (Niraj, 2003).

According to Cochran, C. (2003). Three customer satisfaction facts should be considered:

- *Customer satisfaction is the ultimate goal.* There is no maximum limit for the achievement of satisfaction with customers compete in it. Therefore, profits and revenue can be considered the result of customer satisfaction.

- *Customer satisfaction is an investment.* Customer satisfaction is a long-term business, which means that its results cannot be obtained in a short time. It is very important to understand the needs of customers and therefore this sector is very important for the institution to invest in and be very clear during the budget planning.

- *Everyone is involved in customer satisfaction* All employees of the organization or company must be fully informed of all rules and laws related to customer satisfaction. Prior to this, managers must work on

rooting, honoring and following the level of customer satisfaction, and making sure that things are going well and responsibly.

There are a lot of tools and methods that can help the organization or company follow the process of customer satisfaction which can be summarized in call reports, field reports, comment cards, complaint systems and quantitative customer surveys.

There are 15 key elements that influence "customer satisfaction" as in the following Figure 2.5:
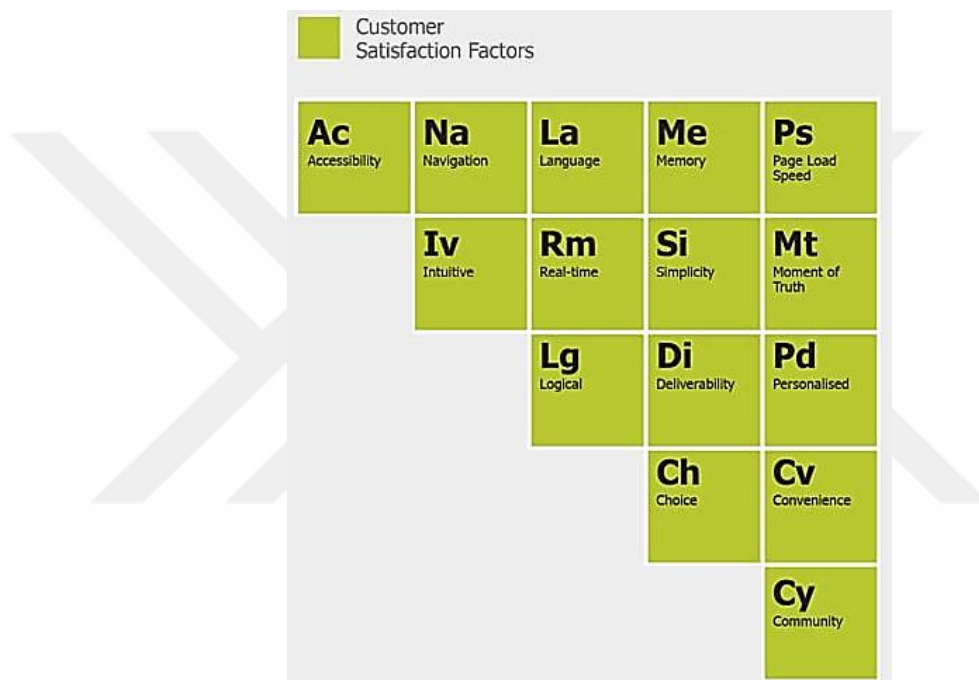
Figure 2.5: Customer Satisfaction Factors

- Accessibility: Easy access to your platform as well as access to the services and products easily, efficiently and conveniently, all while considering, accepting and responding to inquiries and encouraging visitors to make easy and light buying decisions. Accessibility it relates to how make sites and platforms accessible to users or everyone, Make the site clearer and easier to use (Slatin and Rush, 2003).

- Navigation: Moving and browsing in your store should be relatively easy. This includes assisting customers who want a particular product by adding active

search tools for keywords, as well as serviceable filters and innovating solutions that provide guidance for uncertain shoppers to assist them identify relevant products. Navigation consider the first step to create a platform structure, including information and the search system, navigation is One of the most important elements to achieve customer satisfaction while browsing the site (Pérez-Montoro and Codina, 2016).

- Page load speed: the quicker the site loads, the more satisfied visitors will be. If pages do not load at lightning speed, customers will be made to believe your store is unreliable, especially with making online purchases using credit cards, all of which leads to your site being unreliable. This relates to the software design of the site and the algorithms used, Also the site is compatible with search engines, and rete of site and page load, all this can be called site performance and efficiency, and this has affected customer satisfaction (King, 2008).

- Language: Talking to customers in their preferred language is essential for a business' success. More than half of the customers will choose not to purchase a product if the information provided is not in their language. However, language does not apply merely on demographics, but also on how some terms relate to audiences which integrates into businesses success. Employ an easy-to-use language and avoid terms that can cause confusion and deny the opportunity to communicate on a personally specific level. More than one language increases site attractiveness and make it more understanding and it must be simple and easy to understand (Aykin, 2009).

- Memory: Customers feel discouraged if it is required for them to reiterate themselves as it is more convenient for them to switch from one tab to another expecting their data and information to follow suit. They do not want to enter the same details again and again regardless of the circuit they interact with. Memory is also remembering the needs of customers and avoiding trying to sell products that are of no interest to customers, which leads to an unpleasant online shopping experience (Wallace, 2001).

- Personalization: This happens by personalizing your experience and sharing the right and timely content with the right customers, enabling

interactions to take place faster, easier and more efficient for customers, which increases customer satisfaction and the likelihood of repeated visits.

Personalization Depends heavily on the intelligence of the system of the website, and the reaction to the user (Karat, Blom, and Karat, 2006).

- Convenience: Convenience is a fundamental component in a favorable experience for customers. It affects how customers make decisions about what to buy, which services to employ, where to go, and with whom to participate. If perceived comfort is low, customers will see interaction as a business. If they are struggling in dealing with any of the above areas, they are likely to choose going somewhere else (Rosenbloom, 2012).

- Intuition: Customers appreciate the companies that really understands them. Some platforms simply have good intuition or a "sixth sense". They are active in anticipating the needs and emotions of customers. Platforms that understand their customers' needs before they do themselves or solve a problem before customers know its existence are be able to innovate better, more appropriate experiences and a relationship that is based to trust (Lim, 2014).

- - Real-time: To engage with the audience, think about how the advantage of real-time experiences could be taken; it is all about appearing when customers really need you. The importance of real-time interactions is growing, as it is now a necessity for the today's consumers. In short, real-time decisions and replies are being expected (Salmons, 2009).

- Simplicity: Making the process as simple as possible is one of the easiest ways of earning a customer's trust. You need to eliminate the complexity of decision-making by providing advice and support to customers throughout their e-commercial journey in your platform (Cristol and Sealey, 2001).

- Logic: To turn customers who are reasonably satisfied into emotionally satisfied customers, you must provide customers with reasonable components to engage with you. This means understanding what they expect and meeting or exceeding it (Beyer, 2014).

- Deliverability: According to the Consultancy report, 48% of customers are not willing to wait more than five days for most of their purchases, while 23%

say they are willing to wait for eight days or more. Delivery time affects purchase decisions and plays a great role in customer satisfaction (Sue and Ritter, 2012).

- Choice: The more options you can provide to customers during the purchase process, the more chances you have of winning them over as frequent visitors. However, when offering options, make sure that customers are supported and enabled to see the right choice for them (Peterson, 2005).

- Community: Customers conduct more and more research online before making a purchase. It is important to consider the community around products and services. Even if a customer does not have an active role in building platform, this so-called building is conducted and based on customers' influence through communities, social media means and reviews (Kraut et al, 2012).

- Moment of truth: Finally, "the moment of truth" determines the moments of collapse in the client's journey, affecting the chances you have of a customer's actual completion of their purchase, task or interaction. If things go on at these specified moments, the consumer is more likely to leave the interaction incomplete and will eventually look somewhere else (Kaushik, 2007).

Customer satisfaction is a key determinant of a market's success (Khristianto et al, 2012). Good marketing does not solely include the four Ps (price, product, promotion, place), but is also both customer and market oriented. Identifying and meet customer requirements at the same time are considered the best tools to improve customer satisfaction levels.

Online shopping and e-commerce sites in Egypt have been growing rapidly in recent years. As a result, attention is paid to factors influencing customer satisfaction as an important and necessary factor in the creation and design of any e-commerce site.

2.3 Empirical past studies

The following is some of the relevant studies, which addresses customer satisfaction and affecting variables on it:

2.3.1 Prior studies for the conceptualization of customer satisfaction

The origin of scientific interest in customer satisfaction could be traced in studies, regarding consumer behavior as an independent field of study in the 1950s and its establishment in the 1960s, a whole different era of satisfaction. In classical consumer behavior's patterns, the importance of satisfaction in consumption processes was recognized after consumer buying activities (Howard and Sheth, 1969). Several classic studies of satisfaction were launched in the same period.

The interest customer satisfaction was introduced ten years later when (Day, 1977) and his colleagues did research studies just to understand the concept of customer satisfaction. Since then, many researchers have investigated and understood the concept of customer satisfaction.

Customer satisfaction can be integrated as the degree to which the customer is satisfied with a product or commodity they have purchased, and whether they desire to repeat this process or not. Therefore, organizations are developing their products and services to reach this point. This applies to organizations operating in the e-commerce sector as well.

A study by Mainspring and (Bain and Company, 2003) found that the average customer must shop at least four times in an online platform before the store can generate profits from that customer. It is therefore substantial for online store owners to properly integrate consumer's needs and preferences in order to maintain frequent purchases.

In the study by (Oliver, 1997), customer satisfaction is regarded as a valuative judgment. Then came (Parker and Matthews, 2001), which sees that the process of realization of value cause an emotional reaction and called customer satisfaction.

According to research of (Devaraj and Kohli, 2002), customer satisfaction is the key determinant and component of consumer preferences of e-commerce platforms. Therefore, in order to obtain a competitive advantage, the e-commerce site must provide an added advantage to the customer and take the customer's satisfaction into consideration as an important and essential criterion for the continuation of the purchase process.

(Shankar et al, 2003) and others conducted researches on the level of customer satisfaction in electronic platforms as well as normal organizations, and there were no significant differences between them. The sole difference was in the level of customer loyalty, as it is greater with electronic platforms. There is a direct relationship between customer satisfaction and loyalty levels; the higher the customer satisfaction levels, the more loyal to the platform or organization customers become.

(Gupta and Zeithaml, 2006) also tracked the influencing factors which had a positive effect on the level of customer satisfaction, as well as on the financial performance of the institutions, and identified five important ones, including customer relationship management, value-added services, availability of products, ambience and the variety offered.

According to the study Hill and Alexander conducted (2017), it is believed that customer satisfaction and loyalty has become very important for any organization, and is the key to successful operations for any organization at any given size, starting with awareness of quality, customer service and many more elements.

2.3.2 Prior literature of e-commerce customer satisfaction

Several researchers have conducted several studies on customer satisfaction in the e-commerce sector to explore the factors that influence this, in order to push the e-commerce sector to evolve, spread and grow. The following studies refer to different models of customer satisfaction and the factors influencing it.

Both (Molla and Licker, 2001) presented a model that was implemented to determine how successful e-commerce sites are. This model includes six operators that are believed to affect customer satisfaction on e-commerce sites, including information and system quality, trust, usability, support and service. The quality of the system includes performance, reliability, ease of use, system accuracy. Quality of content refers to display of e-commercial services. Trust is based on security and privacy issues in the e-commerce system and use is the way customers are able to view and interact with the system's output. In addition to these results, it was indicated that customer's reliance on e-commerce is the key contributor that allows all of the rest factors to exist, as they are based on it.

According to (Rodgers, et al 2005), a study of some e-commerce platform clients concluded that customer satisfaction can be classified into the following three important and fundamental factors:

- Information quality: Informative-ness and entertainment
- Service quality: Tangibility, reliability, responsiveness, assurance and empathy
- System quality: Interactivity and access

There is a research for (Lin, 2007) which indicates that the quality of the e-commerce site in terms of design and information provided in it is a very important factor to increase customer satisfaction, as well as interaction on these sites, as it has a significant role in increasing customer loyalty and frequency, as well as security and privacy factors.

According to the research of (Eid, 2011) in KSA, the most important operators influencing customer satisfaction levels were user interface and quality of information, accompanied by the security and privacy standards.

According to the study of (Hila and Cheng, 2014) in Malaysia, the results reached the site design, security, quality of information and service. Also, Customer satisfaction was the main driver of increasing loyalty.

The study of (Irintage, 2018) in Iran, which was entitled "Factors influencing customer satisfaction level in an e-commerce platform: a case study analysis of Digikala in Iran" and the breakdown of a questionnaire by more than 400 customers of one of the most preferred sites of electronic commerce in Iran concluded that there are six important factors: website design, information quality, website usability, order fulfilment quality, security and privacy and finally trust.

Through all of the aforementioned research conclusions, it is clear that the success of any e-commercial platform is a result of the establishment and development of the site, accompanied with other key factors that influence the success rates of any business, be it e-commercial or not.

3. A CASE STUDY TO DETERMINE THE OPERATORS INFLUENCING CUSTOMER SATISFACTION LEVELS IN AN E-COMMERCE PLATFORM

3.1 Conceptual Framework and Hypotheses Formulation

3.1.1 Introduction

This chapter aims at discussing the operators associated with this study to form hypotheses related to it according to the research questions and literary reviews, then develops a research framework adapted from the study accordingly, which serves as a model for customer satisfaction in Egypt's two largest e-commerce sites, Souq.com and Jumia.

3.1.2 Interpretations of variables

This study examines six independent and one dependent variables. The dependent variable of this study is customer satisfaction. The following are interpretations for each independent variable:

3.1.2.1 Trust

"Trust is a term with many meanings" (Williamson, 1993). In fact, it is impossible to detect a static and universal concept of trust based on the daily use of the term (McKnight and Chervany, 1996).

Trust can is said to be a fickle concept; difficult to obtain and easy to lose. It is impossible to build a list of secure ways of building confidence. The importance of trust in the real world is evident, but it holds great importance in the electronic commerce sector, without which it is impossible to work.

3.1.2.2 Website design

The design of the website means the planning, creation and updating of the site. The design of the website also includes the information structure, user interface, navigational environment, color and contrast, fonts and photographs, as well as the design of symbols and all other elements. Web design is often viewed as the

visible side only, but the truth is that there are other aspects, such as the usability of the site, the working environment, planning traditions, user habits, mobility and all the means that simplify information faster (Das, 2018).

3.1.2.3 Information quality

One of the main reasons of the low quality of data and information is the inability to treat such information as a tool that acts as an operator leading to customer's satisfaction (Cipolla-Ficarra, 2014). Reaching a right establishment in the information quality requires the presence of a team specialized, dedicated and well-aware of the process of employing and obtaining information of decent qualities that collaborates in raising customer satisfaction's levels (Eppler, 2013).

3.1.2.4 Order fulfilment quality

The process of order fulfilment must be limited by specific procedures. There must be continuous coordination and communication between the platform and the client to reach the optimal situation. For example, the customer is informed that the request is in the store as well as enough information about it (Vervest and Dunn, 2012). We can define order fulfilment as the process that starts from receiving the purchase order from the customer, forwarding it to the operating team in order to start fulfilling it, either through the platform's aforementioned team or through forwarding it to third parties (Lambert, 2008).

3.1.2.5 Security and privacy

The relationship between privacy and security control is largely based on regulatory and legislative requirements. It was the law, not labor ethics, economics or technological progress that was the main link between individual privacy and information security (Axelrod et al, 2009). Privacy and security are the most important factors to build confidence in electronic commerce customers; privacy is a right and a proficiency to be exercised orderly (Jennings and Fena, 2003).

3.1.2.6 Payment methods

Many payment methods have emerged but are not viable, such as Visa Cash, which are no longer in use in the USA, but there are new systems that are

constantly being introduced and used, such as MasterCard, PayPal and pre-paid Visa cards. There is also a significant increase in the use of these systems, which are supported by a specific legal structure, some of which are by agreement and by unspecified or multiple laws (Miller, 2007). This process includes a variety of procedures and policies, as well as tools and devices to protect the systems and processes that are processed, stored and transported. Payment and safety are one of the most important challenges facing the e-commerce sector (Hu et al, 2005).

3.1.3 Research framework and hypotheses

Hypothesis is a preliminary demonstration that explains a collection of facts and can be examined through additional investigation. In accordance with the theoretical and practical findings of previous studies, the framework of adaptive research was built to help us identify the influential factors better and provide an optimal relation between all of the operators. Confidence as a key variable is engaging virtual economic activity among online shopping customers. Based on the conclusions, six hypotheses are created to examine the impact of each variable on customer satisfaction in two of the most important B2C e-commercial platforms in Egypt: Souq.com and Jumia.

3.1.3.1 Trust

Trust in e-commerce is unquestionable, as it is the most important aspect of online shopping. Products, platforms and organizations fail due to lacking and failing to obtain trust in markets. Trust and confidence are quite different in the world of ecommerce, as trust is usually built upon risk assessment, while confidence is upon familiarity. Products become relied upon when both confidence and trust are achieved, which is an advanced level not all businesses achieve, including e-commercial ones. Best-selling products online include music, books, and software and hardware computer systems, which are all products that are easy to be bought, though not so online, as people still fear giving banking information online due to fraud, hacking and other technical issues that occur on a regular basis. Laws and policies should be implemented by governments to prevent identity theft and fraud, among other technical issues that may never be fully controlled (Karake-Shalhoub, 2002).

Based on the observations of Jarvenpaa, people in *individualistic countries* are more likely to trust impersonal e-commercial sites than those from *collectivist* countries, regardless of the site's design, accessibility, usability, etc. In another study, it was obtained that trust was majorly influenced by the size and reputation of a certain company or seller. Size, for instance, leads to more trust by businesses, which in turn leads to more trust by customers, due to the major seller's ability to meet its obligations. Furthermore, a large seller is more resourced, more competitive and more able to deliver customers' each and every need. On the other hand, large sellers are more likely to make larger investments, which in turn leads to greater losses in case of failure (Kumar, 2011). Thus, trust is an important driver of customer satisfaction that allows the first hypothesis of the study to be drawn accordingly:

H_1: trust of the e-store has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commercial platforms.

3.1.3.2 Website design and accessibility

Accessible design essentially evolves on two major aspects, the first one being the ensuring of graceful transformation, and the second one being understandable and navigable content. Graceful transformation is ensuring that the content remains intact, regardless of the presence of any barriers. To simplify this, designing a platform that relies on a certain technical operator, such as JavaScript or Flash should completely be avoided in order to widen audience's options and make it easier for them. Making an easily understood content is crucial too, as it consists of easy language, easy navigation and all-over easy usage of a platform (Hricko, 2003).

Being inclusive means, everyone should be able to easily use and navigate through an online shop without facing any issues that are related to oldness, disabilities, inexperience and so on. Inclusiveness also means overcoming geographical, literal and cultural boundaries all while designing a platform that is usable by everyone regardless of the aforementioned boundaries (Horton and Quesenbery, 2014). Therefore, the researcher proposes the second hypothesis as:

H_2: website design and accessibility have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

3.1.3.3 Information quality

Product information is a key operator in the prosperity of any e-commercial platform, as rich, specific and understandable descriptions make shopping experiences easier, and therefore increases the percentage of purchases made. Product information typically includes pricings, features and qualities of products. Improved information quality, when accomplished by effective search tools, makes it easier for customers to reach products, based on the descriptions of these products (Yokoo et al, 2008).

Online shopping sites' structures are wide and complex, making it hard for customers to find exactly what they want, as they drown in the sea of unnecessary, unorganized information in the databases of the vast majority of online shopping platforms. Surfing through this excess information in search of exactly what you want takes time spans many customers don't afford, which means that there will be no purchases made, and no purchasers wined over as frequent customers. To avoid falling in the trap of excess information, platforms should carefully consider the descriptions on products; smart, efficient and to-the-point descriptions that are neither short nor long are ideal for turning visitors into customers, and hopefully permanent ones, too (Sung et al, 2013). Thus, the third hypothesis is postulated as below:

H_3: product information quality has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

3.1.3.4 Order fulfilment quality

A perfect order fulfilment process actually starts the moment a customer views your platform or shop and ends with them receiving their orders in good condition and on time. Understanding that technology enables customers an unprecedented access to information about previous order fulfilments and reviews from other customers around the world who'd delightfully recommend or absolutely warn from making purchases through your platform cautions sellers and encourages them to pay close attention to their order fulfilment services.

Access to good quality information, fast, easy and sufficient ordering procedure, safe and diversified paying methods that takes in consideration all types of

customers, and finally fast, low in cost or even free shipping are all the contributors in building the ideal shopping platform.

Discussing order fulfilment naturally brings to minds the process of delivery. Delivery in e-commerce, however, is more than just the act of delivering orders on time, as it is also the ability to consistently provide excellent services and doing well in shortening ordering cycles, as well as reducing variability. Working with suppliers that are both reliable and efficient is a key contributor in this process, as well as involving customers in reducing the checkout times and improving service experiences. Live support and fast response to inquiries, as well as making an ideal post purchase experience for customers, from providing order-tracking services to taking care of delivery issues and delays is what differentiates an ideal seller from an ordinary one (CSCMP et al, 2013). And the fourth hypothesis hypothesized is as follows:

H4: order fulfilment quality has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

3.1.3.5 Security and privacy

Most researchers such as Van Slyke, C., et al. (2006). agree that the main issues raised in the field of electronic commerce are the issues of security and privacy. There are security threats for both electronic consumers and businesses, and this leads to both being cautious and fearful of information theft or abuse of privacy. However, these security problems are common in most companies, and not just in e-commercial ones (Information Resources Management Association, 2001).

All platforms operating in the electronic commerce sector must be concerned with the development of their own safety systems, especially in the environment of constant change, development and dynamism. This is done through the cooperation of different parties such as suppliers, distributors, customers and partners. The establishment of a secure system for e-commercial platforms is a continuous and repetitive process due to the drastic and continuous development of the e-commerce system. There is therefore a need for a revolutionary approach to the introduction of security policies and the design of their own strategies to guarantee that those requirements are compatible with security and privacy

policies in order to achieve satisfaction of customers and platforms (Jahankhani et al, 2008). The fifth hypothesis is developed as follows:

H_5: security and privacy have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commercial platforms.

3.1.3.6 Payment methods

The concept of an e-commercial platform is incomplete without considering payment methods; e-commercial platforms should provide several methods of payment. This increases customer growth and sales. PayPal is considered one of the most important electronic payment platforms, followed by many more methods, such as credit cards and Visas (Manzoor, 2010).

Electronic payment methods are the most important elements of electronic commerce, and they depend on a number of elements, including credit and debit cards. These include the last payment methods on a credit institution as the third confirmer, ensuring that the service provider will pay the amount due as long as the credit is within the credit limit of the user (Hu et al, 2005). According to the acclaimed points our sixth hypothesis can be:

H_6: payment methods have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

3.1.4 Research model

As drawn in Figure 3.1, which is essentially a research sample developed by the researcher, all the aforementioned six operators that are believed to be the structure of this research were included. A relation between customer satisfaction as a dependent variable and trust, website design and accessibility, product information quality, order fulfilment quality, security and privacy and payment methods as independent variables was shown.

This sample serves as a foundation for this study which will help analyze and interpret experimental results. The operational relationship will be examined in this research to provide an insight into its impact on the satisfaction level of Souq.com and Jumia customers. The variables that affect the level of B2C customer satisfaction in Egypt's e-commercial sites are as follows:
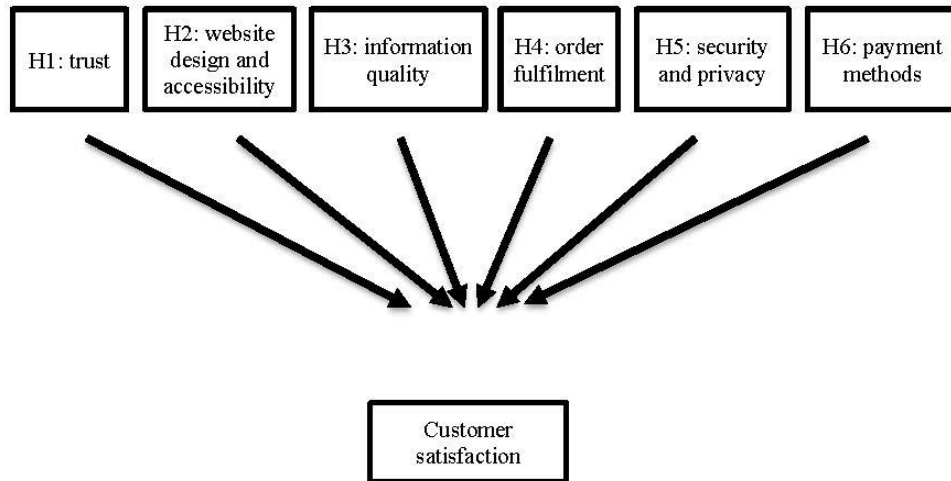
Figure 3.1: Research Model

3.2 Research Methodology

3.2.1 Introduction

Egyptian customs are eager to shop online. In addition to looking for best fares, easy payment methods and best quality products, their satisfaction requires many other operators in order to achieve purchase frequency. From the literal review, the researcher tried to discover those operators that are continuously affecting customer satisfaction which are: trust, website design and accessibility, product information quality, order fulfilment, security and privacy and payment methods. A better understanding of the mind-set of Souq.com and Jumia online shopping platforms was established.

This chapter presents and describes in detail the method and procedures that were used to conduct this study, including research design, population, sampling procedures and data collection.

3.2.2 Research design

This study attempts to discover the factors influencing the customers' satisfaction of e-commercial platforms in the B2C sector in Egypt (Aliaga and Gunderson, 2000) quantitatively researched this in order to explain the phenomena by collecting numerical data, which is then collected and analyzed using mathematical methods.

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The survey method was conducted by distributing an online survey in order to have a practical understanding of the customer's perspective, as well as gather information on all of the six operators. The search result was tested to see if the six hypotheses are supported, and the range of effect each variable has on the level of customer satisfaction. In this study, there are six independent variables including trust, website design and accessibility, product information quality, order fulfilment, security and privacy and payment methods as well, and one dependent variable, which is customer satisfaction.

The research stages can be presented by beginning with the point of the research, reviewing the previous relevant studies and establishing the study questions through which the conceptual framework of the study was designed. To test this model, a questionnaire was designed by using the previous study of (Irintage, 2018) to study and collect the required data from the sample group. In order to obtain answers to the study's questions, data was collected and analyzed. Finally, the results were interpreted, and the conclusion drawn.

3.2.3 Population

It was necessary to reach customers who relied on e-commercial platforms in shopping. Therefore, the study population consists of active customers with all levels of education, from both sexes, with different income levels who have previously experienced online shopping through Souq.com and Jumia platforms during the year 2018, so that they have an updated online shopping experience. According to *similar web*, the results for the last six months for both sites were as follows: Total visits of Souq.com 52.17M, Jumia 6.2M. The following Figure 3.2 analyses the customer visits of both platforms:
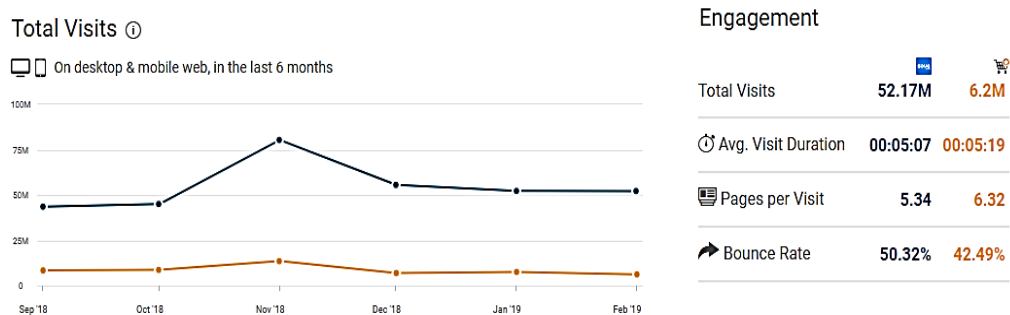
Figure 3.2: Traffic Overview Souq.com & Jumia
Source: Similarweb, 2019

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And in the traffic sources, direct sources and search sources occupied, and then the social media, the following Figure 3.3 shows the traffic source data:
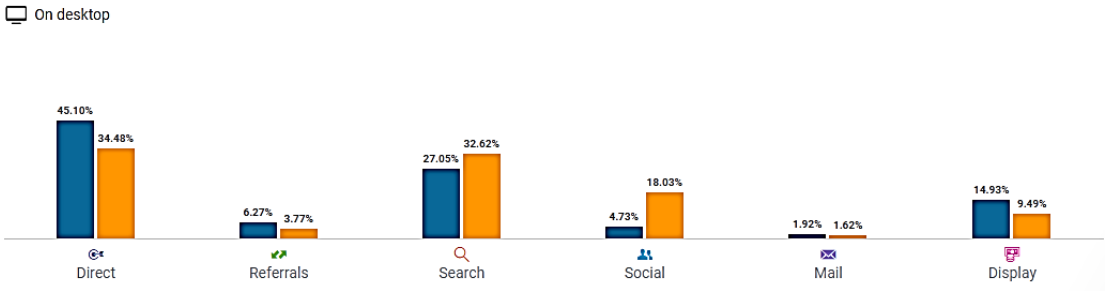
Figure 3.3: Traffic Sources Souq.com & Jumia

Source: Similarweb, 2019

Although both Souq.com.com and Jumia have been deployed in many countries, whether in Africa or the Middle East, the study is keen on investigating the numbers of active users in many different cities in Egypt, which gives an insight of e-commerce in Egypt.

3.2.4 Sampling procedure

This study was based on the use of non-random samples or so-called convenience samples. This type of sampling has special limits in terms of time and financial resources, and no possibilities for statistical generalization, but it is more practical, efficient and suitable for this type of research (Stephanie et al, 2015). Believed non-random samples are convenient and easy to use, creating samples that represent high populations and operating high representative samples of the population without having to generate a random number.

In order to calculate the sample size, Cochran's formula (1977) of sample-sizing is applied as follows:

- Calculate the sample size for infinite populations.

- Adjust the sample size to required population.

$S=Z^2*P*(1-P)/M^2$

S= simple size for infinite population

Z= Z score

P= population proportion (assumed to be 50% = 0.5)

M= margin of error

Z score is determined based on confidence level

Consider 95% confidence level then Z-score is 1.96, assume margin of error as 5%.

M=0.05

Z-score= 1.96

P=0.5

S= (Z-score)^2*p*(1-p)/ (margin of error)^2

S= (1.96)^2*0.5*(1-0.5)/ (0.05)^2

S= 3.8416*0.25/0.0025

S=384.16

So, sample size for infinite population is 384.16

Now, adjust the sample size to the required population, a 50M in this research, then use the following formula:

Sample size S= (S)/1+{(S-1)/population}

S= 384.16/1+ {(384.16-1)/50000000}

S= 384.16/1.00000076632

S=384.15

Therefore, sample size for 50M population as 384 this research gets 479 sample.

3.2.5 Instrumentation

In order to test the research framework and collect data to achieve the objectives of the search a questionnaire survey was conducted as it is easier in large size samples. Many questions can be asked on a topic, which gives the opportunity to develop a large number of variables as well as ease the process of analyzing the results (Cargan, 2007).

The survey was built to collect sufficient data and discover several aspects of the respondents' perception. In this study, the survey was created in English and later translated into Arabic because all potential participants were Egyptian.

The first part of the questionnaire consists of questions that aimed at collecting demographical data and the general profiles of the respondents, questioning gender, age, profession, education level, monthly income, internet usage frequency, online shopping experience and preferred e-commerce platform. The second part is the main part, consisting of 37 close-ended questions that sizes the levels of customer satisfaction and explores operators influencing this satisfaction.

The survey has a 5-point scale, ranging from 1 (strongly disagree), 2 (disagree), 3 (neutral), 4 (agree) and 5 (strongly agree). This type of close-ended questions enables respondents to easily and quickly finish with minimal typing requirements.

The subject of the thesis concerns internet users and their satisfaction with e-commerce platforms in Egypt, which means that the size of the target sample will be huge, so the research has been prepared and shared on different social media platforms in order to make the data collecting process easy and quick.

3.2.6 Data collection

Generally, there are two processes of data gathering, targeting primary and secondary data. Primary data relates to collecting data through related journals and articles, while secondary data is done through questionnaire divisions. This research was done through Secondary data.

Before conducting this research, the researcher was able to get an authorization from the admins of social media sites of the souq.com and Jumia platforms.

Participation in the questionnaire was required anonymously and strictly voluntary.

Participants were assured that the search tool was not a test, with questions that are not subject to true/ false answers, questionnaire was done through the social media pages of the mentioned sites in all Egyptian cities. The reason for making an online survey format is that the nature and effectiveness of the research takes places on the internet which therefore allows better evaluation of e-commerce customer's behavior (Hoffman and Novak, 1996).

The deadline for completion of the questionnaire was two months and the answers were not accepted after the target number is reached.

No information other than general demographical data was collected from participants, as anonymity and privacy were ensured to enable free and honest responses for best quality data, and therefore realistic and effective conclusions that opt to improve e-commercial experiences for both customers and platforms in Egypt.

3.2.7 Statistical techniques

For data analysis purposes the multiple regression method was followed and the statistical package for social science (SPSS 22) and analysis of a moment structures (AMOS) software were applied.

The analysis of this study's data covers inferential and descriptive statistics. The former includes several sectors, mainly normality of variables, reliability and validity analysis, (CFA) confirmatory factor analysis, Pearson Correlation Coefficient and multiple regression analysis for hypotheses testing. The latter was utilized to define the basic characteristics of the participants and determine the substantial characteristics of both the independent and independent variables.

3.2.8 Study's restrictions

Although utmost efforts and time were put in the conduction of this research, some restrictions and barriers were unavoidable. The researcher summarizes them in the following points:

- *Size of sample* was small due to the unfamiliarity with online shopping that is still very much existing among the Egyptian audience.

- *Number of operators* is believed by the researcher to be limited in order to match the limitation of the sample size.

- *Perspective of study*, as the research tested six operator's influence merely on customer satisfaction.

- *The Geographical restrict* that is the conduction of the questionnaire on customers in Egypt, which in turn restricts the result's formal application to a limited number of customers, which, however, could be generalized and further investigated in other regions.

- *Further discussion* of the practical suggestions presented in this research should be made, as the researcher's representation of the results of the questionnaire could have a primal effect on the results of the study.

3.3 Data Analysis

3.3.1 Introduction

This chapter includes the presentation of the analytics of the quantitative data obtained from 479 Jumia and Souq.com customers. The main objective at this point is to test previous theories regarding customer satisfaction through the analysis of the questionnaire survey results.

Various statistical analyses were composed including descriptions and summaries. The descriptive statistics were then summarized in the demographical analysis of the sample.

3.3.2 Descriptive statistics

3.3.2.1 Demographical characteristics of respondents

This part presents the descriptive analysis of the demographical data of the participants, including age, educational achievements, employment, monthly income, internet usage and online shopping experience.

Table 3.1: Demographic Profile of Respondents

Demographic profile	Valid	Frequency	Percentage (%)
Gender	Male	208	43.4%
	Female	271	56.6%
Age	Under 20	14	2.9%
	21-30	286	59.7%
	31-40	154	32.2%
	41-50	19	4.0%
	Over 50	6	1.3%
Education level	High school or under	21	4.4%
	High school	17	3.5%
	Bachelor	364	76.0%
	Postgraduate	70	14.6%
	Above	7	1.5%
Profession	Student	48	10.0%
	Employee	40	8.4%
	Private sector employee	160	33.4%
	Self-employed	90	18.8%
	Unemployed	103	21.5%
	Other	38	7.9%
Monthly income (EGP)	Less than 1000	81	16.9%
	1001 - 2000	96	20.0%
	2001 - 3000	74	15.4%
	3001 - 4000	46	9.6%
	More than 4000	182	38.0%
Internet usage	Hourly basis	159	33.2%

Table 3.1: (con) Demographic Profile of Respondents

Demographic profile	Valid	Frequency	Percentage (%)
frequency	Daily basis	298	62.2%
	more than 3 time a week	19	4.0%
	less than 3 time a week	3	.6%
Online shopping	Less than a year	172	35.9%
experience	1-3+ Years	170	35.5%
	4-6+ Years	87	18.2%
	7+ Years	50	10.4%
Mostly used device for	Laptop	92	19.2%
your online shopping	Smart phone	362	75.6%
	Tablet	19	4.0%
	Other	6	1.3%
Preferred online	Souq.com	242	50.5%
shopping platform	Jumia	83	17.3%
	Other	154	32.2%

*Note: The sample size (N) Is 470.

**Note: Percentage is subject to being less than 100% due to loss of data.

As described in Table 3.1, the majority of respondents were female (56.6%), whereas the number of male respondents was (43.4%). As for age, majority of participants were from 21 to 30 years old (59.7%), followed by the respondents whose age ranged from 31 to 40 (32.2%). As for the educational level, the respondents who had bachelor's degrees were the vast majority (76.0%) followed by postgraduate (14.6%). Private sector employees took over with (33.4%) followed by the unemployed with (21.5%). (38.0%) of the respondents have a monthly income of more than 4000 EGP, and (62.2%) of them use the internet every day. As for online shopping experience, the majority of the participants were less than a year (35.9%) followed by 1-3+ years (35.5%). Smart phones had the upper hand among other online shopping means with a percentage of (75.6%) followed by laptops (19.2%). Souq.com was the preferred platform (50.5%) followed by all other platforms (32.2%).

Due to the obtained data, the vast majority of the participants were young, educated, employed and experienced in online shopping.

3.3.2.2 Descriptive statistics of variables

The statistic's description of dependent and independent variables includes minimum and maximum values, mean, standard deviation, skewness and kutrosis. The values were then computed to identify the main characteristics of the obtained data in quantitative terms. All values of the survey were built on a 5-point Likert scale (1 = strongly agree, 2 = agree, 3 = neutral, 4 = disagree, and 5 = strongly disagree). Table 5.2 and 5.3 present the details of dependent and independent operators accordingly.

Table 3.2: Descriptive Statistics of Independent Variables

Variable	N	Minimum	Maximum	Mean	Std. deviation	Skewness	Kurtosis
Website design	479	9.00	38.00	18.69	4.65	.292	.933
Information quality	479	5.00	22.00	11.99	3.07	.032	.701
Order fulfilment quality	479	4.00	19.00	9.12	2.83	.192	-.107
Security and privacy	479	4.00	20.00	9.06	2.81	.607	1.264
Trust	479	4.00	20.00	9.09	2.75	.527	.839
Payment methods	479	4.00	18.00	8.51	2.47	.256	.465

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Table 3.3: Descriptive Statistics of Dependent Variables

Variable	N	Mini	Maxi	Mean	Std. deviation	Skewness	Kurtosis
Customer satisfaction	479	7.00	35.00	15.16	4.18	.371	1.586

Ranging from 4.00 to 38.00, all six IVs (website design, information quality, order fulfilment quality, security and privacy, trust and payment methods) and a single DV (customer satisfaction) have mean values that exceed average point, and all indicating remarkable positive trends. The related histograms of each variable are presented in appendix.

3.3.3 Inferential statistics

All of the collected data was tested using multiple regression analysis, comprising elements of (CFA: Confirmatory factor analysis) and linear regression to uncover the relationship between the considered factors and customer satisfaction through e-commerce.

3.3.3.1 Normality of variables

Some researchers and writers such as (Royston, 1982), (Shapiro and Wilk, 1965) believe that sample data should be distributed ordinarily. In this study, the (K-S) test (Kolmogorov-Smirnov) was applied to maintain the ordinariness of variables, including the dependent and independent ones.

H_0: Distribution is normal (Sig $\geq$ 0.05).

H_1: Distribution isn't normal (Sig < 0.05).

Table 3.4: One-sample Kolmogorov-smirnov Test

Variable	N	Kolmogorov-Smirnov Z	Asymp. Sig. (2-Tailed)
Website Design	479	1.003	.081
Information Quality	479	2.385	.124
Order Fulfilment Quality	479	1.421	.101
Security and Privacy	479	2.264	.139
Trust	479	2.281	.139
Payment Methods	479	2.129	.131
Customer Satisfaction	479	3.442	.200

According to Table 3.4, collected values of all operators are greater than 0.05, which concludes that all operators are ordinarily distributed and so H0 is accepted.

3.3.3.2 Reliability and validity analysis

Reliability and validity of the survey has to be estimated (Valli, 2010) before proceeding with the empirical analysis of the research. The probability of employing the collected information for additional analysis coinciding with the study's aims (Hair et al. 1998). The standard value of reliability is 0.7 (Hair et al, 1998; Pallant, 2007). The reliability coefficients, or Cronbach's alpha of every independent and dependent variable is depicted in Table 3.5 and 3.6.

Table 3.5: Reliability Measurement for Research Variables

Cronbach's alpha	Cronbach's alpha based on standardized items	N of Items
.890	.901	7

Table 3.6: Validity Measurement for Research Variables (Case Processing Summary)

	N	%
Cases Valid	479	100.0
Excluded[a]	0	.0
Total	479	100.0

A Listwise deletion based on all variables in the procedure

As indicated in the Table 3.5, the gross accuracy of the coefficients of all six IVs and DV are exceeding 0.70 ($\alpha > 0.70$) which is a normally an acceptable rate, and the average is 0.89 which points towards high consistency that matches the requirements of all the six operators.

According to the table in appendix, the vast majority of individual factor loadings are exceeding 0.50 as advised by (Sanzo et al. 2003). Generally, these findings emphasize the measurement items of the same construct, which means convergent validity is obtained.

Therefore, based on the discriminant and approximate validity test, construct validity was achieved in this research.

3.3.3.3 Confirmatory factor analysis (CFA)

Confirmatory factor analysis (CFA) is employed during the process of scale development in inspecting the latent structure of a test in context, as well as verifying a number of underlying dimensions regarding the factors at hand.

(CFA) was used in AMOS software to disinfect all of the six scales with the impartial of adding to their congeneric measurement properties and assessing the measurement style of the study (Anderson and Gerbing, 1988).

Based on the results of CFA, the values are as follows:

CMIN/DF is 2.407 and the value of goodness-of-fit-index (GFI) of model-fit measure is 0.854 which indicates the goodness-of-fit of the proposed model. The

value of parsimony normalized fit index (PNFI) is 0.769, Turcker-lewis index (TLI) is 0.901, and comparative fit index (CFI) is 0.911.

The value of (RMSEA) root mean square error of the approximation for the suggested framework was applied to define the suitable error approximates for the model prior to its admission.

All findings are shown in Table 3.7 as follows:

Table 3.7: Model Fit Summary

Indices	Value	Criteria	Result
CMIN/DF	2.407	<5	Good
P-value	1.000	>0.05	Good
Goodness-of-Fit Index (GFI)	0.854	>0.90	Mediocre
Tucker-Lewis Index (TLI)	0.901	>0.90	Good
Comparative Fit Index (CFI)	0.911	>0.90	Good
Root Mean Square Error of Approximation (RMSEA)	0.054	<0.08	Good
Parsimony Normed Fit Index (PNFI)	0.769	>0.50	Good

All the former results indicate a substantial correspondence between the data collected for the conduction of the study at hand.

The following appendix prove the validity and reliability of the sizing scales of this research, which allows further discussion regarding the theoretical relation between the independent operators (trust, website design, information quality, order fulfilment quality, security and privacy and also payment methods) and the dependent operator (customer satisfaction).
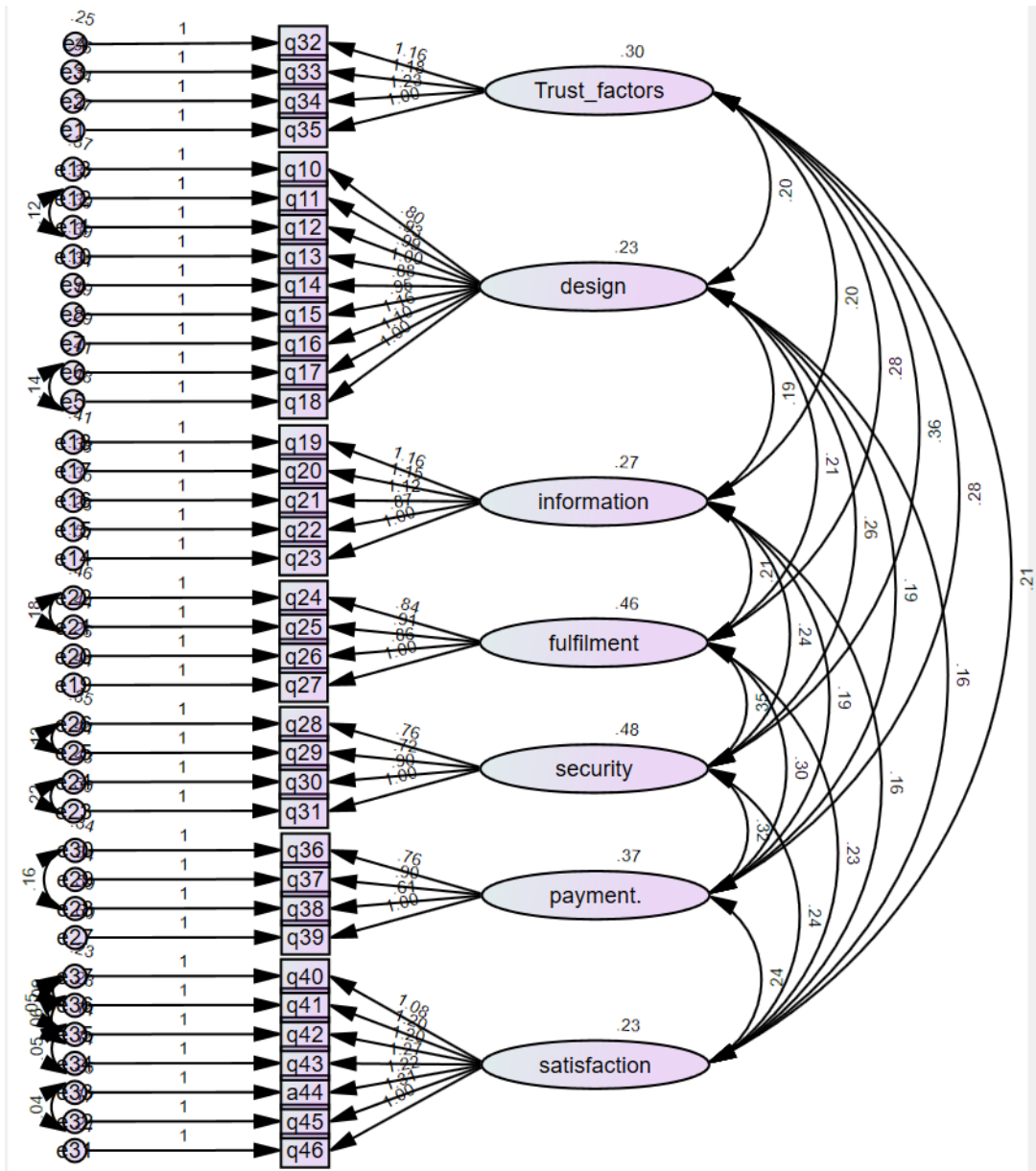
Figure 3.4: The Result of the CFA on Customer Satisfaction

3.3.3.4 Pearson correlation coefficient

Person correlation coefficient analysis proceeds to unshed correlations between variables of the study analyzing whether they exist or not, as well as their substantiality.

If the value of correlation coefficient is located between 0.10 and 0.29, it lacks strength. Ranging from 0.30 to 0.49 indicates being average and ranging from 0.50 to 1.0 means it is strong (Wong and Hiew, 2005).

A value of the correlation coefficient that is below 0.8 indicates non-existence of a correlation between the variables.

Table 3.8: Pearson's Correlation Coefficient Between the Research Variables

Variable	Website design	Information quality	Order fulfilment quality	Security and privacy	Trust	Payment	Customer satisfaction
Website Design	1	.632	.509	.612	.639	.481	.616
Information Quality	.632	1	.475	.500	.563	.403	.548
Order Fulfilment Quality	.509	.475	1	.515	.605	.509	.557
Security and Privacy	.612	.500	.515	1	.719	.476	.579
Trust	.639	.563	.605	.719	1	.608	.680
Payment	.481	.403	.509	.476	.608	1	.638
Customer Satisfaction	.616	.548	.557	.579	.680	.638	1

According to Table 3.8, all correlation coefficients among research operators were below the max point of 0.8. As shown, there is a remarkable relationship among the six operators (website design, information quality, order fulfilment quality, security and privacy, trust and payment methods) as the particular correlations are above 0.5 ($r > 0.5$). Additionally, the correlation between constructs were from 0.475 to 0.719 with no pair of measures above the criterion 0.9 and above (Hair et al, 1998).

Therefore, all six IVs have a strong influence on the DV, which indicates that increasing or decreasing in any of these six IVs causes the same effect on the level of the DV.

3.3.3.5 Multiple regression assumption test

In this research, multiple regression analysis was used to analyze the operators influencing customer satisfaction levels in Souq.com and Jumia e-commerce

platforms. These criteria were chosen due to its being widely viable to analyze a thesis in the business sector of a study (Cohen et al. 2013). The researcher applied an (SPSS 22) code in entering and computing the findings of the multiple regression for the study.

In this study there are six IVs (trust XI, website design X2, information quality X3, order fulfilment quality X4, security and privacy X5, payment methods X6) and one DV (customer satisfaction Y).

$$\hat{y} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \varepsilon \qquad (5.1)$$

All the data regarding the constants and variables of this equation could be found in the coefficients table at the end of this chapter.

a) Autocorrelation test:

Durbin - Watson test was applied to the measurement of the statistical independence of error (Table 3.9). Durbin - Watson is equal to 1.894, which does not exceed the accepted average of 1.5 to 2.5 (Norusis, 1995) which indicates no evidence of autocorrelation.

Table 3.9: Durbin - Watson Test for Autocorrelation

Model	R	R Square	Durbin - Watson
1	.774[a]	.594	1.894

a. Predictors: (constant), trust, security and privacy, website design, order fulfilment quality, payment methods, information quality.

b. Dependent variable: customer satisfaction.

b) Multicollinearity test

If the value of tolerance level is more than 0.1, multicollinearity is non-existent, and according to (Bate, P., & Robert, G. 2007) VIF must not exceed 10.

Table 3.10: Tolerance and VIF Test for Multicollinearity

Variable	Collinearity statistics	
	Tolerance	**VIF**
Website design	.446	2.241
Information quality	.547	1.827
Order fulfilment quality	.571	1.753
Security and privacy	.439	2.279
Trust	.333	3.007
Payment	.591	1.692

Built on collinearity statistics that are shown in Table 3.10, tolerance values of all IVs are bigger than 0.1:

Website design (0.446), information quality (.547), order fulfilment quality (.571), security and privacy (.439), trust (.333), and payment methods (.591). The VIF values for these variables are: Website design (2.241), information quality (1.827), order fulfilment quality (1.753), security and privacy (2.279), trust (3.007), and payment methods (1.692). This is an indication of nonexistence of multicollinearity.

c) R Squared

R square is the test of the obtained information's close fit to the regression line, ranging between 0 and 1. The more the values come close to 1, the more changeable the model becomes.

Table 3.11: Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.774[a]	.599	.594	2.66586	1.894

a. Predictors: (Constant), payment, information quality, security and privacy, order fulfilment quality, website design, trust.

b. DV: customer satisfaction.

d) ANOVA F-value and significant value

The estimation of the statistical variation among more than two independent means is obtained by (ANOVA) within which all details regarding levels of difference within a regression model is supplied. As stated by (Weisberg, 2005) the F-column provides a statistic for examining the thesis if a $\beta \neq 0$ contras the null hypothesis that is $\beta = 0$.

If all of the IVs do not have a substantial effect on a DV, the null hypothesis of analysis of variance (ANOVA) should be admitted.

Table 3.12: ANOVA[a]

Model	Sum of squares	df	Mean square	F	Sig.
1 Regression	5012.891	6	835.482	117.561	.000[b]
Residual	3354.411	472	7.107		
Total	8367.303	478			

a. Dependent variable: customer satisfaction

b. Predictors: (Constant), payment, information quality, security and privacy, order fulfilment quality, website design, trust.

According to the findings of Table 3.12, the analysis of variance (ANOVA) F-value is 117.561 with the considerable value of 0.001 is not exceeding 0.05.

Therefore, all of the six variables have substantial effects on customer satisfaction levels.

e) P-value

In order to indicate each of the six variable's role in customer satisfaction the P-value must be investigated. P-values that are not exceeding 0.05 indicate an IV that has a fundamental effect on a DV. According to the Table 3.13 P-values of the four variables are less than 0.05 and two of them greater than 0,05 which leads to concluding that all of them have an effect on customer satisfaction levels.

Table 3.13: Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients		
	B	std. error	beta	t	sig.
(Constant)	.913	.583		1.564	.118
Website Design	.150	.039	.167	3.838	.000
Information Quality	.164	.054	.121	3.060	.002
Order Fulfilment Quality	.143	.057	.097	2.512	.012
Security and Privacy	.105	.065	.070	1.600	.010
Trust	.330	.077	.217	4.295	.000
Payment	.496	.064	.294	7.754	.000

3.3.3.6 Results of multiple regression analysis

MRA was used in the provision of a coordination among dependent and independent variables as is presented in the hypothesized model. The substantiality of each variable in the study model was tested as follows:

From the experimental beta value of each of the variables in the Table 3.13 the best model of the satisfaction of the customers of Souq.com and Jumia e-commerce platforms could be outlined as follows:

yˆ $= 0.913 + 0.150X_1 + 0.164X_2 + 0.143X_3 + 0.105X_4 + 0.330X_5 + 0.496X_6$

The regression equitation above has established that all six variables in account be constant at zero, which makes customer satisfaction at 0.913. This essentially means the testing of hypothesis 1 to 6 as follows:

H_1: trust of the e-store has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

Results of the Table 3.13 show a noticeable positive relation among them (t-value = 4.295 and $p < 0.05$). The data also explains that a one standard deviation increase in Trust (5.2) will result in 0.217 standard deviations increase in customer satisfaction, so H1 is accepted.

H_2: website design and accessibility have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

For the second hypothesis, the relation between the two variables, namely website design and customer satisfaction were tested. According to Table 3.13, there is a clear affirmative relation between them (t-value = 3.838 and $p < 0.05$). Therefore, a one standard deviation growth in Website design will lead to 0.167 standard deviations increase in customer satisfaction. Therefore, H2 is accepted.

H_3: product information quality has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

Testing the third hypothesis of the research is to distinguish the existence of a relation between the two variables that are product information quality and customer satisfaction. Findings of Table 3.13 characterized a remarkable positive relation among them (t-value = 3.060 and $p < 0.05$). This essentially indicates the fact that a one standard deviation increase in product information quality implies a standard deviation increase of 0.121 in customer satisfaction. As a result, H3 is accepted.

H_4: order fulfilment quality has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

For testing the fourth hypothesis and identifying the relationship between the two variables order fulfilment quality and customer satisfaction, based on the results of Table 3.13 it was found that there is a significant positive relationship between them (t-value = 2.512 and $p < 0.05$). The data shows that a one standard deviation increase in order fulfilment quality will result to an increase of 0.097 standard deviations in customer satisfaction, so H4 is accepted.

H5: security and privacy have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

The fifth hypothesis regards an examination of a possible existence of a relation between security and privacy and customer satisfaction. Findings of Table 3.13 indicate a remarkable positive relation among them (t-value = 1.600 and $p < 0.05$). The data also indicates for a fact that a one standard deviation increase in security and privacy leads to a 0.070 standard deviation increase in customer satisfaction. As a result, H5 is accepted.

H6: payment methods have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.

The Table 3.13 presents a remarkable relation between payment methods and customer satisfaction as variables (t-value = 7.754 and $p < 0.05$). Therefore, a one standard deviation increase in payment methods must lead to a standard deviation increase of 0.294 in customer satisfaction. H6 is therefore accepted.

As aforementioned all hypotheses were approved, which leads the admittance of the study as a theoretical and practical model of the maintenance and improvement of customer satisfaction levels among Souq.com and Jumia customers.

The value of beta of standardized coefficients (see Table 3.13) leads to the conclusion that among the six variables that effects customer satisfaction, payment methods has the most significant effect with beta of (0.294), then came trust (0.217), website design (0.167), product information quality (0.121), order fulfilment quality (0.097), and security and privacy (0.070).

3.3.4 Summary of hypotheses results

The findings of hypotheses examining are shown in Table 3.14 as a result of SPSS testing, and further explanations will be discussed in the following chapter.

Based on Table 3.14, the correlation analysis indicates that all IVs including payment methods, order fulfilment quality, information quality, website design, security and privacy and trust are substantially related to customer satisfaction levels in Souq.com and Jumia e-commerce platforms in Egypt.

Table 3.14: Summary of Hypotheses Results

Hypotheses	Result
H_1: trust of the e-store has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.	Accepted
H_2: website design and accessibility have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.	Accepted
H_3: product information quality has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.	Accepted
H_4: order fulfilment quality has a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.	Accepted
H_5: security and privacy have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.	Accepted
H_6: payment methods have a positive effect on customer satisfaction levels with SOUQ.COM and JUMIA B2C e-commerce platforms.	Accepted

4. DISCUSSION AND CONCLUSION

This section focuses on the results of the study, including theoretical descriptions and analytical points in order to determine factors influencing customer satisfaction levels on Egypt's leading online shopping platforms using Souq.com and Jumia as the cases of the study (Kotler and Keller, 2006) provided a general definition of satisfaction in terms of customers, defining it as a person's happiness or disappointment feelings as a result to comparisons of results with expectations.

Upon this relevant definition we conclude that customer satisfactions rely on their expectations regarding products and services, which could possibly mean that the results of our conducted research using Jumia and Souq.com as case studies apply on other platforms as well.

The main tested factors influencing customer satisfaction levels include trust, product information quality, website design, privacy and security, order fulfilment quality and payment methods which were later tested in the questionnaire that was uploaded online in order to obtain sufficient information as to whether these factors have their expected effect.

According to the survey analysis using SPSS 22 and AMOS, female contributors had the upper hand, as well as the age group 21-30, bachelor degrees, self-employees, with monthly incomes that are above 4000 EGP, daily internet users and with an online shopping experience of less than a year using smartphones. Souq.com was the most frequently used platform between the two platforms.

Chart's results confirmed that the hypothesis of the study was indeed implied, and upon this result the conceptual model was supported.

Therefore, the researcher's efforts to obtain the elements were effective. Therefore, all six operators had a noticeable positive impact on customer satisfaction.

Based on their descending order payment method came first, followed by trust,

website design and accessibility, information quality, order fulfilment quality and security and privacy at last.

Assessment for each independent operator were put forward below.

Trust:

According to the results that places trust second among most affecting operators, the researcher suggests that trust levels directly affect customer satisfactory levels on both Souq.com and Jumia. This is due to the security issues related to transactions that are conducted online, which the Egyptian audience still finds to be hazardous in many ways. Therefore, the researcher believes that in order for a customer's satisfaction level to reach its peak, this customer must be trusting both the product and the structure and design of the platform itself. This conclusion is supported by several previous researches (Kumar, 2011; Ratnasingam 2003; Becker, 2007). Although trust came theoretically as the first and foremost affecting operator of all, the results of the survey show that it came second following payment methods. However, the researcher believes that the first operator is directly related to trust, as the inurement of the availability of satisfying payment methods generally leads to trust in a platform.

Website design:

A website design is one of the main originators of negative or positive impressions from customer's side. Coming third, website design and accessibility's inurement enables customers to shop smoothly, compare products, navigate through descriptions comfortab

ly and feel less insecure about making payments online. A website's main menu, frontal loaded page and searching tools must be carefully designed in order to win over customer's satisfaction (Lacka, Chan and Yip, 2014; Santiago et al, 2005; Lopuck, 2012).

Information quality:

Improvement in the quality of the information provided on products and services have been linked in various studies to the satisfaction of customers of all kinds and supported by the results of the conducted survey. Researches supporting this result include (Wang et al 2014).

Information quality include all information that is possibly collected by a customer during their shopping experience on a certain platform. This means that the provided information on products and services must be accurate, understandable, concise yet complete and overall satisfying. A customer should feel like they have obtained all the information needed on the product they are eying at the end of their surfing session in order for them to decide to actually buy it.

Clear and helpful information helps in the diminution of insecurities regarding the website wholly, and making payments on these products specifically, which in turn ensures repeated visits and recommendations from the satisfied customer, proving that information quality has an active role in improving trustful shopping experiences.

This study's findings regarding information quality importance matches those of the researchers (Liao et al, 2009; Al-Hakim, 2007; Gaol, 2012).

These studies found that detailed, precise and concise descriptions provided on products has a positive impact on customer satisfactory levels which in turn contributes to payment decisions.

Order fulfilment quality:

Results proof that order fulfilment quality and customer satisfaction are positively related for the customers of Jumia and Souq.com. The elements of order fulfilment quality on online shopping platforms vary depending on shipping and delivery speeds, condition of products upon delivery, packaging and post delivery services, thus making good communication and active collaboration between a certain platform and the shipping company it relies on essential, and choosing one should be in consideration to the platform's aims and vision regarding delivery services (Aror, 2017; Lee, 2016; Oodan et al, 2003) agree with this.

Security and privacy:

It is natural for privacy and security to be detrimental operators in the influencers of customer satisfaction levels among online shoppers due to the increase of fraud

and data loss cases that take place on the internet. Online platforms has to be aware of the constant battle between online criminals and the online crime combating industry as customers are now well aware of the risks that accompany making online payments and sharing personal data, and so the securement of a safe and constantly updated shopping platform is irreplaceable for the platform's success.

According to (Oodan et al, 2003; Ghosh, 2012; Garfinkel and Spafford, 2002; Vimercati et al, 2013) and due to the major influence privacy and security matters has on online shopping the UK has released the Online Shopping Protocol in 1995 free which was later followed by some European and Asian countries which is concluded by (Ludin and Chenge, 2014; Schaupp and Belanger, 2005).

Payment methods:

Coming first according to the questionnaire analysis, payment methods could possibly have the upper hand among other operators influencing customer satisfactory levels in Egypt as a whole. The provision of several and sufficient payment methods therefore must lead to higher levels of customer satisfaction amongst jumia and souq.com customers. However, a hardship in providing efficient and updated payment methods in Egypt exists due to the lack of the modern financial system's tools that are implemented in updated credit and online banking cards, which should be overcome in order to provide the best online shopping experience. Many researches support this conclusion, like (Madan, 2016; Khosrow-Pour, 2007; Kou, 2013).

As a conclusion, this thesis was conducted in order to obtain solid and clear influencers on online shoppers' satisfactory levels in Egypt by questioning JUMIA and SOUQ.COM customers as major online shopping platforms in the country and its surrounding region. Several approaches were made, including data collecting and social media questionnaire conduction. Based on the results, the researcher provides the following conclusion:

It is considered that the study has achieved its goals, as the six operators selected were theoretically and practically proven to have major influences on customers' satisfaction levels. The researcher hopes Egyptian upcoming and aspiring online shopping platform owners and inventors could employ these operators and take

them under consideration for setting up better online shopping platforms, increasing satisfactory levels among online shoppers in the region, making better profits and achieving upper levels among other online shopping in a market that is huge and thriving for better online shopping experiences.

As aforementioned, some studies have conclusions that may be partially or completely contradicting to the results of the study at hand, which the researcher believes to be completely natural when considering social, economic, demographical and technical differences between varying regions, and therefore the researcher urges aspiring online traders to carefully study the environment of the region at hand before making decisions regarding their strategies in attracting and keeping their customers.

Although all of the six operators were agreed on to be essential for a customer's satisfaction, payment options and trust were elected to be the most influencing operators of all.

There are administrative effects as well. In a country that could be considered as rising in the field of e-commerce, good investments in online shopping platforms that put customers and their satisfaction above all is the ultimate chance at achieving instant success, creating new job opportunities, obtaining a constant long-term growth, improving economics and much more.

It is agreed that researchers conduct their studies and researches for scientific reasons that are then employed by persons and organizations that could benefit from its results. The method followed in this research was effective and could or could not be so for other researches. However, further investigations in the operators influencing customer satisfaction could result in the findings of additional operators beside the six most influencing ones according to the researcher. The researcher also believes that entirely or partially different operators could be identified if studied in different demographical circumstances.

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APPENDICES

APPENDIX A: Questionnaire

 (English Version)

To whom it may concern

My name is Belal Elsayed and I am a postgraduate student majoring in MBA in Istanbul Aydin University, Turkey. This questionnaire is related to my master thesis upholding the topic: **OPERATORS INFLUENCING CUSTOMER SATISFACTION LEVELS IN AN E-COMMERCE PLATFORM: A CASE STUDY ON JUMIA AND SOUQ.COM IN EGYPT,** conducted in order to complete my thesis and collect sufficient data.

This questionnaire contains two parts: first includes several demographical questions, second includes questions conducted to help analyze six different variables influencing the level of satisfaction of the customers of SOUQ.COM and JUMIA B2C platforms. All the answers you make should be based on your shopping experiences: no right and/or wrong answers whatsoever. Questions are answered anonymously and treated with confidentiality for academic research purposes.

Your participation in the answering of this survey is highly and extremely appreciated and will be helpful in conducting a scientific research.

Kind regards,

Belal Mahmoud

Part 1: Demographic information

Directions: Please read the below and fill out the questionnaire.
1. Gender:

o Male

o Female

2. Age:
o Under 20
o 20-29
o 30-39

o 40-49

o Over 50

3. Education level:

o High School or under

o Diploma

o Associate Degree

o Bachelor

o Postgraduate or above

4. Profession:

o Student

o Employee

o Self-Employed

o Other

o Unemployed

5. Monthly income (EGP):

o Less than 1000

o 1001 - 2000

o 2001 - 3000

o 3001 - 4000

o More than 4000

6. Internet usage frequency (Smart phones, tablets, laptops, ...):

o Hourly basis

o Daily basis

o 3 times a week

o less than 3 times a week

7. Online shopping experience:

o Less than a year

o 1-3+ Years

o 4-6+ Years

o 7+ Years

8. Mostly used device for your online shopping:

o Laptop

o Smart phone

o Tablet

o Other

9- Preferred online shopping platform

o Souq.com

o Jumia

o Both

Part 2: satisfactory-related questions

Directions: Please read the following and choose the most appropriate number.

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1	2	3	4	5

Row	Website Design	1	2	3	4	5
1	The overall design of the website/s is welcoming and visually pleasing.					
2	The links between the pages are clear.					
3	The website/s is/are clearly structured.					
4	As I see the souq.com, Jumia website, I see a clear layout and precise searching tools.					
5	When interacting with the website/s, it provides me with tailored information (e.g. product recommendation).					
6	The website is easy to navigate and simple to use.					
7	In the process of purchase, it's easy to master the flow of online shopping.					
8	The website's links are problem free, accurate and pages load quickly.					
9	The website's pages don't freeze after I put in all my information.					

	Information Quality					
10	I am able to see specified and helpful descriptions on a product.					
11	The product's information in the website/s are regularly updated.					
12	The provided information about products and their features are correctly presented in the website/s.					
13	Texts and content of the provided information are easy to understand.					
14	It is easy to choose and compare products while shopping online.					
	Order Fulfilment Quality					
15	I have always received my orders exactly the way I ordered them.					
16	I have always received my orders in good shape and without malfunctions.					
17	The website keeps me updated on the delivery process.					
18	The website always delivers my orders exactly the time I was promised.					
	Security and Privacy					
19	Souq.com and/or Jumia website is safe, reliable, and won't share my information with third parties.					
20	The website/s is clear and notifies me at every operation.					
21	This website shows care in how it collects my personal information.					
22	Using this website does not affect my information's privacy.					

	Trust					
23	Based on my experience with this website in the past, I know it is an honest and trustworthy website.					
24	Based on my experience with this website in the past, I know it cares about its customers.					
25	Based on my experience with this website in the past, I know it is not opportunistic.					
26	I know that the website knows its market well and how to compete with its competitors.					
	Payment					
27	The website/s supports several payment methods.					
28	Electronical payment methods are highly secured and trusted.					
29	The website supports on-arrival payments.					
30	The website has a flexible and sufficient change/refund policy.					
	Customer Satisfaction					
31	In general, I'm satisfied with the design of the souq.com and/or jumia website.					
32	In general, I'm satisfied with the quality of the provided information in the website/s.					
33	In general, I'm satisfied with the usability of the souq.com and/or jumia website.					
34	In general, I'm satisfied with the quality of order fulfilment process of the souq.com/ jumia website.					
35	In general, I'm satisfied with the security and privacy of the souq.com/ jumia website.					
36	In general, I trust souq.com/ jumia website.					
37	In general, I'm satisfied with the payment methods and policies of the souq.com/ jumia website.					

Thank you for taking your time to complete this questionnaire.

APPENDIX B: Questionnaire

(Arabic version)

نسخة عربية

تحية طيبة وبعد ،

اسمي بلال السيد وأنا بصدد تحضير رسالة الماجستير في إدارة الأعمال في جامعة اسطنبول ايدن الكائنة في اسطنبول، تركيا. هذا الاستبيان متعلق بأطروحة الرسالة التي تحمل العنوان: **العوامل المؤثرة على مستويات رضى عملاء منصات التجارة الالكترونية: دراسة على عملاء سوق.كوم وجوميا في مصر**، المطروح لاستكمال الدراسة وتجميع المعلومات الكافية.

هذا الاستبيان يحوي قسمين، الأول يشمل أسئلة ديموغرافية متعددة، والثاني يشمل أسئلة طرحت بغرض المساعدة في تحليل ست عوامل من المتوقع أن تكون هي المؤثر الرئيسي على مستويات رضى عملاء المنصات الالكترونية "سوق.كوم وجوميا". جميع الأجوبة في هذا القسم يجب أن تكون بناء على تجاربكم التسوقية، وهي أجوبة غير محددة بإطار الخطأ أو الصواب. جميع الأسئلة طرحت لتتم الإجابة عنها مع عدم معرفة شخص المجيب، وليتم التعامل مع تلك الأجوبة بحرفية بغرض استكمال دراسة أكاديمية.

مشاركتكم في هذا الاستبيان سوف تساعد في استكمال بحث علمي،ويقدَر الباحث الوقت الذي تخصصه لملء هذا الاستبيان ولهذا فلكم كل الشكر والتقدير.

بلال

القسم الأول: المعلومات الديموغرافية
الإرشادات: اقرأ من فضلك الأسئلة التالية ثم اختر الإجابة المناسبة:
1- الجنس:
O ذكر
O أنثى

2- العمر:
O دون العشرين
O 20 – 29
O 30 – 39
O 40 – 49
O فوق الخمسين

3- المستوى التعليمي:
O الدبلوم فما أدنى
O الثانوية العامة
O بكالريوس
O دراسات عليا
O أعلى مما سبق

4- المهنة:
O طالب
O موظف
O موظف مستقل
O غير موظف
O اخرى

5- الدخل الشهري "جنيه مصري":
O أقل من 1000
O 1001 – 2000
O 2001 – 3000
O 3001 – 4000
O أكثر من 4000

6- معدل استخدام الانترنيت (الهواتف الذكية، الحواسيب اللوحية، الحواسيب...):
O على مدار الساعة
O على مدار اليوم
O اقل من 3 مرات في الأسبوع
O أكثر من 3 مرات في الأسبوع

7- الخبرة في التسوق الالكتروني:
O أقل من سنة
O 1-3 سنوات
O 4-6 سنوات
O 7 سنوات فما أكثر

8- وسيلة التسوق الالكتروني الأكثر استخداما:
O الحاسوب
O الهاتف الذكي
O الحاسوب اللوحي
O وسيلة أخرى

9- منصة التسوق الالكتروني المفضلة:
O سوق.كوم
O جوميا
O وسيلة أخرى

القسم الثاني: الأسئلة المتعلقة برضى العميل
الإرشادات: اقرأ من فضلك التالي ثم اختر الرقم الذي تراه مناسبا بحسب الترتيب التالي

اتفق بشدة	اتفق	محايد	لا اتفق	لا اتفق بشدة
1	2	3	4	5

رقم السؤال	تصميم الموقع	1	2	3	4	5
1	تصميم الموقع بشكل عام جذاب ومرضٍ					
2	الارتباطات والروابط بين الصفحات واضحة					
3	الموقع منظم بشكل جيد					
4	أرى في سوق.كوم و/أو جوميا تصميما واضحا وأدوات بحث دقيقة					
5	يزودني الموقع بمعلومات مخصصة. (مثال: المنتجات المرشحة)					
6	الموقع سهل التصفح والاستخدام					
7	يشعرني الموقع بسهولة وسرعة وجودة التسوق عبر الانترنيت					
8	ارتباطات الموقع خالية من المشاكل والصفحات سلسة وسريعة الفتح					
9	لا أواجه أي مشاكل تقنية عند إدخال البيانات أو المعلومات					
	جودة المعلومات					
10	الموقع يزودني بمعلومات دقيقة ومفصلة عن المنتجات					
11	الموقع يقوم بتطوير المعلومات عن كل منتج بشكل دائم					
12	المعلومات المزودة بخصوص المنتجات ومزاياها صحيحة وتمتاز بالمصداقية					
13	نصوص المعلومات المقدمة سهلة الفهم والاستيعاب وكتبت بلغة بسيطة وواضحة					
14	من السهل اختيار ومقارنة المنتجات في أثناء عملية التسوق					

جودة تلبية الطلبات							
دائما ما تم إيصال طلباتي إليَ تماما كما طلبتها	15						
دائما ما تم إيصال طلباتي إليَ بصورة جيدة وبلا أي عيوب أو مشاكل فيها	16						
الموقع يوفيني بتفاصيل استكمال عملية التوصيل	17						
دائما ما يتم إيصال طلباتي تماما في الوقت الذي حدد لذلك	18						
الخصوصية والأمان							
أعتقد أن سوق.كوم و/أو جوميا موقع آمن ولن ينشر معلوماتي مع أي طرف ثالث	19						
الموقع واضح ويوافيني بتفاصيل إتمام كل عملية. (مثال: إتمام إدخال المعلومات البنكية)	20						
الموقع يبدي اهتماما بكيفية تجميع معلوماتي الشخصية	21						
التعامل مع هذا الموقع لا يؤثر على خصوصية معلوماتي	22						
الثقة							
الموقع أهل للثقة وآمن بناء على تجاربي التسوقية من خلاله	23						
الموقع مهتم بالعميل ورضاه بناء على تجاربي التسوقية من خلاله	24						
الموقع ليس انتهازيا بناء على تجاربي التسوقية من خلاله	25						
أعتقد أن هذا الموقع على دراية كافية بالسوق وقادر على المنافسة فيه	26						
الدفع							
الموقع يوفر طرق متعددة للدفع	27						
وسائل الدفع الالكترونية على درجة عالية من الأمان	28						
الموقع يدعم الدفع عند الاستلام	29						
الموقع يوفر سياسة استبدال وإسترجاع مرنة وسلسة	30						
رضى العميل							
بشكل عام، أنا راض عن تصميم موقع سوق.كوم و/أو جوميا	31						

32	بشكل عام، أنا راض عن جودة المعلومات التي يقدمها سوق.كوم و/أو جوميا					
33	بشكل عام، أنا راض عن استخدام سوق.كوم و/أو جوميا					
34	بشكل عام، أنا راض عن جودة عملية استيفاء الطلبات التي يقدمها سوق.كوم و/أو جوميا					
35	بشكل عام، أنا راض عن سياسة الخصوصية والأمان التي يتبعها سوق.كوم و/أو جوميا					
36	بشكل عام، أنا أثق في موقع سوق.كوم و/أو جوميا					
37	بشكل عام، أنا راض عن طرق الدفع التي يقدمها سوق.كوم و/أو جوميا.					

شكرا لمشاركتكم في هذا الاستبيان.

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APPENDIX C: Main Questionnaire Items

CODE	Description	Source
	Website Design	
WB1	The overall design of the website/s is welcoming and visually pleasing.	Nettleton, N. (2003).
	بشكل عام فان تصميم الموقع بشكل عام جذاب ومرضٍ	
WB2	The links between the pages are clear.	Tomei, L. A. (2003).
	الارتباطات والروابط بين الصفحات واضحة	
WB3	The website/s is/are clearly structured.	Vintar, M. (2007).
	الموقع منظم بشكل جيد	
WB4	As I see the souq.com, Jumia website, I see a clear layout and precise searching tools.	Tidwell, J. (2005).
	أرى في سوق.كوم و/أو جوميا تصميما واضحا وأدوات بحث دقيقة	
WB5	When interacting with the website/s, it provides me with tailored information (e.g. product recommendation).	Ameen, F. (2014).
	يزودني الموقع بمعلومات مخصصة. (مثال: المنتجات المرشحة)	
WB6	The website is easy to navigate and simple to use.	Minnick, J., & Friedrichsen, L. (2016).
	الموقع سهل التصفح والاستخدام	
WB7	In the process of purchase, it's easy to master the flow of online shopping.	Limited, E. G. (2015).
	يشعرني الموقع بسهولة وسرعة وجودة التسوق عبر الانترنيت	
WB8	The website's links are problem free, accurate and pages load quickly.	Tidwell, J. (2005).
	ارتباطات الموقع خالية من المشاكل والصفحات سلسة وسريعة الفتح	

WB9	The website's pages don't freeze after I put in all my information.	Limited, E. G. (2015).
	لا أواجه أي مشاكل تقنية عند إدخال البيانات أو المعلومات	
	Information Quality	
INFQ1	I am able to see specified and helpful descriptions on a product.	Hedeman, B., & Seegers, R. (1970).
	الموقع يزودني بمعلومات دقيقة ومفصلة عن المنتجات	
INFQ2	The product's information in the website/s are regularly updated.	Cipolla-Ficarra, F. (2014).
	الموقع يقوم بتطوير المعلومات عن كل منتج بشكل دائم	
INFQ3	The provided information about products and their features are correctly presented in the website/s.	Huemer, C., & Lops, P. (2012).
	المعلومات المزودة بخصوص المنتجات ومزاياها صحيحة وتمتاز بالمصداقية	
INFQ4	Texts and content of the provided information are easy to understand.	Wang, R. Y., Pierce, E. M., Madnick, S., & Fisher, C. W. (2014).
	نصوص المعلومات المقدمة سهلة الفهم والاستيعاب وكتبت بلغة بسيطة وواضحة	
INFQ5	It is easy to choose and compare products while shopping online.	Wei, J. (2014).
	من السهل اختيار ومقارنة المنتجات في أثناء عملية التسوق	
	Order Fulfilment Quality	
OFQ1	I have always received my orders exactly the way I ordered them.	Ding, F. (2018).
	دائما ما تم إيصال طلباتي إليَ تماما كما طلبتها	
OFQ2	I have always received my orders in good shape and without malfunctions.	Khosrow-Pour, M. (2006).

	دائما ما تم إيصال طلباتي إليَ بصورة جيدة وبلا أي عيوب أو مشاكل فيها	
OFQ3	The website keeps me updated on the delivery process.	Lehaney, B., Lovett, P., & Shah, M. (2011).
	الموقع يوفيني بتفاصيل استكمال عملية التوصيل	
OFQ4	The website always delivers my orders exactly the time I was promised.	Oodan, A., Ward, K., Savolaine, C., Daneshmand, M., & Hoath, P. (2003).
	دائما ما يتم إيصال طلباتي تماما في الوقت الذي حدد لذلك	
	Security and Privacy	
SP1	Souq.com and/or Jumia website is safe, reliable, and won't share my information with third parties.	Ghosh, A. K. (2012).
	أعتقد أن سوق.كوم و/أو جوميا موقع آمن ولن ينشر معلوماتي مع أي طرف ثالث	
SP2	The website/s is clear and notifies me at every operation.	Vimercati, S. D., Samarati, P., & Katsikas, S. (2013).
	الموقع واضح ويوافيني بتفاصيل إتمام كل عملية. (مثال: إتمام إدخال المعلومات البنكية)	
SP3	This website shows care in how it collects my personal information.	Garfinkel, S., & Spafford, G. (2002).
	الموقع يبدي اهتماما بكيفية تجميع معلوماتي الشخصية	
SP4	Using this website does not affect my information's privacy.	Khosrowpour, M. (2004).
	التعامل مع هذا الموقع لا يؤثر على خصوصية معلوماتي	

	Trust	
TR1	Based on my experience with this website in the past, I know it is an honest and trustworthy website. الموقع أهل للثقة وآمن بناء على تجاربي التسوقية من خلاله	Kumar, M. (2011).
TR2	Based on my experience with this website in the past, I know it cares about its customers. الموقع مهتم بالعميل ورضاه بناء على تجاربي التسوقية من خلاله	Camp, L. J. (2001).
TR3	Based on my experience with this website in the past, I know it is not opportunistic. الموقع ليس انتهازيا بناء على تجاربي التسوقية من خلاله	Schultz, C. D. (2007).
TR4	I know that the website knows its market well and how to compete with its competitors. أعتقد أن هذا الموقع على دراية كافية بالسوق وقادر على المنافسة فيه	Prins, J. E., Ribbers, P. M., & Tilborg, H. C. (2002).
	Payment Methods	
PM1	The website/s supports several payment methods. الموقع يوفر طرق متعددة للدفع	Kou, W. (2013).
PM2	Electronical payment methods are highly secured and trusted. وسائل الدفع الالكترونية على درجة عالية من الأمان	Hu, W. C., Lee, C., & Kou, W. (2005).
PM3	The website supports on-arrival payments. الموقع يدعم الدفع عند الاستلام	Turban, E., King, D., & Lee, J. (2007).
PM4	The website has a flexible and sufficient change/refund policy. الموقع يوفر سياسة استبدال وإسترجاع مرنة وسلسة	Saeed, K., Homenda, W., & Chaki, R. (2017).

APPENDIX D: Questionnaire Ethical Approval

T.C.
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Sayın BELAL ELSAYED ABDELGAYED MAHMOUD

Tez çalışmanızda kullanmak üzere yapmayı talep ettiğiniz anketiniz İstanbul Aydın Üniversitesi Etik Komisyonu'nun 11.03.2019 tarihli ve 2019/04 sayılı kararıyla uygun bulunmuştur.

Bilgilerinize rica ederim.

e-imzalıdır
Prof. Dr. Ragıp Kutay KARACA
Müdür

25/03/2019 Enstitü Sekreteri   NESLİHAN KUBAL

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APPENDIX E: The Result of the CFA on Customer Satisfaction (Factor Loadings and Measures of Research Variables)

Item	Variable	Estimate	S.E.	C.R.	Factor Loading
q35	Trust	1			0.67
q34	Trust	1.233	0.084	14.599	0.753
q33	Trust	1.181	0.083	14.235	0.731
q32	Trust	1.163	0.077	15.091	0.783
q18	Website Design	1			0.57
q17	Website Design	1.1	0.084	13.035	0.639
q16	Website Design	1.157	0.1	11.623	0.717
q15	Website Design	0.95	0.081	11.66	0.721
q14	Website Design	0.882	0.086	10.234	0.592
q13	Website Design	0.999	0.096	10.438	0.609
q12	Website Design	0.985	0.095	10.397	0.607
q11	Website Design	0.927	0.091	10.218	0.592
q10	Website Design	0.8	0.084	9.538	0.537
q23	Information Quality	1			0.588
q22	Information Quality	0.874	0.079	11.064	0.666
q21	Information Quality	1.116	0.098	11.417	0.699
q20	Information Quality	1.149	0.101	11.355	0.693
q19	Information Quality	1.156	0.103	11.266	0.684

q27	Order Fulfilment Quality	1			0.718
q26	Order Fulfilment Quality	0.864	0.061	14.264	0.757
q25	Order Fulfilment Quality	0.909	0.07	12.981	0.681
q24	Order Fulfilment Quality	0.84	0.068	12.314	0.645
q31	Security and Privacy	1			0.699
q30	Security and Privacy	0.904	0.048	18.791	0.687
q29	Security and Privacy	0.72	0.061	11.897	0.597
q28	Security and Privacy	0.764	0.058	13.191	0.665
q39	Payment Methods	1			0.615
q38	Payment Methods.	0.61	0.076	8.034	0.434
q37	Payment Methods.	0.897	0.077	11.61	0.683
q36	Payment Methods.	0.764	0.071	10.808	0.619
q46	Customer satisfaction	1			0.719
q45	Customer satisfaction	1.309	0.075	17.42	0.831
a44	Customer satisfaction	1.224	0.077	15.91	0.761
q43	Customer satisfaction	1.27	0.071	17.883	0.852
q42	Customer satisfaction	1.199	0.069	17.404	0.832
q41	Customer satisfaction	1.195	0.078	15.404	0.734
q40	Customer satisfaction	1.079	0.071	15.275	0.728

Correlations

		Customer Satisfaction	Website Design	Information Quality	Order Fulfilment Quality	Security and Privacy	Trust	Payment
Customer Satisfaction	Pearson Correlation	1	.616**	.548**	.557**	.579**	.680**	.638**
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000
	N	479	479	479	479	479	479	479
Website Design	Pearson Correlation	.616**	1	.632**	.509**	.612**	.639**	.481**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000
	N	479	479	479	479	479	479	479
Information Quality	Pearson Correlation	.548**	.632**	1	.475**	.500**	.563**	.403**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000
	N	479	479	479	479	479	479	479
Order Fulfilment Quality	Pearson Correlation	.557**	.509**	.475**	1	.515**	.605**	.509**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000
	N	479	479	479	479	479	479	479

Security and Privacy	Pearson Correlation	.579**	.612**	.500**	.515**	1	.719**	.476**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000
	N	479	479	479	479	479	479	479
Trust	Pearson Correlation	.680**	.639**	.563**	.605**	.719**	1	.608**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000
	N	479	479	479	479	479	479	479
Payment	Pearson Correlation	.638**	.481**	.403**	.509**	.476**	.608**	1
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	
	N	479	479	479	479	479	479	479

**. Correlation is significant at the 0.01 level (2-tailed).

RESUME

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