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CONSUMER BEHAVIOUR IN THE DIGITAL AGE

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Η συμπεριφορά του καταναλωτή στην ψηφιακή εποχή

Σημαντικοί Όροι: συμπεριφορά καταναλωτή, διαδικτυακές αγορές, ασφάλεια προσωπικών δεδομένων

Περίληψη

Ο σκοπός αυτής της έρευνας είναι να διερευνήσει τη συμπεριφορά των Ελλήνων καταναλωτών στην ψηφιακή εποχή. Πιο συγκεκριμένα, η έρευνα αφορά τις συνήθειες των Ελλήνων καταναλωτών όταν πραγματοποιούν αγορές στο διαδίκτυο, καθώς και την αντίληψή τους σχετικά με την προστασία των προσωπικών τους δεδομένων κατά τη διάρκεια ψηφιακών αγορών. Για το σκοπό αυτό, πραγματοποιείται μία πρωτογενής έρευνα ερωτηματολογίου. Σε αυτήν την έρευνα, 200 Έλληνες καταναλωτές, οι οποίοι χρησιμοποιούν το διαδίκτυο και που προέρχονται από όλες τις διαφορετικές περιοχές από την Ελλάδα, αποδέχθηκαν την πρόσκληση συμμετοχής στην έρευνα. Από τις απαντήσεις του συγκεκριμένου δείγματος μπορεί γενικά να συναχθεί το συμπέρασμα ότι, ειδικά όταν πρόκειται για τη νεότερη γενιά του σημερινού ελληνικού πληθυσμού, το διαδίκτυο έχει καταφέρει να αποκτήσει τη δική του θέση στις αγορές προϊόντων ή υπηρεσιών. Πράγματι, οι σύγχρονοι Έλληνες καταναλωτές έχουν επιλέξει να εμπιστεύονται τις διαδικτυακές αγορές, παρά το γεγονός ότι αναγνωρίζουν ότι είναι σίγουρα πιο «επικίνδυνες» από τις αγορές στα συμβατικά καταστήματα όταν πρόκειται για την προστασία και τη χρήση προσωπικών δεδομένων. Έτσι, μπορεί να ειπωθεί ότι σίγουρα οι διαδικτυακές αγορές με τα μειονεκτήματα ασφάλειας και τα πλεονεκτήματα ευκολίας τους, καθίστανται ένας ισχυρός παράγοντας στην ελληνική αγορά προϊόντων και υπηρεσιών.

Consumer behaviour in the digital age

Keywords: consumer behaviour, online shopping, personal data safety

Abstract

The purpose of this research is to investigate the behaviour of Greek consumers in the digital age. More specifically, the investigation is related to Greek consumers' habits when shopping online, as well as to their perception in respect to the protection of their personal data during digital purchases. For this purpose, to be accomplished, a primary survey with the aid of a questionnaire takes place. In this survey 200 Greek consumers, who use the internet and who come from all different regions from Greece, accepted the invitation to participate in the research. From this samples' responses it can be generally concluded that, especially when it comes to the younger generation of the present Greek population, the internet has managed to acquire its own position in relation to product/ and or services shopping. Indeed, modern Greek consumers have chosen to trust online shopping, in spite of acknowledging that it is certainly more "dangerous" than conventional stores when referring to the protection and use of personal data. Thus, it can be said that certainly online shopping with its safety drawbacks and convenience advantages is becoming a powerful factor in the Greek shopping market.

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CHAPTER 1: Introduction

1.1 Research aim and objectives

The purpose of this research is to investigate the behaviour of Greek consumers in the digital age. It has to be noted apart from the investigation of Greek consumers' habits when shopping online, their perception in respect to the protection of their personal data during digital purchases, will be also examined.

For the above purpose to be covered, the objectives of this research are formed as follows:

1. Examination of two-sided markets and their special characteristics, since e-commerce is actually a two-sided market
2. Through the above examination, the explicit requirements for the protection of personal data during digital purchases, is expected to be highlighted; this leads to the second objective, which is the presentation of the relevant, to the protection of personal data during digital purchases, legislation.
3. Next, the behaviour of consumers in general, and explicitly in the digital age is detailed.
4. Finally, a primary quantitative questionnaire survey, related to the opinion of the Greek consumers in relation to their behaviour in the digital age, takes place.

1.2 Significance of the research

The significance of this dissertation lies in the fact that, at least according to the researcher's extensive search, it is the first time the Greek consumers' behaviour in the digital age is examined in combination with their opinion on the potential use/ exploitation of their personal data during digital purchases. Consequently, this dissertation will for the first time reveal the habits by which Greek consumers make their online purchases, as well as the fears they potentially face in respect to the exploitation of their personal data by online stores.

1.3 Chapter outline

The first Chapter is the one in which the purpose and the objectives of this dissertation are clarified, the significance of the research is detailed, and a summary of the Chapters, of which the dissertation consists of, is presented. The second Chapter is that of the Literature Review, which is aimed at addressing the first three of the objectives set in Subsection 1.1. The third Chapter analyzes the research methodology; it explains in detail among others the methodology adopted, the population and the respective sample, and the research tool used. In the fourth Chapter the presentation and analysis of the research results takes place, and finally in the fifth Chapter the final conclusions are drawn.

CHAPTER 2: Literature Review

2.1. Two-sided markets

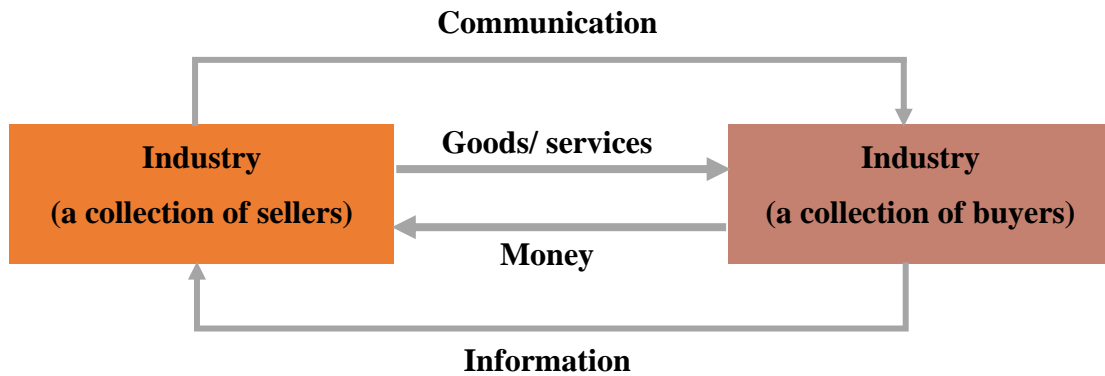
2.1.1. Introduction - market definition

Market is a multidimensional concept, which takes different forms and interpretations during the conceptual positioning of each science, its use by those involved, the consolidation policy of each system that prevails (e.g., capitalism and the laws of the free market), and the differentiation of the term market in the conditions of a unified world economy. Initially, since even ancient Greece, the term market, was used as the real space used by sellers and potential buyers for their gathering and for the exchange of goods; such as space could for example be a village square (Kotler, 2003, Kotler, Wong, Saunders & Armstrong, 2013; Magnisalis, 1997; Mantzaris, 2003; Tzortzakis & Tzortzaki, 2002).

Economists use the term market when they want to refer to a set of buyers (who want and can make purchases) (Dibb & Simkin, 2001; Kotler et al., 2013; Mantzaris, 2003) and sellers, whose transaction concerns the purchase and sale of a product in the respective time period under consideration, as within it the achievement of a point of equilibrium is sought through an equilibrium value and an equilibrium quantity (Kotler et al., 2013; Mantzaris, 2003).

Marketers believe that sellers refer to a particular industry and buyers are the market who, regardless the industry, can be both natural and legal persons by public or private law. Sellers transmit products and services or even communications, while buyers offer money and information in return. The connection between them, is illustrated with four flows (Figure 2.1), and by further analyzing the relationship the final result is the market as a quantity and quality of the buyers (Kotler et al., 2013; Mantzaris, 2003).

In modern economies, there are too many markets; producer or resource markets, as for example markets of raw materials, and labor, as well as monetary markets, which constitute one of the most important type of markets, since they have been created to meet needs, such as lending, saving, and so on (Tzortzakis & Tzortzaki, 2002).



Source: Kotler et al., 2013

Figure 2.1: A simple marketing system

It has to be noted that consumers can be also considered as sellers, since they sell their work, for which they receive income, and then use it for the goods and services they desire. The government itself is also a market that plays many roles. It buys from the resource markets, the producer markets and the intermediaries. It pays the price, and taxes these transactions (Tzortzakis & Tzortzaki, 2002).

Moreover, it could be said that market is a dimension that can be isolated and measured, having a dynamic character as it changes over time (Tzortzakis & Tzortzaki, 2002). In particular, the business world uses the term market to cover a part of the consumer public (Dibb & Simkin, 2001; Kotler et al., 2013; Magnisalis, 1997) that can be measured and have characteristics that interest each individual business (Simkin, Dibb, Ferrell & Pride, 2016; Jain, 1999).

In Figure 2.2, the levels of the market are presented (Kotler et al., 2013).

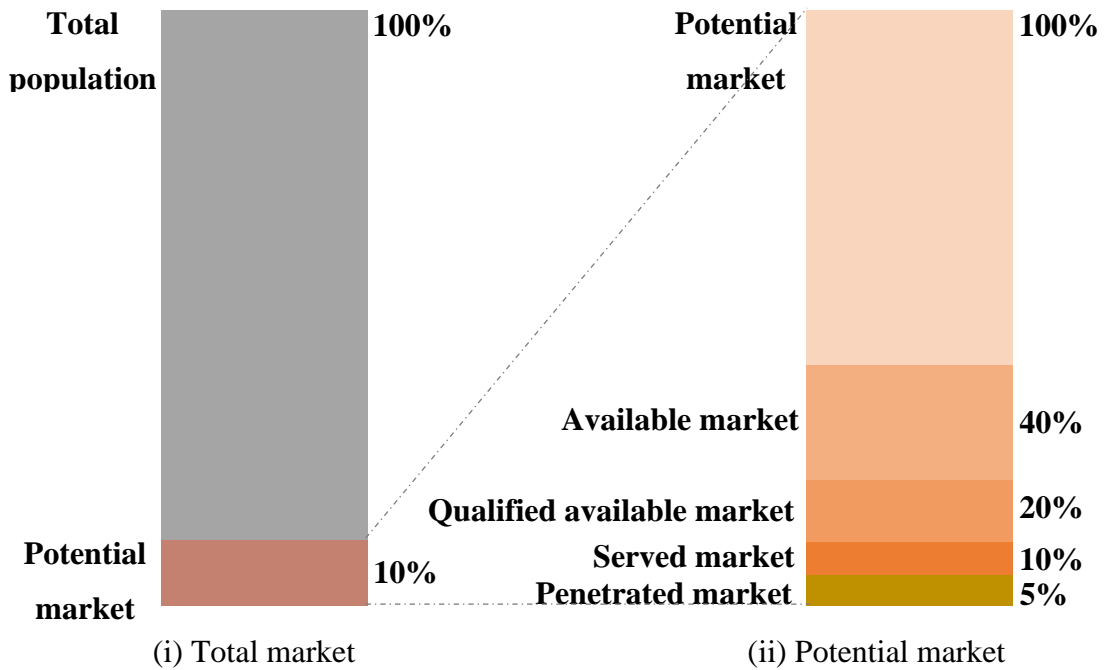
To sum up, from all the above it can be stated that the basic elements that a market must have are (Mantzaris 2003):

- The existence of a specific area, a wider area, within which transactions will take place.
- The existence of a specific product or service that can be offered to the market in a specific package.
- The existence of conditions that allow transactions to prevail.

The essentials, those involved must have are (Simkin et al., 2016):

- They must need or want a particular product or service

- They must have the opportunity to promote it
- They must have the need to use their purchase power
- They must have the authority to purchase the product or service.



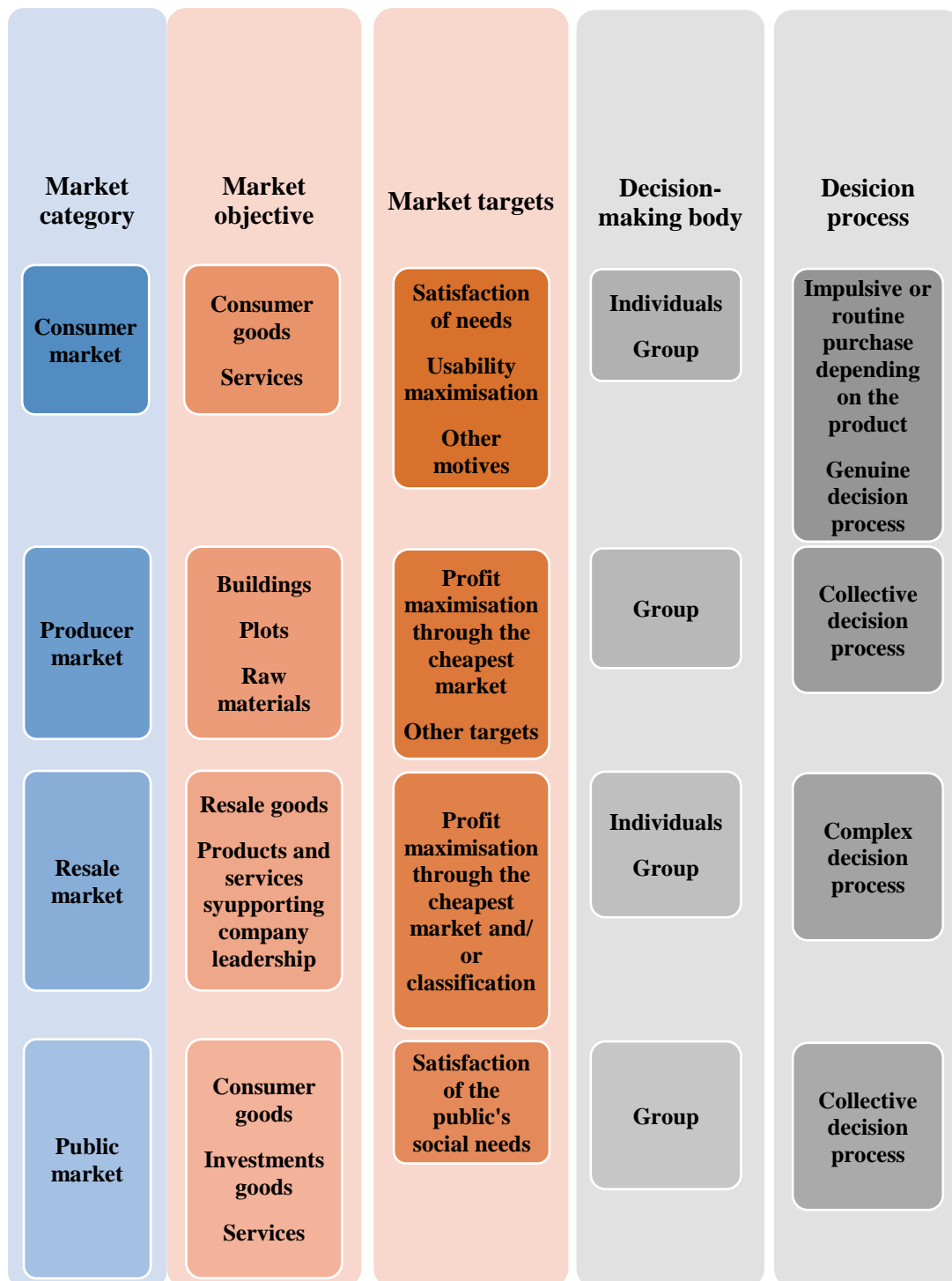
Source: Kotler et al., 2013

Figure 2.2: Levels of market definition

Finally, the main market categories are (Whinston, Stahl & Choi, 1997):

- The consumer
- The producer
- The resale, and finally
- The public market.

The specifics of these markets are presented in the following Figure (Kotler, 2003):



Source: Kotler, 2003

Figure 2.3: Market classification

2.1.1.1. Basic types of markets

The types of markets are forms of classification by characteristics and properties. They can be distinguished on the basis of quantitative and qualitative characteristics, and the degree of independence of those involved in it (Wright, 2004 b)).

When ranking markets based on quality characteristics, the components taken into account are the number of suppliers, and buyers, as well as their relative size. Thus, markets are separated between monopoly - monopsony, oligopoly – oligopsony, and polopoly markets, as wells as between suppliers and buyers; through these combinations, the potential market types are formed (Colander, 2004; Wright, 2004 b)).

When ranking markets based on quantitative characteristics, markets are distinguished between perfect - homogeneous and imperfect – non-homogeneous markets. A market is perfect when the profit maximization of the suppliers as well as of the buyers is achieved, when goods are homogeneous (Griffiths & Wall, 2000), when there is lack of personal, spatial and temporal preference of the market participants, when there is absolute market transparency and when a rapid participant reaction to any change in the environment is observed (Ayers & Collinge, 2005).

Finally, Robert Triffin's factor ($T = (\Delta x_1 / x_1) / (\Delta p_2 / p_2)$) helps markets to be ranked based on the degree of independence of the suppliers and the buyers. Absolute monopoly exists when the coefficient is equal to zero ($T = 0$), i.e., when the variation of the second supplier's price (p_2), has absolutely no effect on the quantity placed in the first supplier's market (t_1). When the coefficient tends to infinity, i.e., when the first supplier withdraws their entire quantity during the lowest price reduction of the second supplier's goods, homogeneous competition is exhibited (Mantzaris, 2003; Tzortzakis & Tzortzaki, 2002).

2.1.2. The special case of two-sided markets

2.1.2.1. Introduction – two-sided markets definition

Two-sided markets are markets in which there are buyers and sellers that make transactions with one another via a platform. A basic characteristic of these markets are externalities (positive and negative) both between the people in the same side - group

(intra-group) and between people in different sides - groups (inter-group externalities). Another primary characteristic of two-sided markets is the pricing that the platform sets to the two groups, the so-called price structure, which is aimed at the maximization of the platform's profits. The purpose of the platform is to set the proper pricing, so as for both sides to participate in the market (Armstrong, 2006).

To better understand two-sided markets, Armstrong (2006) provides fourteen examples of such markets, among which are academic journals, which compete to attract readers and authors, software, as for example Acrobat, which attract both text writers and readers, and media, such as newspapers, which through their content attract readers, while writers receive the benefits of the large crowd of these readers. In media there is also the example of advertising, for which the media serve as the communication means between the advertisers and the consumers. Other examples are shopping centers, which try to attract both consumers and merchants, payment systems (e.g., credit cards), which must have many card holders and many merchants that will accept these cards as a payment means, and telecommunication networks in which both the caller and the call receiver have gains by using such networks.

To the above examples, Rochet and Tirole (2004) add the purchase of videogame platforms, such as PlayStation, which try to attract players to purchase their platform so as to convince videogame manufactures to create games for their platforms, and which need videogame to be able to attract the players. Finally, other examples of two-sided markets are that of real-estate, in which real-estate buyers and sellers interact via a platform (i.e., the real-estate agency), and internet search engines via which users demand the existence of many and diverse sites, while sites desire the existence of multiple users.

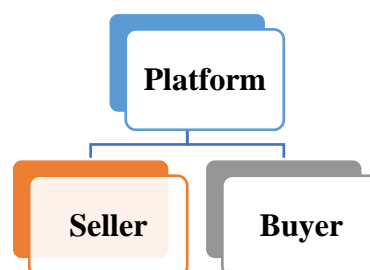
It has to be noted that in a sense two-sided markets are simple markets characterized by a special type of external network. This external character does not depend on the consumption of agents of the same group (e.g., consumers of the same product), but on the consumption of different but compatible agents on the opposite side of the market. For example, when joining an intermediary services platform, the buyer will consider the number of potential sellers using the same platform, in addition to the price they will have to pay. In other words, the reverse network size acts as a kind of quality parameter in the platform adoption option. Since the opposite network size is affected by the specific price applied on this side, the indirect utility of a dealer in a two-sided market depends on both prices (Wright, 2004 a)).

However, if consumers are allowed to make ancillary payments, the user charges applicable to each of them will play a rather minor role in the choice of adoption. For example, if a buyer and a seller are free to trade a transaction price, only the total surplus, clear of transaction costs on all sides, will matter. Any shifting of the cost, for example from seller to buyer, will pass and eliminated, for example through a corresponding price reduction (Rochet & Tirole, 2006).

According to the definition proposed by Rochet and Tirole (2004), such a market should not be called two-sided. More specifically, they define a market as two-sided if, while maintaining all the prices faced by the two parties, any change in the price structure (or distribution) will affect participation levels and the number of interactions on the platform. This will happen if the cost on either side cannot be fully transferred to the other side. Thus, it would be important to consider who pays what in order to obtain “both sides”.

2.1.2.2. Forms of two-sided markets

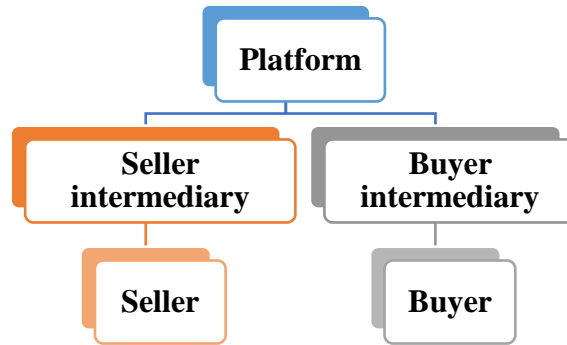
According to Rocher and Tirole (2004), two-sided markets have different forms. The simplest two-sided market form is that of Figure 2.4, which includes one platform and two groups, i.e., the buyers and sellers that interact via the platform. An example are computer operating systems, where interaction is achieved when the buyer (user) purchases an application created by the seller (application creator), and then uses this application in the particular platform (VanHoose, 2011). Another example is the interaction presented when a reader reads an ad in the newspaper, which has been placed in this shared platform by the advertiser (Rochet & Tirole, 2004).



Source: Rochet & Tirole, 2004

Figure 2.4: Simplest form of two-sided markets

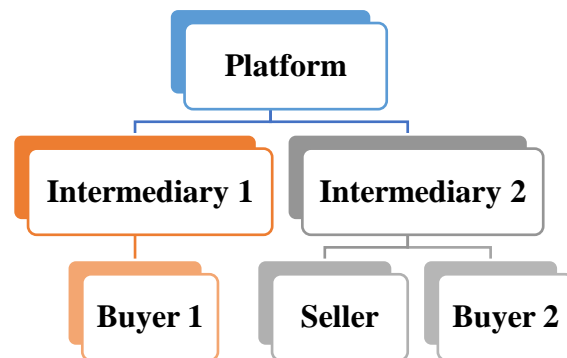
A more complex two-sided market form is the one when between the platform and the two groups intercede the so-called intermediaries or “service providers” (Rochet & Tirole, 2004). A typical example are credit card systems, where card holders interact with the platform via intermediaries, i.e., the bank of the merchant (acquirer) and the bank of the card holder (issuer). Other examples are telecommunications, and the internet (VanHoose, 2011).



Source: Rochet & Tirole, 2004

Figure 2.5: Two-sided markets where connection is achieved via intermediaries

A third two-sided market form is that when once more intermediaries are present. However, in this case an intermediary has the ability to serve two users (of different groups) without having the need to interact with other intermediaries. These interactions are called “on us” or “on net” (Rochet & Tirole, 2004).

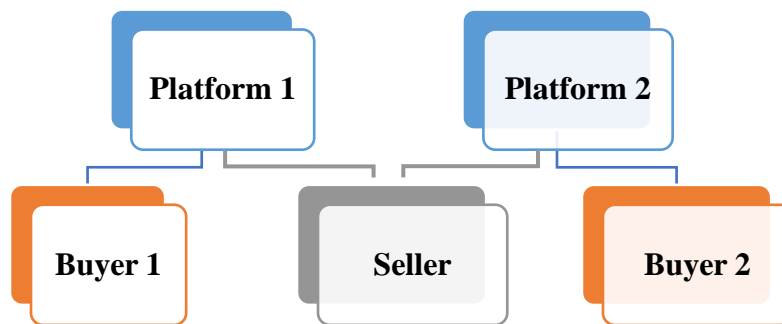


Source: Rochet & Tirole, 2004

Figure 2.6: Two-sided markets with “on us” or “on net” interactions

More specifically, “on us” interactions exist for example in the case of telecommunication companies, which can serve both the one who makes the call and the one who receives it. On the other hand, the traffic that is produced when the structure of the network (backbone) of the internet concurrently serves the user and the website, is an example of an “on net” interaction (VanHoose, 2011).

A final two-sided market form is the one in which there are multiple non-connected platforms. For example, a house seller can refer to multiple real-estate agencies to acquire a larger number of potential buyers, while a buyer can also refer to multiple real-estate agencies in their search for a house purchase. This form of two-sided markets is called “multi-homing” (Rochet & Tirole, 2004).



Source: Rochet & Tirole, 2004

Figure 2.7: Multi-homing markets

2.1.2.3. Two-sided markets externalities

A basic characteristic of two-sided markets, are, as already mentioned, externalities. There are externalities between two groups (inter-group externalities), which are usually positive, as for example in the case of the bigger benefit to consumers caused by the existence of many stores in a shopping center, and the benefit to a credit card holder due to this card’s acceptance by many merchants. Nonetheless, inter-group externalities may also be negative, as is for example the consumers’ response to advertising. Moreover, there are externalities within the same group (intra-group externalities), which can also be positive or negative. An example of such a positive externality is when videogames are exchanged with more peers, while a negative

externality is when multiple stores sell the same merchandise in a shopping center (Madden & Cooper, 2009).

Rocher and Tarole (2004) categorize externalities to usage and membership externalities. For usage externalities they explain that benefits from trade between the end users occur almost always from usage. For example, a card holder and a merchant acquire convenience benefits when the first uses their card instead of cash (Madden & Cooper, 2009). The usage, here, relies on the billing made by the platform. In contrast, in respect to membership externalities, Rocher and Tarole (2004) explain that at the point when an end-user in side i acquires a pure positive surplus by the fact that they interact with other users in side j , which is different than i , then the decisions, of somebody to become a member, lead to membership externalities.

Reisinger (2004) refers to two-sided markets with negative externalities. More specifically, he analyzes a market, in which two platforms, competing with one another, exist. The one side, the advertisers, exert a negative externality to the other side, the users. He proves that if the platforms can charge only the advertisers, then a higher competition from the users may lead to higher profits, since competition from the advertisers has been reduced. If platforms can also charge the users, profits may be increased or reduced, with the reduction resulting from the increased mediator competition of the additional tool of user fee. The balance with user fee is more efficient.

Belleflame and Toulemonde (2007) refer to negative intra-group externalities. More specifically, they explain that for externalities between two groups and for the platform to maximize its profits, the participation of one of the groups must be increased. This can be achieved by lowering the charging price of this group. By doing this, the platform increases the willingness of the other group to pay.

However, in the case of intra-group externalities, things are more complicated. One way to increase the willingness of competitive users (rival agents) to pay, is to attract only a few of them. The “good news” for the intermediary is that in this makes the participation of the competitive users less dependent on the participation presented by the other group. The “bad news” is that this other group is less willing to participate if the intermediary attracts only a few competitive users.

From both Reisinger (2004), and Belleflame and Toulemonde (2007), it becomes obvious that externalities influence the platform’s profits, and thus, business’ decision on the amount they will charge each side.

It has to be stressed that the nature of two-sided market externalities is determined by the characteristics of the interaction processes. From the point of view of demand, two main sources of externality can be identified, depending on the type of interaction (Madden & Cooper, 2009):

1. Single external interaction: a single matching takes place between two entities, acting on both sides of the market. The external components of the network exist when the corresponding quality improves when more alternatives are available. Examples of these markets can be found in real estate, dating and employment agencies.
2. Multiple external interaction: each agent receives a benefit, possibly possible, from each interaction. More interactions are possible if there are more partners. Such purchases can be found in phone books, internet search engines and payment systems.

The above two categories are not mutually exclusive. As in any market with differentiated products, the presence of more suppliers could mean a better choice for a particular good (thus increasing the quantity required), as well as the ability to buy more goods from different varieties (Madden & Cooper, 2009).

2.1.2.4. Pricing in two-sided markets

As mentioned previously, a primary characteristic of two-sided markets in respect to pricing is the pricing structure, i.e., the amount the platform charges each side. Here, the so-called principle “topsy-turvy principle” is applicable (Bartolacci & Powell, 2012), which mentions that one factor that contributes to a high price on the one side, to the point that it increases the margin of the platform on this side, is the same that calls for a low price of the other side, since for the platform to attract members on this other side becomes more profitable (Cortade, 2007).

Rochet and Tirole (2003 a); b)) provide some examples of two-sided markets that show which side pays more and which side is subsidized. These examples are presented in Table 2.1:

Table 2.1: Two-sided markets' pricing structure

Product	Subsidized side/ unprofitable side	Subsidizing side/ source of profit for the platform
Videogames	Consumers (console)	Software creators
Operating systems	Application creators	Customers
Text editing	Readers	Authors
Credit cards	Consumers	Merchants
Shopping malls	Consumers (free parking/ free gas)	Shops
Internet	Websites	Subscribers
Newspapers	Readers	Advertisers

Source: Rochet & Tirole, 2003 a); b)

2.1.2.5. Competition in two-sided markets

Competition arises in two-sided markets both within the same platform (as for example, shops competing in a shopping mall), and between platforms. Armstrong (2004) presents some competition models, and more specifically the ones presented in Table 2.2:

Table 2.2: Competition models in two-sided markets

Model	Description	Example	Diagram	
Two-sided exclusive intermediation	There are competitive intermediaries but for exogenous reasons each participant from (both groups) chooses only one intermediary	<p>When columnists work for only one newspaper and people read only one newspaper</p> <p>When consumers visit a specific shopping mall (quite possible) and stores reside in only one shopping mall (less likely especially for store chains)</p>		
Competitive bottlenecks	While group 1 continues trading with one intermediary, group 2 trades with both intermediaries	<p>When an author publicizes an article in a scientific journal, but the readers become subscribers to more journals</p> <p>When people buy only one newspaper, but advertisers refer to many newspapers to attract more potential customers</p>		
Overlapping readership	Relevant with the example of advertising in media, which assumes that two newspapers are not the substitute of one another, and thus, part of the population buys both newspapers			

Source: Armstrong, 2004

2.1.2.6. Price discrimination in two-sided markets

According to Liu and Serfes (2013), internet evolution and the rapid development of software tools have allowed companies accumulate vast amounts of information on consumers' preferences, characteristics, and purchase history. Companies use this information to separate their customers in separate groups, and target each group with different prices and products of different quality and characteristics. From price discrimination in one-sided markets, it is known that when it takes place with products horizontally differentiated, it leads to lower prices and profits for companies, since competition is intensified. It is also known that the existence of indirect externalities in two-sided markets intensifies competition (Zhang & Liu, 2016).

Consequently, one would expect that price discrimination in a two-sided market would produce a highly competitive environment with low prices and profits (Zhang & Liu, 2016). However, Liu and Serfes (2013) prove that price discrimination in a two-sided market leads to milder competition. More specifically, price discrimination in a two-sided market can increase prices for almost all of the consumers in respect to uniform pricing. Thus, price discrimination is more non-competitive in two-sided than in one-sided markets.

An interesting consequence is that in two-sided markets, companies may seek to acquire information on consumers in a more aggressive manner than in one-sided markets. In their conclusion, Liu and Serfes (2007) state that when the externalities' influence is powerful, then the perfect price discrimination leads to higher profits to a platform than uniform pricing. When price discrimination is imperfect, then prices are private and public. When platforms charge many different prices, it seems reasonable to assume that not all users take notice of all prices. In addition, observability is important due to existence of network externalities.

Thus, whether or not users take notice of all the prices before they choose to participate in a platform, profits in the state of balance depend on the quality of information platforms have on users' preferences. When information quality is perfect, perfect price discrimination is the product, while when it is not very accurate, price discrimination brings the platform to a worse position; when information quality is perfect, price discrimination can be profitable. In addition, the profits, when prices are private, are higher than when prices are public; this motivates platforms to make their prices less transparent (Zhang & Liu, 2016).

To all above it is important to add that, and according to (Carroni, 2017), it has been proven that platforms have the ability to make price discriminations based on their consumers' previous

online shopping behaviour; this behaviour-based price discrimination, of course, vary according to the related industry, yet seems to lead to different and novel effects for the consumers. More specifically, apart from the platforms, who always seem to “pay the price” when they discriminate, and in spite the fact that enterprises seem not suffering any effect, consumers seem to be faced with either loses or gains, thus, jeopardizing the consumers’ long-term welfare.

Investigating price discrimination from the side of the advertisers, Kodera (2015), seems, on the other hand, to prove that any platform’s profit is benefited by price discrimination, since “when advertisers multi-home, each platform behaves like a monopolist. If platforms can price discriminate, platforms extract all surplus from each advertiser. Therefore, platform profits from advertisers increase under price discrimination” (Kodera, 2015, p.925); in such a case, the consumers’ profits seem to be larger than in the case where uniform pricing would be applied; nonetheless, in the case when the consumers’ attitude towards different advertising campaigns is negative, then the profits of both the consumers and the platform will be, due to price discrimination, disadvantageous to both for the platform’s and consumer’s profit; the same is applicable when referring to the consumers’ welfare.

All above, and especially the latter two studies, seem to raise questions in respect to the welfare of the consumers, and subsequently, question the social acceptability of the decision of two-sided markets to apply price discrimination.

Such price discrimination challenges may indeed be the reason why the enforce of price discrimination has been considered as socially unacceptable; more specifically, and when referring to dominant online platforms such practices may be regarded as exploitative, thus, leading legal entities, as for example the European Court of Justice on price discrimination, the National Competition Authorities, and the European Commission in rethinking if the present competition law is or not “more suitable than omnibus regulation to tackle the negative effects that personalized pricing could have on consumers’ welfare”” (Botta & Wiedemann, p.381).

Such thought may indeed require further behavioural commitment negotiations with online platforms, as for example, “transparency requirements, limits on data collection/user profiling, rights to opt out of personalized pricing and the obligation to share customers’ data with competitors could significantly tame the risks of personalized pricing” (Botta & Wiedemann, p.381).

2.1.2.7. Other roles undertaken by the platforms

Platforms in two-sided markets may be called to undertake the following additional roles (Gawer, 2011; OECD, 2019):

1. The platform as a price regulator: there are cases, when in a platform the side of the sellers holds the market power in the side of the buyer, and buyers receive a small surplus for their participation in the platform. The platform then has a motive to set a price ceiling or change the price buyers are charged with via a subsidy in order to increase the buyers' surplus and their desire to participate in the platform. It has to be noted that the rationale of the restriction of the price the sellers charge the buyers would not exist if the platform was vertically shaped, i.e., if the platform traded only with the sellers and indirectly with the buyers. However, because it also directly trades with buyers, this provided it with the ability to extract surplus from the buyers; for this reason, it limits the sellers' side. However, there are cases in which the platforms do not proceed in price regulation, but rather follow a freedom policy (*lessez-faire*). An example is when the platform or the end-user that set the price is not in position to make a price distinction. Another example is when a seller, for example an application creator, makes a significant investment, in which the efficient pricing differs from one application to the other, resulting to prices between the end-users that should not be regulated by the platform. This *lessez-faire* platform policy is the platform's commitment not to obstruct the seller's investment via a confiscatory definition of a price ceiling in the selling of applications to users.
2. The platform as an issuing authority: in many cases platforms set criteria for those participating in the platform. For example, supermarkets grant shelf space to the biggest bidder, since this may lead to a lack of product variety for the average consumer. Media set certain terms for ads, so that they do not offend their audience.
3. The platform as a competition authority: when price regulation is complex and ineffective, the platform may become attractive for one side of the market by encouraging competition on the other side; a competition that brings prices close to the marginal cost and transaction volume close to effective volume. In a two-sided market, the platform

benefits from competition on the one side of the market, since it can later replenish the reduction brought by price competition of the one side via the benefits it acquires from the other side.

4. The platform as a market maker: platforms allow members of different groups to trade with one another. Examples are Amazon Marketplace, eBay, and Uber, where customers and concurrently act as sellers of products and/ or services.
5. The platform as an audience maker: platform facilitate the development of relationships between the public and advertisers. Examples are Facebook, Instagram, and Google Search, where advertisers can effectively reach their target audience.
6. The platform as a demand coordinator: platforms coordinate the demand between different user groups. Examples are operating systems, credit cards, and videogame consoles, whose functioning has already been previously explained.

2.1.2.8. Two-sided markets and digital purchases

Like any business, those that go online follow the same logic and the same costing platform, which in this case can also be considered as a web platform. This web platform can be used by countless companies, which choose to sell their products and/ or services online. Thus, the web platform concerns all these companies as they have the internet as a means of promoting their products and/ or services. Even many ads and advertising companies are moving online (Sun, 2006).

The web platform, similarly to the classic costing platform in non-online businesses, focuses on the product and/ or service being sold. However, other costing criteria play a role in the web platform (Parker, Van Alstyne & Choudary, 2017). The developer, for example, who is the “worker” of the product and/ or service or even the administrator or maintainer of the online business puts extra criteria on their working hours and effort in the final price (VanHoose, 2011).

E-commerce in general and digital purchases made by consumers are considered as two-sided markets. Two-sided markets are, thus, the prominent business model in digital purchases,

owing this prominence to a series of advantages, the basic of which are the following: free application, ease of use, speed, and easy product and/ or service purchases (Evans, 2011).

However, two-sided markets are also criticized for a series of disadvantages, with the most important being the high cost of installing a network, the leakage of personal data, and the use of personal data for malicious purposes. The latter two issues associated to two-sided markets have led to the development of explicit legislation aimed particularly at protecting consumers' personal data, when digital purchases take place (Parker et al., 2017). This legislation is summarized in the next Subsection.

2.2. The legislation associated to the protection of consumers' personal data during digital purchases

Directive 2000/31/EC of the European Parliament and the Council of 8 June 2000 applies to certain legal aspects of information society services, and in particular e-commerce (European Parliament, 2006). This e-commerce directive has been incorporated into Greek law via the Presidential Decree 131/2003 and regulates part of the services provided digitally, such as sales, business services and entertainment services (Presidential Decree 131/2003). However, the protection of persons with regard to the processing of their personal data is governed solely by Regulation 2016/679 of the European Parliament and of the Council on the protection of individuals with regard to the processing of personal data and the free movement of such data (European Parliament, 2016) and by Law 3471/2006, which incorporates Directive 2002/58/EC of the European Parliament and of the Council of 12 July 2002 on the processing of personal data and the protection of privacy in the electronic communications sector (Law 3471/2006).

In addition to the above, the new General Data Protection Regulation (GDPR), which came into force on 25 May 2018, refers to the protection of consumers' personal data. In particular, GDPR affects all information that can identify a person directly or indirectly. In the case of e-commerce, the user who wishes to complete a transaction with a digital store gives some personal information for its completion, and subsequently the order shipping. Most of this information, collected by digital stores, is considered as personal data. These data are usually the user's name, home address, date of birth, card number and email address (Digital Guardian, 2021).

Personal data, however, is not only that which is given directly by the user, in order to complete the order and for the order to be shipped to them, but also those arising indirectly, as for example, web addresses, cookies or other identifiers, such as identification tags via radio frequencies. These can leave traces, which, especially when combined with unique identifiers and other information received by servers, can be used to create a profile of individuals and identify them. By creating a profile for each user, digital stores can make decisions about these users, analyze or predict their personal preferences, behaviours and attitudes (Digital Guardian, 2021).

A key element of GDPR are the principles governing the processing of personal data, with each principle individually influencing the e-commerce sector in a different way. More specifically, with the principle of lawfulness, fairness and transparency, digital stores should process data in a lawful, fair and transparent manner. This means that digital stores must inform data subjects that the personal data they have disclosed to the digital store about the purchase of a product and/ or service will be processed and when that data will be processed (Digital Guardian, 2021).

The principle of purpose limitation obliges digital stores to collect and process personal data for specified, explicit, and lawful purposes and not to undergo further, incompatible with those purposes, processing. Digital stores collect personal data for specific purposes and reasons; these reasons are to complete the purchase of a product and/ or service, with users providing their card number, and personal information so as for the following to be ascertained: i) that the product and/ or service has been given to the user who bought, and ii) that this data will be provided to a transport company, which will deliver the product to the user at the physical address they have specified. It has to be noted that data processing for statistical purposes is not considered incompatible with the original purposes, if they can include pseudonyms; that is, digital stores can publish statistics about their digital store and their users without their identification being possible (Digital Guardian, 2021).

With the principle of data minimization, digital stores should collect and process personal data, which are appropriate, relevant and limited to what is necessary. According to this principle, the personal data collected should not be more than the absolutely necessary to complete a process of purchasing a product and/ or service. For example, a digital store is prohibited from asking users to provide their ID number, as this information does not serve any process in a digital shopping process (Digital Guardian, 2021).

With the principle of accuracy, digital stores should keep personal data about their customers accurate and up to date. This means that if a consumer has created an online profile on a store's website and after some time wants to complete another purchase from the same digital store, then their data will need to be verified. For example, if the user has changed their home address or mobile phone number, the digital store will need to take all necessary steps to delete or correct any information that has been changed by the user (Digital Guardian, 2021).

With the principle of storage limitation, digital stores should store the personal data of their customers only for the time required for the purchase and shipment of the order to be completed. Also, if a digital store decides to keep this data for statistical reasons it should be in a format that does not allow the identification of users (Digital Guardian, 2021).

Finally, with the principle of integrity and confidentiality, digital stores should process personal data in a way that guarantees their security, i.e., protection from unauthorized or illegal processing and possible loss, destruction or damage. One of the many ways to ensure the security of subjects' personal data is encryption. This practice guarantees that in case of data theft by an intruder, the customers of the digital store will not be able to be identified (Digital Guardian, 2021).

On the other hand, in respect to the cookies used by digital stores, two seem to be the prominent principles related to the protection of consumers' personal data: i) that the functions of cookies should not by far exceed the technically necessary, as they can allow a wider range of functions, from viewing audiovisual content and sharing an article on social media to analyzing user behavior and displaying personalized ads, and ii) that the cookies that are installed for the purpose of online advertising and/ or for the purpose of statistical analysis, are allowed only after the consent of the user (Digital Guardian, 2021).

2.3. Consumer behaviour

2.3.1. Consumer behaviour definition

The term consumer behaviour includes buyers in general, customers of specific goods, as well as the people who use goods. It is commonly used to refer to any human behaviour in the purchase and use of products and services (Wilkie, 1994).

According to Siomkos (2002), consumer behaviour is defined as all activities related to the product purchase, the actions, thoughts and influences that occur before, during, and after the purchase of the product, as they are made by buyers and consumers of products and services, as well as by those who influence the market.

According to Magnisalis (1997), consumer behaviour is considered the way in which the tendency of individuals to consume goods and services is manifested, and by extension act of consuming, which can be observed and recorded.

According to the American Marketing Association (AMA), consumer behaviour is defined as:

The dynamic interaction of affect and cognition, behaviour, and the environment by which human beings conduct the exchange aspects of their lives. Consumer behaviour involves the thoughts and feelings people experience and the actions they perform in consumption processes. (AMA, as cited in Peter & Olson, 2010, p.10)

Kotler (1994) considers consumer behaviour as the buying behaviour of end-consumers, who buy goods and services for personal consumption. Behaviour is also considered to consist of the sum of the mental and emotional processes, as well as the physical actions of people when they choose, buy, use and dispose of goods and services in order to satisfy their needs and desires (Bearde, Ingram & Laforge, 2001).

To sum up, consumer behaviour can be considered the way people act in an exchange process, the behaviour they display in market research, their decision-making process and their physical activity during the evaluation, acquisition and use of financial assets/ services. It is a multifaceted science that investigates not only the consumer decision-making process and the acquisition of the product per se, but also the consumers' further activities after purchasing the product, such as using, evaluating and rejecting the product or service (Blackwell, Miniard & Engel, 2006).

Consumer behaviour is a process that involves the mental and physical actions of the consumer that include motivations and causes of behaviour, regardless of the orientation, the market, the retention and the disposal of goods and services that are provided by the free market, the public sector and the family production, which lead to the achievement of consumer goals

and values, and thus, by extension to satisfaction. It contains the meaning of the decision procedure that precedes and specifies this act of consuming (Tyagi & Kumar, 2004).

The primary aim of the study of consumer behaviour is to establish and recognize the normality and regularity in the manifestation of certain elements and principles of the consumer in meeting their needs and desires, with the ultimate goal of classifying consumers in groups and types of consumption. Tracing the process by which individuals make their consumer decisions, is important due to the fact that marketing has evolved from a product-centric to a consumer-centric approach, which means that the consumers' desire now prevails that of the producers. The number of products that meet any need is constantly multiplying. The products are constantly specialized in meeting very specific needs and desires. Consumer preferences are constantly changing. The competition of producers has intensified, while monopoly has been almost been eliminated (Mantzaris, 2003).

For this reason, various theories have been formulated, with an interdisciplinary basis between the sciences of economics, psychology, sociology, communication science, and so on (Mantzaris, 2003). Research techniques have been drawn from almost all sciences; from psychology the measurements of attitudes have been drawn; from the social sciences the sampling, the questionnaires, and from the communication sciences the measurement of the means of communication and the research of the public have been drawn (Magnisalis, 1981; 1990; Petrakis, 1989).

2.3.2. Basic characteristics of consumer behaviour

But for a better understanding of consumer behaviour, the factors that influence it the most in the decision-making process, should be taken into consideration. In this Subsection, the seven main characteristics of consumer behaviour will be briefly analyzed.

2.3.2.1. Consumer behaviour motives

According to Wilkie (1994), people buy and consume goods to satisfy their needs and desires. In other words, it could be argued that consumer behaviour is a behaviour that is motivated in order to fulfill specific goals, needs and desires.

In most cases - if not in all - of consumer behaviour, people buy and consume goods, as a means for the satisfaction of some needs, materialistic, yet many times also emotional. It should be noted, however, that consumer motivation is not always obvious to third parties, something that leads to the use of theories and research to better understand consumer behaviour (Khan, 2007).

Part of the consumer behaviour comes from purely functional motives, such as when one buys bricks to build a house; another part of consumer behaviour is motivated by motives that express the individual as a separate entity (self-expressive motives), such as when someone buys a gift to please a member of their family (Wilkie, 1994).

It should be noted at this point that most consumer behaviours tend to fulfill more than one goal or need, so in reality when talking about consumer motivation, one does not refer to a single motive but to a group of motives that motivate the behaviour of the consumer (Solomon, Russell-Bennett & Previte, 2012). Also, while some motives may seem apparent to consumers and other third parties, other motives may be more difficult to identify, as for example when decisions to be made are more complex, and closely linked to each individual consumer's own emotions (East, Singh, Wright & Vanhuele, 2017).

2.3.2.2. Activities of consumer behaviour

The act of consumption as an act cannot be considered unilaterally. Thoughts, feelings, plans, decisions, purchases and experiences accumulated by the act of consumption, should be taken into account. Undoubtedly, a purchasing behaviour researcher that focuses on the practice of consumption and does not look at it universally, can omit other equally important activities (advertising, third party opinions, information gathering, alternatives' evaluation, purchasing decisions, types of payment, product uses, and so on) that are contained within it and that are equally important (Khan, 2007).

These activities can be differentiated into premeditated (or planned) and accidental (or unplanned). For example, the activity of deciding to buy a product can in most cases be characterized as a premeditated consumer behaviour (Acevedo, 2018). On the other hand, when a consumer visits a department store to buy certain products that they have in mind and sees a multitude of other goods, they will in many cases buy some of them without having planned

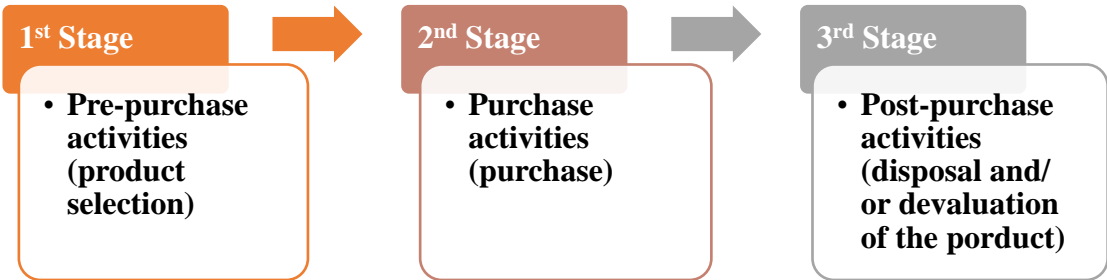
their purchase. This type of consumer behaviour can be characterized as accidental or impulsive (Solomon, Askegaard, Hogg & Bamossy, 2019).

This differentiation is particularly useful in researchers of consumer behaviour but also for advertisers, who this way understands behaviour mechanisms more universally (Khan, 2007; Wilkie, 1994).

2.3.2.3. The process of consumer behaviour

The concept of process, which includes various stages of activity, is a very useful approach method to better understand consumer behaviour. The process presented in Figure 2.8 could involve several steps; the three presented levels are more indicative of how consumer behaviour can work. The first stage is the pre-purchase activities, which could include the actions for product selection, followed by the second stage, purchase activities that constitute the purchase actions, and finally the third stage of the post-purchase activities, which include actions, such as product devaluation (Khan, 2007; Wilkie, 1994).

Dealing with consumer behaviour as a process, emphasizes on the importance of the stages that precede and follow that of the purchase, and provides guidelines for analyzing the reasons why a consumer in specific purchases (Wilkie, 1994).



Source: Wilkie, 1994

Figure 2.8: The three basic stages of the consumer behaviour process

2.3.2.4. Differentiation of consumer behaviour

The two elements that differentiate the consumer behaviour of the individual could be i) time and ii) complexity of decision making. Time refers to when the decision is made and the time of the completion of the process. Complexity, in turn, refers to the number of activities involved in making a decision, but also to the difficulty of this decision. Linking these two elements, it is understood that the more complex a decision is, the more time it takes to make it (Acevedo, 2018). It is also understood that the more complex a decision is, the more pre-purchase activities will take place for a consumer. Many times, however, in order for the consumer to avoid a possible delay, which may lead to a not so advantageous purchase, they will think less analytically, than they could, in order for the purchase to be completed (Solomon et al., 2019).

In other words, the consumer tries to simplify the decision-making process in the following ways (Wilkie, 1994):

1. The consumer does not always search for the best purchase, but rather for a satisfactory - acceptable purchase.
2. The consumer will be guided by information, advice and recommendations of third parties.
3. The consumer will trust brands and stores, from which they have already made purchases of products which made them feel satisfied in the past.

There are many times when the process of satisfying a need is aligned with the simplification of the decision-making process (Magnisalis, 1981). For example, there is the possibility of buying a relatively cheap product that concurrently has the quality specifications required by the consumer. In addition, many consumers face dilemmas, maintaining some “agility” in the buying process, so as to take advantage of situations when they allow it (Blackwell et al., 2006).

2.3.2.5. Roles and consumer behaviour

A consumer in the process of making a decision but also after this process, can have more than one role, such as the role of the person who influences the final decision of another buyer or user. In other words, the consumer could play all three roles (buyer, user, and influencer) at the same time, such as when shopping on their own or when shopping for themselves (East et

al., 2017). Consumer behaviour, however, may be influenced by third parties, and as a result the role of the person influencing the final decision is performed by people from the wider social environment, as for example a friendly and/ or family person or even the seller themselves. In addition, in many cases the role of the user could not be the buyer themselves or the influencer, but a third party for whom the purchased product is intended (Peter & Olson, 2010). It is reasonable that the possible combinations of these three roles could be much more than those already mentioned, always depending on the consumer, their external environment and their psychosynthesis (Solomon et al., 2019).

The consumer roles, mentioned above, are born through social interactions. Very few purchases are made based solely on the person's ego; consciously or subconsciously people always take into account their social environment. It is also important to note that roles change over the life of the consumer. For example, a child can rarely be an influencer and even more rarely a buyer (Khan, 2007). The purchases of a childless young person usually concern themselves, while in the case of a consumer with children, a large part of their purchases is made for his family and is certainly influenced by the needs of the rest of the family (East et al., 2017).

2.3.2.6. Exogenous influences on consumer behaviour

It is a fact that the consumer is influenced by their environment; this fact indicates the consumer's ability to adapt to different circumstances, always depending on the needs they wish to satisfy. This exogenous influence also has an impact on the consumer decision-making process (Haugtvedt, Herr & Kardes, 2008).

In Figure 2.9, it can be observed that there is a variety of exogenous factors that can influence human consumption behaviour, which sometimes function on a long-term and sometimes on a short-term level.




Culture refers to the beliefs, values, and opinions individuals share with members of the society, in which they live. Culture has a catalytic effect on people's behaviour throughout life, setting the "limits" on their perception in respect to which products and services are acceptable (Achumba, 1996). Subcultures - not in the bad sense - are groups of people who fit into the general context of culture and share similar values and attitudes. Some examples are those of gender, nationality, race, age and religion. Also, the social class to which one belongs is a factor

that may influence one's consumer behaviour. Similarly, the profession the consumer practices, the work income and the level of education they holds may influence their purchase decisions (Lambkin, Foxall, Raaij & Heilbrunn, 1998).

One of the main factors influencing consumer behaviour is the family. Especially in a society like Greece, where the institution of the family is still strong, people are influenced by their family's consumption habits as children, and later as adults. The social environment and the reference groups to which individuals belong are an equally important factor, since from daily discussions and contacts people are influenced in terms of their consumer habits. If, for example, someone is an athlete, they will certainly be influenced by their coach's advice on their eating habits and clothing preferences (Mastroianni, 2017).

External circumstances, such as inflation and unemployment or a long-term illness in the family, are factors that will determine how much people spend to buy a product and when it is best to buy a particular good. The marketing environment in combination with the presence of the media have in the recent decades gained enormous power to influence today's consumers (Wilkie, 1994).

As shown in Figure 2.9, from the first column showing the range of influence, there are factors that affect more generally, as in the case of culture or subculture. Going down, however, the factors have a more specific effect. For example, ads usually aim to influence the consumer for a specific product of a certain brand, while the culture factor does not "indicate" specific brands but rather the goods to be consumed (Wilkie, 1994). As reported by Luna & Gupta (2001), culture influences consumer behaviour, which in turn can enhance the formation and evolution of culture. In the second column, the time factor is mentioned, i.e., whether the influences take place for a short period of time, such as in ads, or whether the effects that take longer to take place, but last longer (as for example culture) respectively.

Sources	Influence range	Duration	Number of sources/ consumers
<ul style="list-style-type: none"> • Culture • Subculture • Social class • Family • Friends and reference groups • Exogenous circumstances • Marketing environment • Circumstantial influences 	<p>General influences</p>  <p>Specific influences</p>	<p>Macro-influences</p>  <p>Micro-influences</p>	<p>One or some sources/ consumers</p>  <p>Multiple sources/ consumers</p>

Source: Wilkie, 1994

Figure 2.9: Exogenous influences affecting consumer behaviour

2.3.2.7. Differentiation of consumer behaviour based on individuals' different personalities

As interpretivists typically claim, every human being is unique, resulting in “unique” needs. This, however, has an impact on everyone’s consumer habits and makes it difficult for advertisers to determine, which consumers will consume which products. One way to better understand and understand consumer behaviour is to try to understand why people adopt different types of behaviour. That’s why marketing managers invented market segmentation, a process that aims to identify “groups” of consumers in the market (Haugtvedt et al., 2008).

2.3.3 Consumer behaviour and the psychological factor

One of the key characteristics of consumer behaviour is the consumer's psychology. The psychological factor is very important, especially for purchases made by impulse or compulsion. The choice to buy a product is influenced by four psychological factors: motivation, perception, learning and beliefs and attitudes (Exadaktylos, 1996).

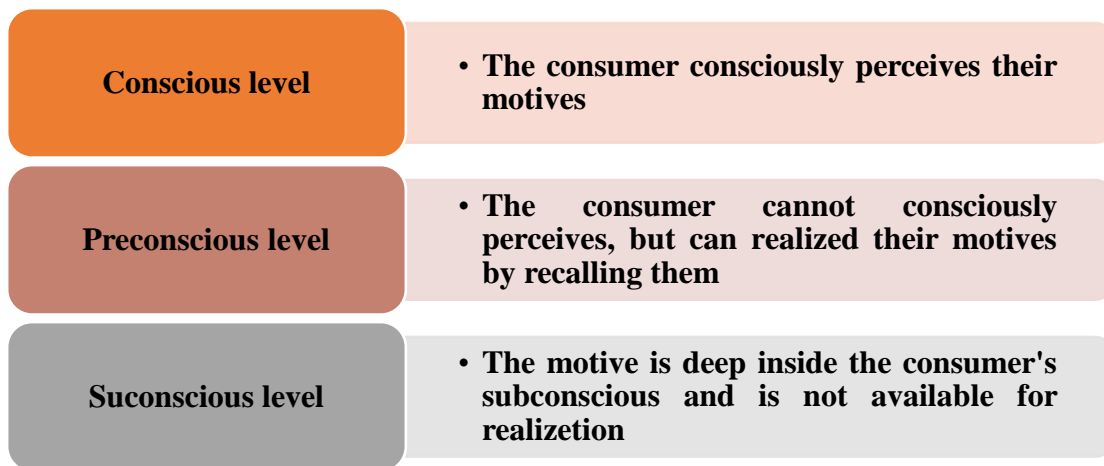
2.3.3.1 Motivation

Motivation is an important factor that can influence consumer behaviour.; to be better understood, three theories and approaches of psychology that have been formulated from time to time and which are used by modern marketing, are analyzed below. In order to for motivation to exist, there must be a need, and therefore, a desire to fulfill that need. However, the mechanism by which the consumer operates to satisfy this desire is not so clear to third parties, especially when this desire does not refer to biological needs or functional motivations (Khan, 2007).

A. Hidden motives

As Wilkie (1994) characteristically states, consumer behaviour consists of a multitude of motives; some of these are obvious (as all people are consumers, they can all understand the reasons that govern their behaviour), while others may be hidden in the consumer subconscious (consumers themselves do not realize what these motivations are). According to Freud (as cited in Statt, 202, pp.63-64) and his theory of subconscious motivation -which is based on the three basic concepts of identity, ego and superego- the person is unable to report many of the real motives of their behaviour, since in fact they are not aware of them.

As observed in Figure 2.10, at the first level, the consumer is aware of their motives. At the second level, the motives are not obvious, but they can be realized if the individual makes an effort to recall them and bring them back to their consciousness. At the third level, the motives are not only not obvious, but they are also very difficult to identify. In such cases, only qualified individuals - psychologists and psychiatrists - can detect them (Wilkie, 1994).



Source: Wilkie, 1994

Figure 2.10: Levels of consumer behaviour consciousness

The most practical explanation of this theory, refers to events where a consumer indulges in purchases without realizing all the reasons that have led them to the specific product (as seen later, such events refer to purchases made either spontaneously or by coercion) (Ratneshwar & Mick, 2005).

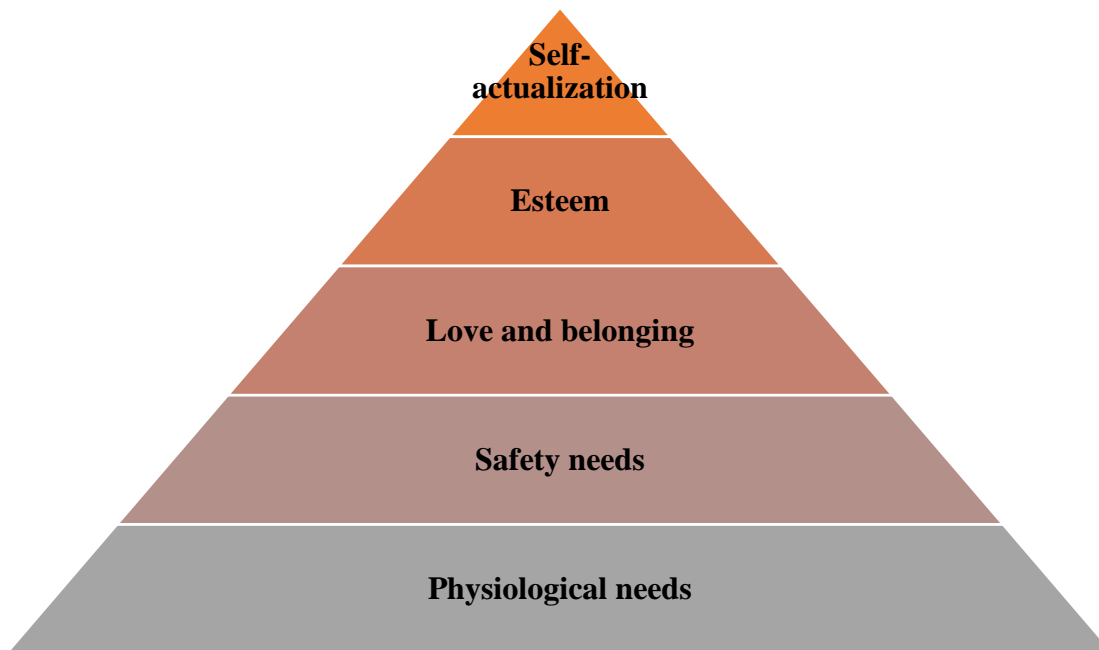
B. Intensity reduction - guide to consumer behaviour

This approach provides information on the main reasons why people adopt behaviours during their lifetime (Ratneshwar & Mick, 2005). As Wilkie (1994) argues, the idea of reducing intensity stems from research into the biology of the human body and its tendency to adapt and remain as stable as possible.

A state, however, in which there is no balance, creates feelings of tension; and when the tension increases, it creates feelings of anxiety. For example, when people feel hungry, they are motivated by the process of finding food to reduce the intensity they feel from the lack of food (Haugtvedt, et al., 2008). Therefore, in respect to consumer behaviour, the concept of reducing the intensity is self-evident. In general, consumers try to meet their needs, which are based on the desire to reduce the intensity born due to unfulfilled “wants”. Based on this theory impulse buying can be considers as mechanisms to reduce psychological intensities created in consumers (Statt, 2002).

C. Maslow's hierarchy of needs

Maslow has attempted to analyze human behaviour and the reason why individuals are motivated by explicit needs at specific times. Some preconditions for this approach have been formulated. Initially, the environment is very important for determining the needs that the person will have at a particular time. Second, when a need is met, it is no longer active (it is likely to recur). Third, there is a grading of basic needs; a person may not feel a need for a second level until they meet the needs of the first level; this applies to all five levels of the hierarchy. Maslow's hierarchy of needs is the basis for many motivational theories. With this theory Maslow has argued that while every human being is unique, all human beings have common needs, which begin in order, with the biological (physiological) ones and reach more complex non-biological ones, as shown in the Figure below (McGuire, 2012):



Source: McGuire, 2012

Figure 2.11: Maslow's hierarchy of needs

More specifically, according to Maslow needs are hierarchically categorized as follows (McGuire, 2012; Stoyanov, 2017):

1. **Physiological needs:** there are needs that originate from the human body, for its survival and maintenance, such as the need for air, food, and water. These needs are the basic primary needs of the individual, created by his normal life and are necessary for their

survival and perpetuation (Exadaktylos, 1996). They are the most prevalent needs of the individual, as they are the ones that must first be met in order to activate the rest of the needs. In other words, in order to be able to evolve to higher levels of needs, individuals must have first fulfilled their basic needs.

2. Safety needs: protection and safety from risks such as life insurance, protection against disease, protection of work, old age, and so on, fall in the safety needs category. Maslow has also pointed out mental safety, as well as the need for stability, familiarity and predictability. For example, securing the satisfaction of basic needs for the future is a need that comes after individuals have initially secured their present survival.
3. Love and belonging needs: if the physiological and safety needs have been met by the individual, the need for social participation and the exchange of feelings of love are the next needs that come to the fore. If these needs are not met the person is likely to feel lonely and often depressed. Such needs are expressed in various events of the individual such as for example in the gift market, sports, participation in cultural events and can lead to the creation of a product, but also to the expansion of its use.
4. Esteem needs: these are the needs of the individual for appraisal and recognition by the wider or narrower social environment. Maslow distinguished this particular need in two sub-categories: intrinsic needs, which refer to desires for competition and confidence, and extrinsic needs, which refer to the evaluation of others, such as recognition and appreciation. If these needs are met the person feels superior and capable, while otherwise they feel inferior and weak.
5. Self-actualization needs: these are the needs of the individual for inner fullness and psychological prosperity. Self-esteem needs are met by meeting the previous four categories of needs. It has to be noted that the fourth and fifth categories of needs are not easy to separate from each other, because in the pursuit of prestige, a person is likely to aim for personal fulfillment.

2.3.3.2 Perception

Usually, a motivated person is ready for action. However, two people with the same motivation may react completely differently, because they perceive the situation from another angle. Perception is defined as the psychological processing of information and how it is received by the senses of each individual (Mullen & Johnson, 1990).

In this Subsection, the emphasis is placed on the way with which the consumer is informed and understands the external messages they receive for each product. Since buying and consuming activities involve interactions with the outside world, the issue of perception is key to understanding consumer behaviour. As mentioned above, people may have completely different perceptions of the same subject and this can be seen in the description of the three perceptual processes described below (Exadaktylos, 1996):

1. Eclectic choice: every day, people expose themselves to stimuli from the external environment that may seem important and interesting to them, while avoid others that they may find unpleasant. Consumers use selective choice to decide to which situations and stimuli they will be exposed or not. Usually, the messages that consumers and people in general will pay attention to, are those that are relative to a current need but also to stimuli they expect. For example, if a hypothetical consumer wants to satisfy the need to buy a car, it is normal to pay special attention to the ads related to that particular product.
2. Eclectic distortion: in many cases in respect to the stimuli they face, consumers do not always find what they want, with the result that consumers try to adapt the inflow of new audiovisual information into their already formed point of view. Selective distortion describes the tendency of people to distort information according to their personally formed opinions.
3. Eclectic restraint: in many cases, people emphasize on some characteristics of a person or an object, while in others they may give less weight. For example, people may remember a particular date very vividly, while some other past events may not be remembered at all. In other words, people tend to hold information that supports what they believe and desire, and this is due to selective restraint.

2.3.3.3. Learning

As Mullen and Johnson (1990) characteristically report, learning is defined as a relatively permanent change in behaviour, as a result of practice or experience. It is a fairly broad and general definition, as the very concept of learning is so complex that it leaves no room for a more specific definition. Many have tried to analyze and describe the meaning of learning, but two approaches have prevailed. The first, the behavioural approach, which comes from a general theory of behavioural psychology and was founded in the early 20th century by Watson. The second is the cognitive approach and is a branch of the general theory of psychoanalysis:

1. Behavioural approach: unlike Freud, Watson did not embrace the theory of the existence of the unconscious, the subconscious or even the conscious. He argued that in psychology “you receive what you can see and what you cannot see simply does not exist”. In his experiments, he provided stimuli and then analyzed what exactly happened in the intermediate stages (Statt, 2002).

Pavlov, on the other hand, was interested in what was going on between the stimulus and the final reaction. In the research he conducted in the late 19th century in the digestive system of dogs, he managed to prove that between the stimulus and the reaction, processes with psychological content take part. In these experiments, he fed dogs, while at the same time ringing a bell. Over time, he discovered that when the bell rang, the dogs were getting ready to eat. Pavlov, thus, concluded that dogs can learn with the help of association.

In Pavlov’s experiment, the impulse was hunger, the stimulus was food, the hint was ringing, the response was preparation for food, and reinforcement took part in the repetition of the experiment. Pavlov’s learning experiment is very important for modern marketing, since it first connects the impulses of consumers with goods, thus, indicating which goods meet the needs of consumers and then it defines the separation of needs according to consumers. Marketing can also influence consumer behaviour, using stimuli and hints. For example, for the urge of hunger, a sandwich is the stimulus while its brand, its taste, and packaging are the hints. Reinforcement is a very important factor in marketing success, as only this is the only way for the consumer to remain loyal to their purchases. This may have provided some marketing guidelines, but it does not take into account possible needs’ changes (such as acquired momentum), and that more

analysis and research is needed to better predict consumer behaviour and more consistent results (Pavlov & Gantt, 2011). Two theories have prevailed in behaviourism: classical conditioning and instrumental conditioning (Foxall, 2002; Schiffman, 2004):

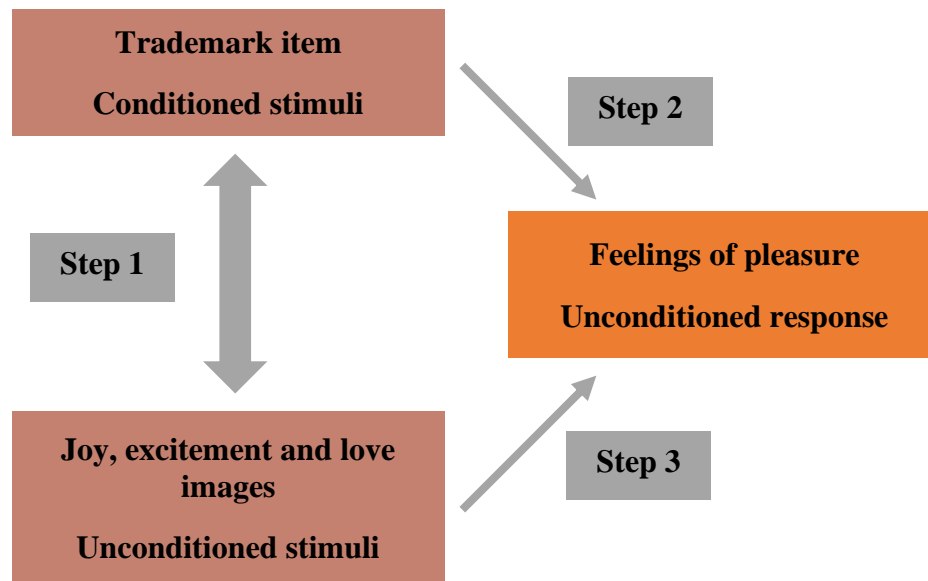
- Classical conditioning: as mentioned above, in Pavlov's experiment, the dogs had reached the point where they could with the sound of the bell produce from their glands, regardless of whether they were given food or not. This stimulus-response behaviour (ringing causes saliva to leak out) can be described as conditioned.

However, some remarks should be made at this point regarding the classical conditioning. Initially, the "learner" reacts or in other words, the learning process is produced in response to stimuli from the external environment. In addition, learning is based on an already existing stimulus-response relationship, such as that of food causing saliva to leak out.

In conclusion, in classical conditioning, if someone is aware of the pre-existing stimulus-response relationships, they can create the stimuli in such a way as to use them for a purpose. From a marketing point of view, it is difficult to say that consumers can be manipulated in a similar way to that of Pavlov - perhaps because the marketers do not have control over the consumers' lives, so they cannot promote the right stimuli at the right time.

However, there are several cases, when marketing opportunities arise where stimuli can be presented in such a way as in classical conditioning. For example, Coca-Cola bases its advertising strategy on Pavlov's principles. The company has tried to combine an optimistic phrase, a photo and a song - with her brand for its consumers to associate the name Coca-Cola with the meaning of fun.

In Figure 2.12, a classic conditioning ad approach, as described by Wilkie (1994), is presented. As seen in the particular Figure, associating a brand with consumer sentiment is a process that requires some type of preconditioned actions by advertisers. In the first step, the advertiser combines the brand with a popular to the consumers image, which in turn creates feelings of joy, excitement and love for the consumer (second step). After a few repetitions of the first two steps, the consumer will have probably associated the brand with positive and optimistic emotions (third step).



Source: Wilkie, 1994

Figure 2.12: Classical conditioning approach in advertising

- Instrumental conditioning: it is a theory that has been developed to explain that learning is driven by specific purposes. Instrumental conditioning has the following two main differences from classical conditioning:
 - ✓ While the “learner” of the classical conditioning is reactive, the “learner” of instrumental conditioning is active
 - ✓ Classical conditioning depends mainly on the stimulus-response relationship, while instrumental conditioning is based on reinforcement.

In essence, instrumental conditioning does not focus on the stimulus but on the individual’s behaviour. For example, the appearance of a Coca-Cola box can “push” the consumer to buy it immediately; this, however, will not take place every time the individual sees the product, but only when their behaviour indicates it (for example, to quench their thirst).

Skinner is the main and most important supporter of this theory. His view is that humans and animals behave with a purpose. For example, people buy products to meet needs and to be benefited or they ask questions to get answers. Since reinforcement is the key to this learning theory, it is very important for the learner

to find out exactly which response produces the reinforcement. In this way, they will acquire the knowledge of the way in which they will be able to acquire what they themselves want, and not what the external stimulus simply indicates. Thus, through their experience they will be able to learn to claim what they desire by deciphering the reinforcement “cause”, which is the one that causes a purpose and ends up in achieving this purpose.

Such a pattern of behaviour can also be detected in the behaviour of the consumer in their daily activities. Consumers through their daily experience learn which products and stores create positive emotions (reinforcements), and which not. As a result, they avoid making purchases that have disappointed them in the past, but often return to products that have adequately met their needs and desires.

There is a general disagreement among psychologists as to whether the theory of instrumental conditioning is applicable to consumer purchasing decisions. As Statt (2002) characteristically puts it, at least for products that have little personal value or importance to the consumer, the simple theory of behaviourism could be said to be sufficient.

There are also several psychologists who argue that for major purchasing decisions, the theory of behaviourism is not enough; and that for complex decisions of this type, behaviourism offers a simple description of behaviour rather than an explanation of how and why the consumer came to in a possible decision.

2. Cognitive approach: when faced with complex and important decisions most psychologists would turn to the definition of learning mentioned above, giving more importance to the word knowledge (beliefs and responses) than to behaviour. The difficulty most researchers face with this approach is that they cannot really know for sure exactly what knowledge one may have (Statt, 2002).

From the point of view of consumer behaviour, until a consumer buys a product or discloses their preferences to a market researcher, their consumer preferences and dispositions do not exist. When, however, in one way or another, the preferences and moods of the consumer are disclosed, the market researcher is faced with problem of interpreting their behaviour (Statt, 2002).

2.3.3.4. Beliefs and attitudes

But through action, learning and knowledge people form beliefs and attitudes, which when obvious, can offer a lot of information to the people who trade in a particular market. For example, by knowing the attitude and mood of consumers, an expert can understand why the current sales of a product are high or low. For this and many other reasons, the beliefs and attitudes of individual consumers are closely monitored by marketing people, so that they can influence them as much as possible (Exadaktylos, 1996).

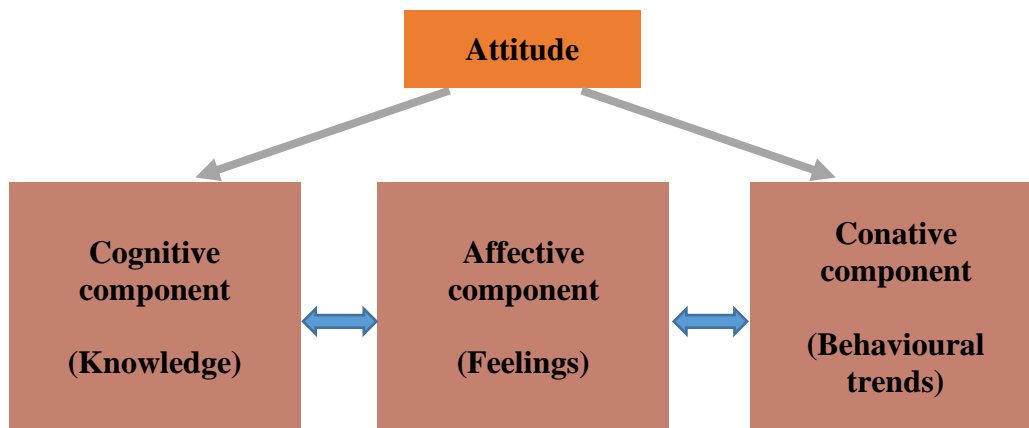
To better understand consumers' beliefs and attitudes, the following definitions are provided.

More specifically, belief is a descriptive thought that a person possesses about something. It is understandable that producers and manufacturers are particularly interested in the beliefs that people have in mind about products and services, as these beliefs can guide the final image and composition of the product and/ or service (Exadaktylos, 1996). On the other hand, response is defined as the "learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein & Aizen, 1975. p.6).

People have attitudes that apply to almost everything, religion, politics, clothing, music, food, etc. According to Exadaktylos (1996), attitude means a predisposition to feel or act in a given way in relation to a certain person, group, object, institution or idea. From the consumers' point of view, attitude is related to the consumers' knowledge of the product offered, but also to their understanding and awareness of it.

The components included in the concept of attitude, as well as the reasons why attitudes are useful to consumers, are analyzed as follows.

Since the time of the Greek philosophers, the view that has prevailed is that human behaviour is a combination of spiritual, emotional and material dimensions (Exadaktylos, 1996). From this point of view, the viewpoint of the three components of attitude emerged: the cognitive, the affective, and the conative component. As shown in Figure 2.13, these three components interact with each other, thus, forming consumer attitudes (De Boer, Pijl & Minnaert, 2011).



Source: De Boer et al., 2011

Figure 2.13: Components of attitude

More specifically (De Boer et al., 2011):

1. Cognitive component: the cognitive component of an attitude refers to the beliefs and knowledge of the individual about a particular object for which the attitude is formed.
2. Affective component: the affective component is related to the emotional factor and reflects emotions - both positive and negative - related to the object for which the attitude is formed. These emotions are guided by personality traits, motivations, social factors and other stimuli.
3. Conative component: the conative component reflects behavioural tendencies toward the object for which the attitude is formed; in other words, it refers to a person's willingness to take part in some kind of action.

As mentioned above, these three elements are not independent of each other, but there is a cognitive consistency between them. The affective component cannot be positive about a particular product and the cognitive component referring to the same product to be negative. In other words, an elementary coherence between the components that constitute consumer attitudes, is expected (De Boer et al., 2011).

Therefore, knowing how forming an attitude to a rational consumer works, it can be considered as easy for advertisers to intervene in this process and possibly influence consumer attitudes (De Boer et al., 2011).

2.3.4. Socioeconomic status and demographic characteristics and their effect on consumer behaviour

2.3.4.1. 21st century - the age of mass consumption

In the present time, mainly Western countries are going through a transitional period not only in terms of political events and the economy, but also in respect to the society as a whole, which is obvious in architecture, art, literature, music, cinema and even in the act of consumption itself. According to van Raaij (1993), humanity is in a transitional process, from the age of modernism to the age of postmodernism. According to Toffler (1970), there are three periods in the history of civilization: the agricultural, the industrial and the information revolution.

The period that preceded the modern period is characterized by its agricultural orientation. Hunting tribes began to engage in agriculture, the ruling class consisted of kings, military leaders and priests, while most people engaged in agriculture and did not have the time and opportunity for education or participation in cultural events other than their religious duties. Also, the culture of that time was aristocratic.

This was followed by the modern period, which dates approximately between 1450-1960, and is the timeframe when the Industrial Revolution gradually took place. In the 19th century, the labor force was concentrated mainly in mass production factories, while this phenomenon gave birth to the separation between the working classes themselves, as well as to the strict distinction between the working class, and the owners of capital (capitalists). These distinctions, in turn, gave birth to the political ideologies of socialism, communism and liberalism.

The modern period is a period characterized by the mass production and consumption of products. The transition from the modern to the postmodern period did not take place without political, economic and social unrest. The materialistic values of the previous generation emphasized on the acquisition of material goods, the existence of law and order, and power. The younger generation, on the other hand, demands freedom of expression and speech, the

existence of secularism and harmony in the coexistence of (formerly) contradictory concepts and values.

In the postmodern world, there is an increase in the supply of new jobs that create, transform and disseminate information. The proletariat is being replaced by office workers, who are employees, secretaries, teachers, students, administrators, researchers, advertisers, writers, bankers, insurers, and so on, and who handle various forms of information. According to Toffler (1970) and Firat and Venkatesh (1993), the main causes of the postmodern period are social and technological. Among the main social changes are individualism, the fragmentation of political and social values, and the paradoxical coexistence of opposites.

Individualism is a central phenomenon of modern times. Nowadays the household consists of fewer members and the percentages of single-member households have an increasing tendency. There are more consumers who decide on their personal purchases and more the goods consumed individually. Advertising must follow the new era where women work, and the new role of the man, which now extends to the household itself. More families, who own two cars are no longer the exception. Children owning their own stereo systems, televisions and computers are common (Lukes, 2006).

Another trend is the fragmentation of political and social values. Prevailing ideologies tend to disappear and are replaced by the simultaneous existence of multiple values and rules (Denton & Voth, 2016). Another phenomenon is the paradoxical coexistence of sometimes opposite concepts, values and phenomena. For example, in a mall it is possible for a bank to coexist next to a pornographic shop, while a gay bar may reside near a church (Denton & Voth, 2016; Halman & Nevitte, 1996).

It is reasonable to argue based on the above that the modern era can be characterized as the era of mass consumption. As Rifkin (1996) characteristically states, from the culture of the producer, the world of capital has passed to the culture of the consumer. Instead of striving for a better life in the future, everyone has started chasing direct consumption. Instead of people having the immediate goal of satisfying their needs, they became victims of the dilemma to follow fashion and modern trends or not.

At this point, having as a reference point everything mentioned so far, an effort to explain in further detail how and to what extent the socioeconomic and demographic data of consumers can and do influence consumer behaviour in the present times.

2.3.4.2. The significance of socioeconomic and demographic factors on consumer behaviour

Reference to the basic characteristics of consumer behaviour has already been previously made. One of these characteristics is the external factors of consumer behaviour, such as culture, subculture, family, the wider social environment, external situations and the marketing environment, and the way they can affect consumer behaviour. Apart from the social reality that characterizes each country, consumption certainly depends on its economic situation and demographics (Mullen & Johnson, 1990).

Some general changes that have taken place in recent decades in Western countries are worth noting to see the evolution of modern people's mentality and lifestyle. These changes have, in turn, created market opportunities in some industries and reduced demand in others (Statt, 2002). For example, the growing number of working women has helped create and grow markets, such as frozen foods or cosmetics. Declining family size due to divorce and declining birth rates has led to changes in food consumption, product packaging, and home buying habits. Rising unemployment has also led to reductions in spending related to personal and home purchases (van Raaij, 1993).

As Lambkin et al. (1998) characteristically point out, the aging population has become one of Europe's most pressing problems. These older consumers usually buy in small quantities, in neighborhood stores, have different eating habits and are over-consumers of television, radio and newspaper. However, older consumers are not a group with homogeneous behavioural characteristics, since each person is unique and has unique needs; nonetheless, some consumer trends, as the ones mentioned here, are more evident in this particular group.

Diaz de Rada (1998) trying to define different types of consumers, depending on their consumption habits, was led to the conclusion that regardless of developments in communication (media) and transport (extensive use of private and public vehicles), the differences between rural and urban consumer habits have not yet been diminished. This was not so much attribute to the economy as it was to the social and spiritual mentality of consumers in relation to the environment, in which they have learned to operate.

Diaz de Rada (1998) also made a distinction between traditional consumer behaviour (buying products out of necessity, taking into account price and product quality, product use until it is "exhausted") and new consumer behaviour that focuses on the individual and the

prestige that the individual will acquire from the use of specific products (this was most notable among younger people, who mainly buy products with famous brands, enjoy the purchase act, and buy goods that they may not use). This new consumer behaviour is a product of a specific social development, which can be differentiated depending on external factors that may affect consumers, but will reappear when these factors are eliminated. At this point the question arises whether the above two types of consumer behaviour are influenced by factors, such as age, gender, education and social status. Williams (2002) states in a related study that the importance of a purchase evaluation criteria is influenced by the gender, income and social status of the consumer.

From the above, it is obvious that the social, political, economic and demographic reality of a country are important factors, influencing the consumer behaviour of individuals. It is reasonable to conclude that the more economically developed a country is, the more intense will be the phenomena of mass production and consumption, since stimuli for consumable products are everywhere, while the largest percentage of the population has access to shops and department stores.

After all, above, a brief but comprehensive attempt to analyze consumer behaviour and the external factors that influence it -using various already formulated theories and approaches- it could be said that by the nature of consumer behaviour is an inexhaustible issue, since it refers to human rational, which, throughout its course on this planet, is constantly evolving, also resulting to habits revolution. Thus, the only issue that can be for sure concluded is that the consumer environment is and will be constantly changing.

Trying to analyze the psychology of consumer behaviour, the analysis of models and theories seems to be the only inevitable step; however, this analysis provide with the impression of stagnation, at least up to a point, in respect to consumer behaviour. The reality, however, is more complex. In the near future much of consumer behaviour will continue to act in the same way - or so it seems; on the other hand, there will certainly be some changes, which in the distant future will take on greater proportions. Besides, such changes seem already apparent, as consumers gradually move from being traditional to being digital consumers. These latter changes are the focus of this research, and as such, are analyzed in the following Subsections.

2.4. Consumer behaviour in the digital era

2.4.1. Digital consumer

The digital consumer, as a concept, refers to the consumers - user of the internet market. Several studies, without delimiting their consumption profile, yet based on the frequency of their internet visits, explain that digital consumers are internet users that spent several hours on the internet or that visit the internet less frequently (at least once every two years) to make a product or service purchase. In general, renowned researchers of social science, as for example Tapscott (2009), consider that the modern consumers are young individuals of the so-called internet (digital) generation, and approach their consumer behaviour through the characteristics of this digital generation.

This generation constitutes the largest generation of young people, and the first generation that grows up in a world saturated with social media, digital systems, and the promise of constant internet connection (Montgomery, Gottlieb-Robles & Larson, 2004). The digital generation youth by assimilating the digital technology's evolution, learn and grow up in a digital manner (Sastry, 2019). Their majority, if not all, grow up socially and morally in a context of constant interactions with autonomous and intelligent systems, as for example social robots, and elaborate digital graphics. At the same time, they participate in social media, make virtual trips, play online games among others (Siepmann, 2015). Virtual reality influences the way they think, as well as their feelings. It contributes to the acquisition of general knowledge, providing these young people with the ability of collecting information, knowledge, and opinions. To sum up, technology constitutes part of their everyday life, providing diverse forms of experience (Freier).

Modern consumer society targets young people, since they are the primary consumers of digital technology, in addition to being the most profitable consumers (Montgomery et al., 2004). A research on modern youth has revealed that people age between eight and twenty years old are the one that proceed to the most frequent annual digital purchases than all other age groups (Sastry, 2019).

Geraci and Nagy (2004) explain that young people are the ones who in the present times define what is and what is not commercial, and for this reason vast amounts are spent to investigate their psychology, habits, and values. Their passion for constant communication has led to the development of wireless products for direct messaging, of online games, enhanced

internet access, and digital music and video projection. Kiel, also explains that technology is directed by children and that with the satisfying of their needs, the needs of all people are also satisfied. Studies on the modern purchase scene prove that the digital generation holds the role of the influencers of consumer behaviour and influences to a great extent the purchases their parent proceed to.

More specifically, 21-year-olds influence their families by 81% in respect to clothes' purchases, and by 52% in relation to car purchase choices. Younger children, aged between 5 and 14 years old, influence their families by 78% in respect to edibles' purchases. In addition, 5% of all cars bought in 2004, were purchases made by people born between 1980 and 1995 (Lammersma & Wortelboer, 2017).

At this point it is considered important to briefly explain the characteristics of digital consumers; this is in order to later explain how these consumers respond to the challenges of digital consumption. More specifically, these characteristics are as follows (Tapscott, 2009):

1. The digital consumer desires freedom of choice and expression: the digital consumer wants to feel internal satisfaction, originating from their choices. The internet provides the digital consumer with the ability to choose what to purchase according to their needs, providing access to a plethora of markets. The digital consumer insists on freedom of expression and uses digital technology to visualize their choices, exchange opinions with friends and peers, and finally choose the product that mostly fulfils this freedom.
2. The digital consumer investigates before choosing: the digital consumer can be characterized as a market "spy", thus, constituting the most unpredictable consumer group. With access to global markets, the digital consumer discloses and reveals companies' background and is in position to compare their credibility, as well as their products' prices. The digital consumer prefers to thoroughly examine their choices and does not conclude to any purchase if they are not certain that a product is in accordance to their needs.

Tapscott (2009), in his book entitled "Digital Generation", explains that if someone wishes to approach this consumer group, they have to adopt strategies that favor honesty, rational pricing, prompt service, reliability, and transparency. Thus, he stresses that modern companies must provide abundant information sources for a product, especially when this product requires a large financial or emotional investment by the

consumer. He also explains that the more informed the consumer feels, the more certain they feel in respect to their final choice of a product and/ or service, and in relation to the company's reliability.

3. The digital consumer seeks ethical integrity and transparency: the digital consumer examines the philosophy and the principles of a company before they make a transaction. Young people are interested in companies, which promote moral and environmental standards. Ultimately almost 40% of young people would not purchase their desired product, if they knew that its company's practices negatively affect different social issues, while 77% would not purchase products by companies that lie, publicize misleading ads, unless if these companies admit and correct their mistake.
4. The digital consumer cultivates cooperation and social contact: the digital generation is characterized as the relationships and cooperation generation. Its majority participates in open conversation groups, where they cooperate digitally, and uses emails to directly exchange contexts on their work, leisure, and so on.

Modern young individuals adopt this cooperation culture in the consumer market, where they use relevant communication tools and create a virtual community. Such tools are the social media, when constant communication with friends and peers. and discussions on products intended to be bought and on offered services, are enabled. Tapscott (2009) characteristically explains that young individuals exchange opinions and experiences to conclude as to which purchase, they will make to better satisfy their needs.

5. The digital consumer contributes to the shaping of markets: according to Montgomery et al. (2004), the digital consumer does not simply constitute a consumer of the digital world, but is rather a creator of digital consumption patterns. As they explain, the modern consumer constantly wishes to declare their choice ability, and rarely settle for the purchase of products that do not bear their personal characteristics.

Consumers are willing, for example, to spend large amounts of money for a personal configuration of their car. In addition, they seem to prefer to refer to markets, in which

shops provide them with the ability of configuring their product choice, even if they may finally purchase the original product.

Companies, in their part, realizing this cooperation, and creativity mood, enter new business fields. A characteristic example is that of the first mobile phone companies, which by realizing the modern consumers' characteristics, initially offered consumers with the right to choose a personal ringtone. Today, and due to the constant evolution of services, the majority of modern companies provides their consumers with the ability of purchasing products that entirely bear their personal choices. The athletics brand, Nike, is a typical example, since it offers its digital consumers with the ability of choosing the color and fabric of its products via a combination of specific choices.

The new generation is willing to offer, to cooperate, and provide useful ideas in the production of products not yet available in modern society. Tapscott (2009) foresees that the internet will gradually move from being an information platform to being a space of people's cooperation and self-organization in communities, which will gradually enter the production process. In other words, Toffler's idea in respect to a consumer transforming into a prosumer, seems to be gradually realized (Toffler, 1970).

6. The digital consumer desires speed: the digital consumer desires prompt service, and demands from their environment to evolve in speed emulating the latest desktop computer technology. The digital consumer wishes to have the privilege of direct communication with the company they make transactions for the resolution of potential issues. More specifically, 80% of digital consumers expect direct response, when sending an email to a company.
7. The digital consumer is innovative: researchers report that modern consumers grow up in a culture of constant inventions, and thus, innovation is something taken as granted in their everyday life, guaranteeing a constantly faster communication and enhanced capabilities. The production of new mobile phone models, computers, iPod, and electronic programs is so fast, as needed to service the demand of the new generation that desires the latest and best product in existence. Tapscott (2009) states that the digital consumer wishes to purchase the latest for example mobile phone model not because

their previous has stopped working, but because this latest model have additional features and services.

However, the acquisition of the constant evolution of technology is the result of the consuming trends that will always be present in human societies. The use of the latest technological achievements offers fastest communication but mainly satisfies feelings of prestige and self-image. Studies prove that the modern consumer is not only a worshipper of innovation, but also feels as disadvantaged if they do not possess the state-of-the-art machinery, as their friends, and peers do.

2.4.2 Consumer behaviour on the internet

The consumer, as already explained previously, is a complex entity, comprising of a number of characteristics that contribute to the formation of their personality, and consumer behaviour. The consumer behaviour is the product of a decision-making process that bears those characteristics of the consumer and their environment (Marlin & Olinger, 2010).

The basic characteristics do not differ from one consumer to the other based on whether the consumer is a digital consumer or a traditional consumer making purchases in a conventional shop or even based on whether the consumer resides in one country or another. So reasonably it can be assumed that all people consume because they want to satisfy some kind of need (Gunter, 2018). However, the need that will be satisfied and the way it will be satisfied depends on the motives, the activities, the gender, the educational level, the personality of each consumer, as well as to individual endogenous and exogenous factors that form their choices (Marlin & Olinger, 2010).

Researchers report that digital consumers lean towards this new digital market, directed by motives, endogenous and exogenous factors, i.e., as any other consumer. Their consumer behaviour is based on specific characteristics and is defined in accordance to the environment and the personality of the individual (Sastry, 2019).

Having already defined consumer behaviour, it is considered important to investigate how the modern consumer deals with the internet market. The goal is to discover which consumer need this market comes to cover, and in which manner (Sastry, 2019; Siepmann, 2015).

Based on a research conducted by Parade Magazine (as cited in Kaplanidou, 2010, p.65), 61% of digital consumers consider the internet as a safe environment for the realization of their

purchases. 54% of the internet users prefer to view and touch a product during their purchase. According to another research, the majority of consumers treat the internet as an alternative purchasing environment. Some of them refer entirely to this alternative environment to investigate potential products (offline consumers), while others to directly make their purchase (online consumers). Digital stores, on their part, select their purchase audience and form their context respectively in order to meet the requirements of their offline or online consumers or even both.

As it becomes apparent from the above, the digital consumer profile can be distinguished based on their offline and online consumer behaviour. In the following Subsections the reasons that drive modern consumers towards offline or online consumption are detailed in order to decipher their consumption profile in the digital market.

2.4.2.1. Offline consumers

Verhoef, Nelsin and Vroomen (2007) offer significant explanations on the phenomenon of online investigation and offline purchases. More specifically, they explain that offline purchases are due to the fact that the internet tends to provide a powerful competitive advantage in terms of searching properties, while a traditional store has a powerful competitive advantage in terms of product purchase properties. Also, they explain that the “weakness” of the internet to create a stable clientele in the various purchase stages, i.e., the search stage, and the purchase decision-making process, favor the continuation of the offline consumer phenomenon.

Research statistics reinforce the particular phenomenon’s extent and prove that adolescents -the primary consumer target of commercial businesses- prefer to shop from traditional department stores than via the internet. They use the internet to become informed on the purchases they want to perform, on their characteristics and price, but continue preferring to consume via the traditional market (Gunter, 2018).

Tapscott (2009) examining the digital consumer, makes an effort to explain the reasons why digital stores, in spite of their innovative and technologically advanced nature, have not yet achieved in “conquering” their consumer-target, i.e., the youth. He concludes that the majority of young people do not own their own credit card, as required by most of the digital stores. Thus, though the primary internet users are adolescents, studies prove that the majority of them will make an online purchase via their parents, who themselves are owners of credit cards.

However, young people do not wish their parents to know what they purchase, and thus, prefer offline search for products, and traditional purchases, since they can satisfy their needs and desires in a more effective manner (Gbadamosi, 2017; Kotler, Cao, Wang, Qiao & Zhang, 2020).

It can, thus, be concluded that credit card payments (excluding digital stores of a limited local range that offer cash on delivery payment options) limit the range of online digital consumers. In addition, consumers seem to avoid online purchases due to fears of theft and fraud of their personal data due to the impersonal and unfamiliar to them internet services (Kotler et al., 2020).

The reasons that are associated to the temperament and the culture of the consumer usually constitute obstacles for the realization of online purchases. Offline consumers appear distrustful to technology efficiency, and question the delivery of their purchases, because they do not trust electronic systems, digital and virtual shops, and virtual products. They continue preferring purchases in the conventional market, with which they are more familiar, and via which they believe their purchases are safer, and less risky (Gbadamosi, 2017).

Forsythe and Shy (2003) state that offline consumers, and based on their explicit characteristics, are less prone in exposing themselves in high-risk situations, As the ones associated with digital purchases. Hoffman, Novak and Peralta (1999), Roy and Ghose (2006) and Schlosser, Barnett and Lloyd (2006) further explain that the secrecy of these consumers and their lack of trust to something they are not familiar with are significant obstacles for the promotion of digital purchases. Järveläinen and Puhakainen (2004) stress that a consumers' distrust on the internet's abilities is not only attributed to their lack of abilities in using the internet, but also to their general preference on making purchases via conventional stores.

Researchers explain this attitude by referring to the internal social and sociopsychological characteristics of these consumers' behaviour. Bagozzi (1974) defines the purchases and sales as a social exchange. This exchange is influenced by external factors and the internal characteristics of the individual consumer. In online processes, the external factors are associated with the salesmen, the product, the service, and internet characteristics. More specifically (Bagozzi, 1974):

- The salesmen' characteristics: they refer to customer service, the respect, protection, and safety of the customers' personal characteristics.

- The product characteristics: they refer to the consumers' perception on the quality, the price, and the alternatives of the product and/ or service.
- The characteristics of the website design: they refer to the reliability, the experience characteristics, the speed, and the ease of use of the store's website.

Finally, is it believed that online consumers do not proceed to online purchases, because in the conventional market they still have the advantage of a personal contact with the store, the salesmen, the store's decoration, music, and colors; all these as a whole, exude a vividness that attract the consumer into making. On the other hand, the internet aims at surpassing the gap of "personal contact", which is created because of the salesmen's absence, who advises, suggests and whose presence is in many cases crucial for the completion of the consumption process. Consequently, a digital store fashions its website with colors, music background, and photo galleries among others, aiming at approaching the characteristics and the vividness of any conventional store. It creates a loyal clientele via the provision of personal benefits to the so-called "good" customers. It limits its impersonal character, by becoming familiarized with its consumers, their choices, and by sending emails with personal references. The final result cannot still approach the "personal" character of a conventional purchase, yet seems to be attractive to consumers, who are gradually convinced on the digital store's quality, and as a result, begin participating in online consumption (Hines & Bruce, 2007).

2.4.2.2. Online consumers

In respect to online consumers, Thomas and Sullivan (2005) refer to them as consumers that make purchases online via the internet. Online consumers refer to the internet to make purchases, because it offers them with a plethora of choices that cannot be easily found in a conventional store or even a conventional market. With meticulous search for products being their fundamental characteristic, online consumers prefer the internet for their purchases, since it ensure access to limitless stores and choices, in comparison to the conventional market, for the satisfying of their needs (Tapscott, 2009).

The motive, in this case, is the satisfaction of the online consumers' need for investigation, and for certainty in respect to the final purchase after having analytically examined the maximum range of choices, offered by the internet. The ability of an easy access to countless

websites satisfies the motive of cross-examination, since in minimum time the consumers have ability of knowing the characteristics (accurate quality characteristics, dimensions, pricing, transport costs, and delivery period among others) of a wide range of alternative choices, which interest consumers. In conventional stores such a research could be never be a satisfying, while would also require spending a lot of time (Sastry, 2019). Consequently, the consumer motivated by the need to find the appropriate product or service that satisfies their need in the most (2004) efficient way, resort to digital stores, because as Tapscott (2009) and Montgomery et al. (2004) explain, they desire direct access to all the markets; there they can find anything they desire without having to spend time and money on useless or meaningless purchases.

In addition, it is observed that internet products, and in spite of covering a vast range of prices, including the cheapest, as well as the most expensive markets, they are often cheaper than the products of conventional markets. Websites benefit from the absence of operational costs and are in position to offer better prices to their consumers. Moreover, some markets are favored from exchange rates, which make overseas digital markets quite profitable for consumers. The consumer “devotee” of searching and optimum purchase choice, feels satisfied from their internet purchases, when they can fulfill their need with less costs (Gunter, 2016).

Also, a digital store constitutes a showroom that is in constant operation, on a 24-hour and on weekly basis. Consumers deprived of free time and relevant to the conventional stores working hours, have the ability to search for their desires and fulfill their needs via digital stores. A computer and an internet connection guarantee direct access to a vast number of markets. In a digital store, consumers can shop wherever they are, without wasting their time at the cost of other obligations. In addition, this way, they consume without being affected by fatigue, stress, unfavorable weather conditions, endless waiting in line of conventional stores, and traffic jams that hinder access to the purchase point, among others. A characteristic example is the fact that some employees make their purchases via the internet during their break time. Web browsing guarantees access to all types of markets in seconds, thus, allowing the instant satisfaction of the needs and requirements of this type of consumers (Gunter, 2016).

It can, thus, be concluded that for individuals - consumers that lack free time or access ability to a certain market, digital markets are the suitable alternative. In this case, the consumer is pushed towards a digital purchase, drive by the same needs that push them towards a conventional purchase, i.e., the acquisition of products and/ or services (Kotler et al., 2020).

In addition, a digital store via the provision of promotional discounts, gifts, as well as via the constant information on the products and activities of the company, and the free delivery cost when their consumer reaches a predefined purchase price level, manages to gradually gain the interest and the trust of consumers. The consumer, on their part, benefiting by the relevant promotional offers, makes visits and purchases more often from digital stores that satisfy their needs in an optimum and most profitable way (Siepmann, 2015).

Internet investors note that by studying the perceptions of the digital generation they have recognized that in order to “conquer” it, they have to offer it with a purchase environment of moral integrity and transparency. Thus, their target is to guarantee a valid and scheduled delivery to the desired or specified by the consumer location. They also aim for the exact compliance with the payment policy and the delivery schedule. As already mentioned, many digital stores now offer their consumer with a customize service; their products are known as customized and presuppose that the consumer has the ability to customize the product they want to purchase in terms of color, materials, and so on (Siepmann, 2015).

The modern pervasive computing environment automates communication between customers and companies via emails among others, thus, satisfying the desire of the digital generation for speed and prompt service. The modern consumer stresses that they choose to refer to digital stores to make their purchases, since they offer the advantage of prompt service. The digital company, on its part, states that it wishes the browsing of its consumers to include all the required qualifications that will make it an easy and not an unavoidable activity (Gunter, 2016).

Finally, it is noted that a part of the consumers chooses digital stores simply because they have the ability of expressing their opinion and of communicating with people with similar interests (Madden & Cooper, 2009). In digital consumption, consumer undertake the role of the influencer on the products they wish to purchase, while the companies create cooperation relationships with their customers in the aim of improving their products and services (Kotler et al., 2020).

Today, in the age of the internet, forums, corporate support, group users, and emails, consumers offer their ideas and opinion, feeling that they participate in a group of a large impersonal company, which they help improve its products. Leading companies today implement innovative methods to receive feedback from their customers, without having to monitor time-consuming researches and surveys (Gunter, 2016).

CHAPTER 3: Research Methodology

3.1 Research design

The research employed in the present dissertation is the descriptive, in order, as already mentioned in the first Chapter, to investigate the consumer behaviour in the digital age. The research is descriptive, as a statistical study will be carried out to identify the patterns or trends of the particular issue and not the causal links between the various elements it consists of. The decision for this choice was based on the fact that descriptive studies help to create a hypothesis (which in this case is that consumer behaviour is highly affected by the emergence of the technology), on which further research can be based (Singh, 2010).

It is noted that the research, as a statistical study, will be quantitative (i.e., based on objective measurements and the statistical analysis of data collected through surveys, questionnaires and surveys (Singh, 2010)) and will lead to the extraction of primary data, i.e., data that a researcher draws directly from the sample, which is directly related to research objective (Singh, 2010).

In terms of the number of researchers it is an individual research, since it is conducted only by one researcher, while finally in terms of purpose it is empirical, since it tries to give an answer-solution to a question-problem based on new, primary data which are collected by the researcher themselves for the needs of the specific research (Singh, 2010).

3.1 Research tool

A questionnaire is employed as the research tool, which is aimed to reveal the opinion of Greek consumers in relation to their behaviour in the digital age. The reasons why the questionnaire is chosen as a tool for the present research are as follows (Bradley, 2013):

- The necessary data can be collected in a short period of time
- The results of the questionnaire can usually be quantified quickly and easily through the use of a statistical software
- Data can be analyzed more “scientifically” and objectively than with other forms of research

- Once the data has been quantified, it can be used to compare with the results of other surveys.

The questionnaire is developed so as to cover the last objective of this research. For this purpose, it was developed based on the content of the Literature Review. More specifically, and based on the secondary data presented in the Literature Review, the questionnaire was decided to comprise of the following questions:

1. The questionnaire begins with questions related to the demographic characteristics of the respondents. The questions here are either dichotomous or multiple choice.
2. The questionnaire continues with two multiple choice questions, which refer to the use of the internet.
3. Then the questionnaire includes nine multiple choice questions, which refer to the use of the internet for purchase purposes.
4. The questionnaire is completed with seven questions regarding the protection and use of personal data in online shopping. These questions are five-point Likert scale questions (strongly disagree, ..., strongly agree).

3.2 Content validity and reliability

3.2.1 Content validity

Validity in scientific research means the degree to which a research instrument can measure what the researcher thinks he or she should measure (Litwin & Fink, 1995).

One of the methods of checking validity is construct validity, with the construct being a certain idea. A clearly defined research question should lead to the definition of the purpose and objectives of the research, which determine the construct and how it will be measured. Increasing the number of different measurements in a survey will increase the validity of a conceptual construct provided that the measurements measure the same construct (Litwin & Fink, 1995).

In the context of questionnaires, the term content validity is used to indicate the extent to which the elements of a questionnaire adequately cover the construct under study ((Litwin &

Fink, 1995). Content validity is the method used to study the validity of the research tool of the present research, i.e., the questionnaire. In fact, content validity was determined as follows:

1. The validity of the content of the questionnaire was determined using the method of pre-test (in the form of a pilot study), in which the answers of the participants are checked against the research objectives. More specifically, the researcher, prior to the final research, conducted a survey, in which a total of 10 Greek consumers participated.
2. After contacting these participants, they were asked to complete the questionnaire and then comment on whether or not questions in the questionnaire were clear and if the answers it contained, met the objectives of the research. They were also asked if any additional questions would need to be added.

According to these 10 participants, both the questions and the possible answers to the questions were clear and in line with the objectives of the research. However, as they pointed out, some additional questions could be added regarding whether or not buying products online is easy or not, and the ways online purchase are made. Following this recommendation, questions 11 and 12 were added to the questionnaire (more details on the questionnaire are provided in the Appendix).

3.2.2 Reliability

Reliability is a quality attributed to proposals or measurements based on the degree to which they lead to consistent results. In order to determine the reliability of the questionnaire, another pre-test took place with the reliability coefficient being determined by the method of internal consistency reliability, in which the 10 Greek consumers were used again. This method was used, as it determines the consistency of the research tool. In fact, the Cronbach's alpha coefficient was adopted to determine this consistency.

Cronbach's alpha reliability was calculated using Microsoft Excel and more specifically through an available online Microsoft Excel program that includes an automated calculation of Cronbach's alpha coefficient. Cronbach's alpha coefficient proved equal to 0.711. A reliability of at least 0.7 was considered high enough for the research tool to be used in the present study (Litwin & Fink, 1995).

The feedback from the pilot survey helped the researcher review the questionnaire to ensure that it met the objectives of the study. The main reason for the pilot survey questionnaire was to ensure, as far as possible, that i) the questions would detect the type of answers the researcher intended to obtain, ii) would be acceptable in terms of their content, and iii) would adequately cover every aspect that the researcher would particularly like to explore. Thus, if it was found that some questions were difficult for the respondents to understand, they were corrected accordingly.

3.3 Population and sample

The target population for this research is the Greek consumers, who use the internet (it has to be noted that there is an explicit question in the questionnaire regarding the use of the internet, which was used to ensure that all respondents would be active on the internet). More specifically, the survey involves 200 Greek consumers from all different regions from Greece.

Their selection was made through non-random sampling, in which the sample is selected based on the subjective judgment of the researcher and not random selection. More specifically, the selection was made using purposive sampling, which selects the sample based on the characteristics of a population and the purpose of the study. The choice of purposive sampling was considered to be dictated by the very purpose of the research (Daniel, 2012), which concerns the investigation of Greek consumers' behaviour in the digital age.

The choice of purposive sampling and in order to ensure the participation of 200 Greek consumers, was combined with that of snowball sampling, with which each respondent participating in a questionnaire survey, suggests the completion of this questionnaire to other potential respondents (Daniel, 2012).

More specifically, the steps followed for the collection of the sample of 200 respondents are as follows:

1. The researcher contacted personal acquaintances, which are active on the internet, and informed them on the details of this research. Then she asked them to complete the questionnaire. Those who agreed were contacted through an e-mail, and were directed to the free online survey tool, Google Forms, where the questionnaire was constructed.
2. The respondents that agreed to participate in the research, suggested the completion of the questionnaire to their acquaintances, of which the ones who agreed to participate

once more suggested the completion of the questionnaire to their acquaintances. This process was continued until the sample of 200 respondents was reached.

3.3.1 Sample demographic characteristics

According to the responses provided by the 200 respondents, the sample presents the following demographic characteristics:

1. The female respondents are, with a percentage 55%, the majority of the sample:

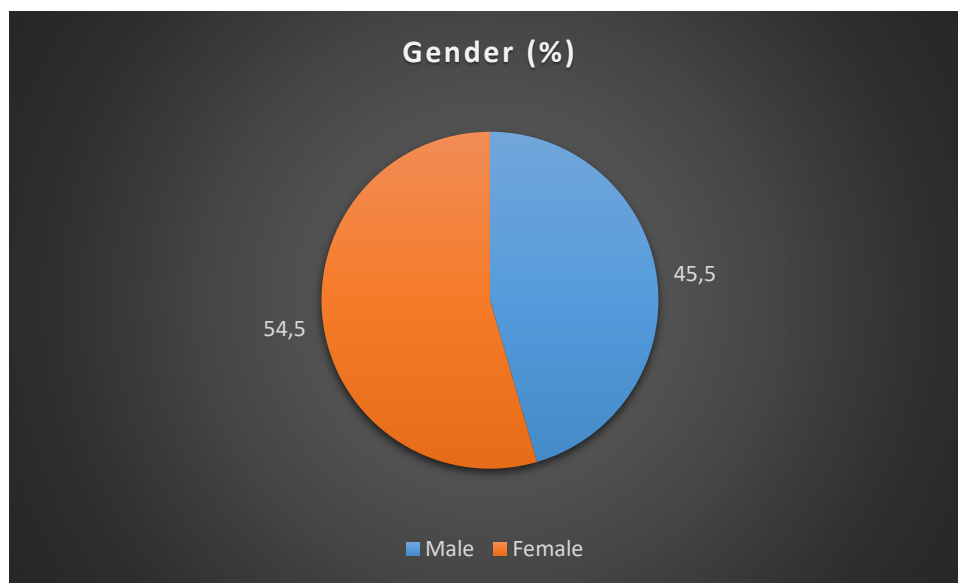


Figure 3.1: Respondents' gender

2. The respondents belonging in the age group 18 to 25 years old are, with a percentage 59.5%, the majority of the sample. This majority is followed by the respondents belonging in the age group 26 to 35 years old (26.5%). Finally, the respondents aged between 36 to 45 years old and above 46 years old have an equal percentage of 7%.

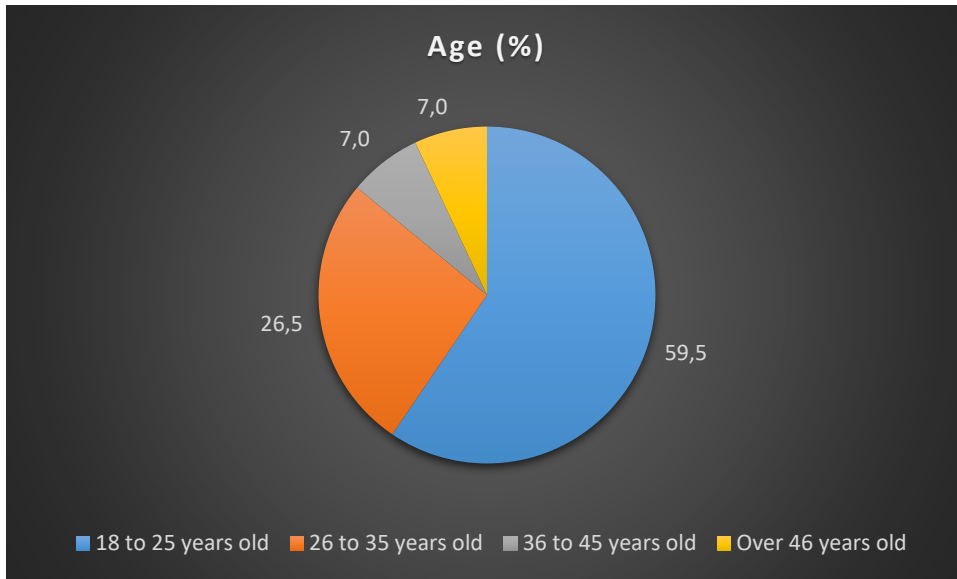


Figure 3.2: Respondents' age

- The respondents, who have graduated from higher education, are, with a percentage 60.5%, the vast majority of the sample. This majority is followed by the respondents, who hold a post-graduate degree (29.5%). On the other hand, only 0.5% and 1% have either graduated from primary education or hold a PhD respectively.

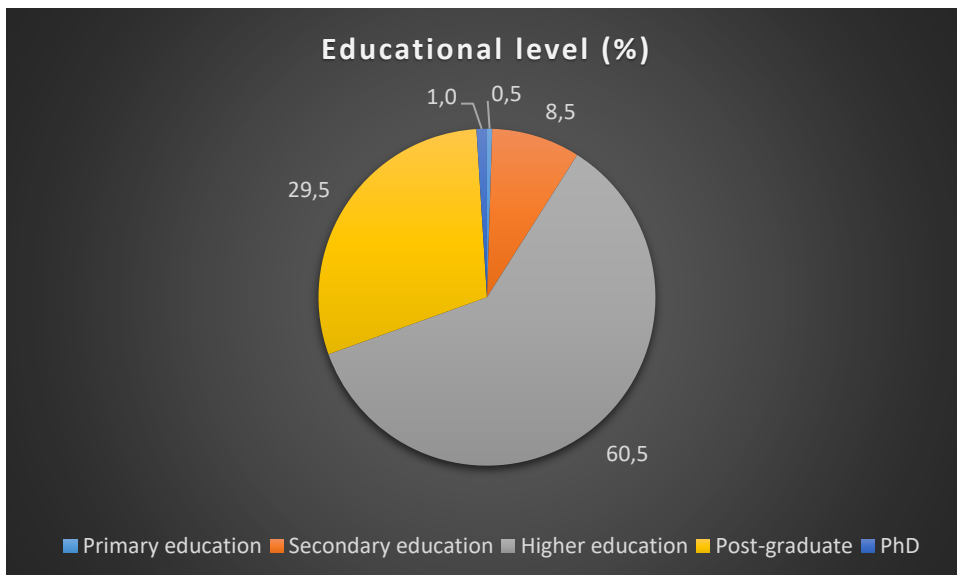


Figure 3.3: Respondents' educational level

4. The private employees are, with a percentage 55.5%, the vast majority of the sample. This majority is followed by the respondents, who are students (25.5%). On the other hand, only 0.5% and 2% who have either retired or stated a professional status other than those provided by the possible answers, respectively. It has to be noted that from those who chose other as an answer, three stated being unemployed, and one working as military staff.

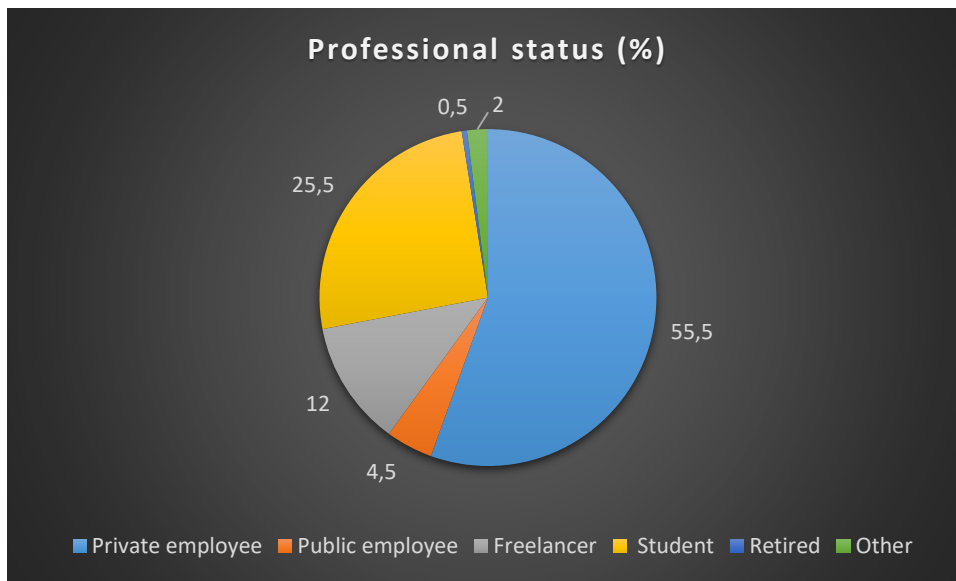


Figure 3.4: Respondents' professional status

3.4 Research procedure

The survey was conducted between 1/05/2021 and 20/05/2021 and the questionnaires were sent via e-mail and after their completion selected via Google Forms. The results were then statistically processed using the statistical software PSPP and Microsoft Excel.

CHAPTER 4: Presentation and Analysis of the Results

4.1 Statistical representation of the results

After the demographic characteristics' questions, the answers of which are presented in the previous Chapter, the questionnaire proceeds with questions related to the use of the internet. More specifically, and to ensure, as already mentioned, that the totality of the respondents use the internet, the first questions asked the respondents if they are indeed active on the internet. As expected, all respondents responded as being active on the internet.

The second question asked details on the ways the internet is accessed by the respondents. According to the respondents' answers, depicted in Figure 4.1, the vast majority of the respondents (88%) use both their mobile phone and laptop/ desktop computer to access the internet. In contrast, only a small percentage (1,5%) solely use their laptop/ desktop computer to access the internet.

From the above it can be concluded that the majority of the respondents are rather active users of the internet, as well as quite familiar with the different means of accessing it.

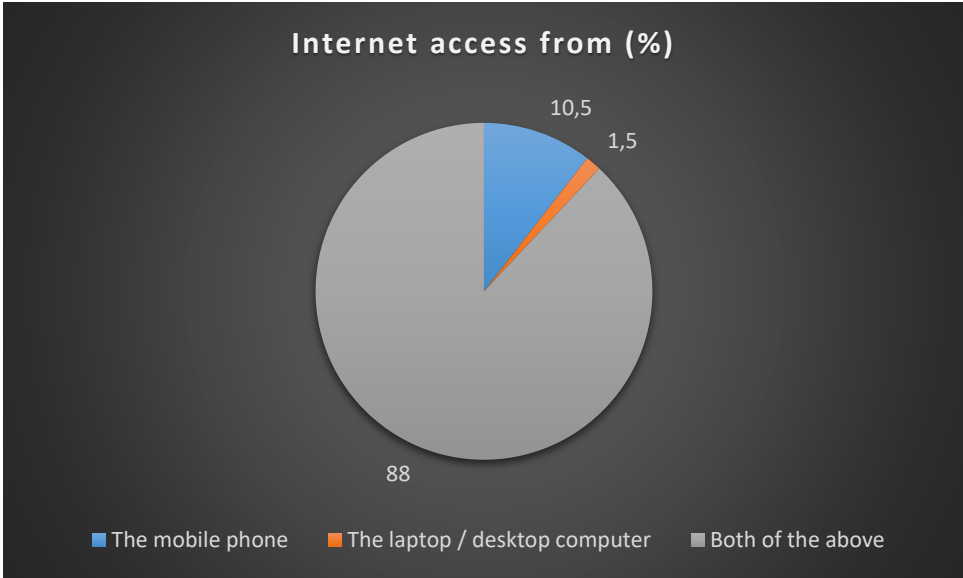


Figure 4.1: Access of the internet

The third question referred to the purposes for which the internet is used. It has to be noted that here the respondents had the ability to choose more than one answers.

According to the respondents' answers, depicted in Figure 4.2, the respondents use the internet for multiple different purposes, since they have in all given questions responded positively, thus, leading to a percentage above 70% (or 140 out of the 200 respondents). However, the most popular uses of the internet are the following three: i) internet use for social networking - for contact with friends etc. (Facebook, Twitter, etc.) with 92%, ii) internet use to find out about products that interest the respondents with 97%, and iii) internet use for entertainment purposes (watching videos, movies, online games, etc.) with 84%.

Nonetheless, internet use to buy products is also quite popular, since it lacks only 1% (standing at 83%) from the third most popular internet use purposes. The other three potential answers stand with relatively lower percentages, varying from 71.5% to 73.5%.

It has also to be noted that four respondents also chose the answer other, to state that they also use the internet i) for all of the above purposes (2 respondents), ii) for personal entertainment (1 respondent), and iii) for anything useful the internet has to offer (1 respondent).

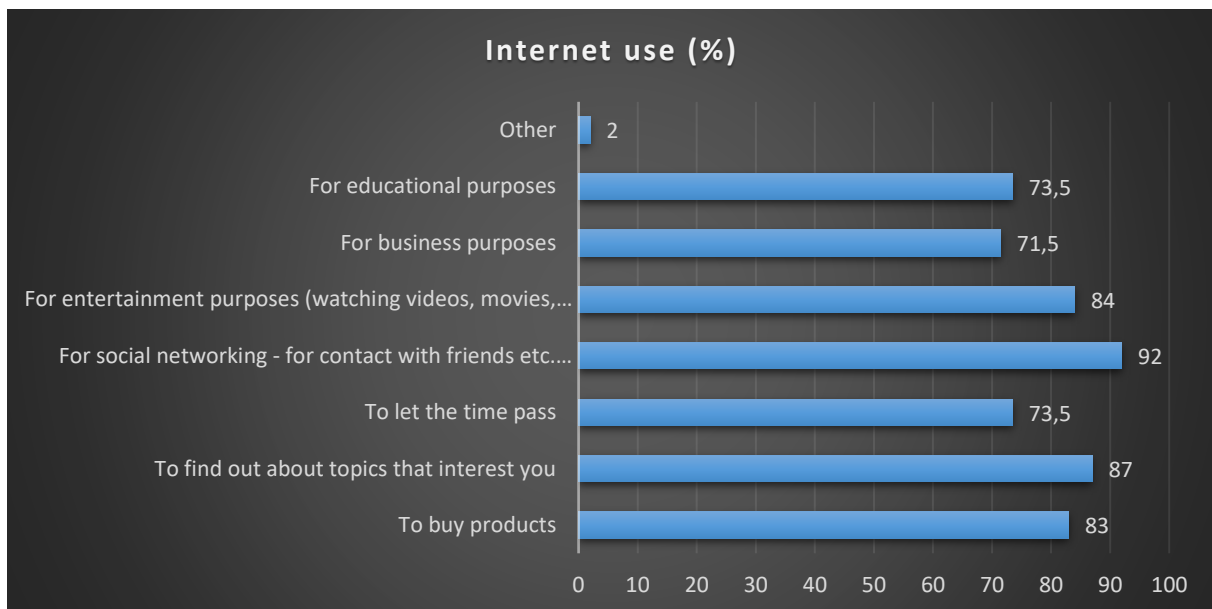


Figure 4.2: Usual purpose of internet use

The questionnaire then proceeds to the questions related to the explicit use of the internet for purchase purposes. The first question here asked the respondents to state the frequency by which they shop online.

According to the respondents' answers, depicted in Figure 4.3, the respondents with a percentage 53% answered that shop online once or twice a month. The next popular frequency was that of once or twice a year (21.5%). It has to be noted that the percentage of the respondents that stated shopping online every day is 14%. In contrast, only 4 respondents (2%) stated that they never use the internet to shop online.

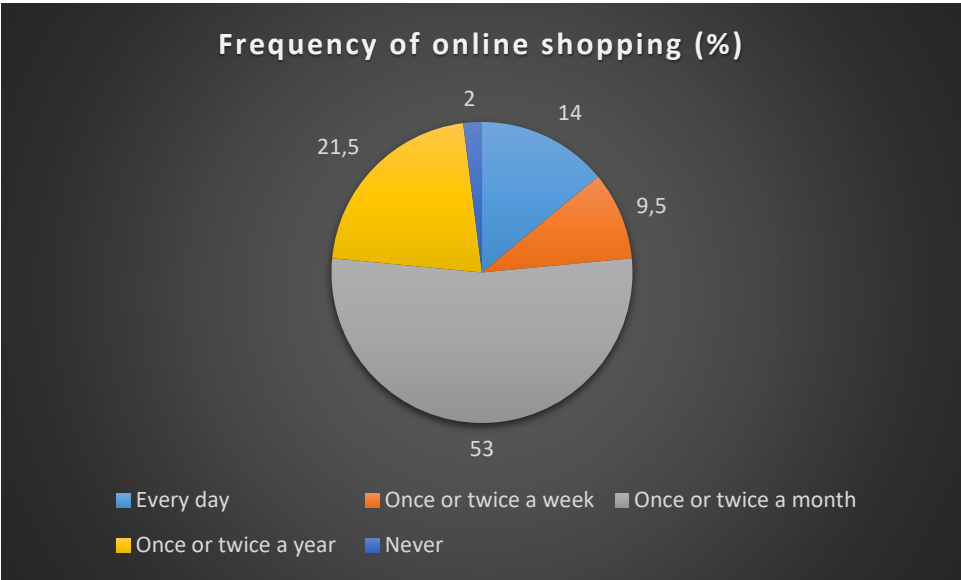


Figure 4.3: Frequency of online shopping

It has to be noted that three of the four respondents who never shop online share the following common characteristics: they are all women, aged 18 to 25 years old, and students of the higher education. The fourth respondent is, on the other hand, is also a woman but of an older age (over 46 years old), who is also of a higher education educational level, and a freelancer. In addition, all seem rather active on internet, since they access it from both their mobile and laptop/ desktop computer.

The fact that the three are rather young seems to be in contrast to what the researcher expected, i.e., that the respondents not choosing to shop online would be mainly of an older age, and consequently, not so familiar with the use of the internet. In this context, contradicting is the fact that all four participants are rather active in the use of the internet, since it would

seem only natural for them to be also familiarized with the use of the internet for making product and/ or service purchases. Nonetheless, since the respondents who choose not to shop online are only four, it cannot be said with confidence that their characteristics express the characteristics other Greek consumers not shopping online would also present.

The next question asked the four respondents who never shop online, to state the reasons they choose to do so; once more the respondents were allowed to choose more than one answers. It has to be noted that with this question, these four respondents completed the questionnaire, i.e., did not participate in the remaining questions of the survey.

According to the respondents' answers, depicted in Figure 4.4, the most popular reason for not choosing to shop online is that the respondents do not want to use personal data, such as their credit / debit card data (75%). This is followed by their respondents who prefer to find out the quality of the products directly via eye contact, touch, etc. (50%). All other possible answers stand with a percentage 25%.



Figure 4.4: Reasons for not choosing to shop online

The above answers seem to give a clearer picture why the four respondents, in spite of being young in their majority, as well as rather active on the internet, do not shop online; the issue of not trusting online shopping procedures and the preference for direct contact with the potentially purchased product direct towards the conclusion that age or internet use are

irrelevant when deciding about shopping online or not. Instead, the attitude towards two of the most prominent features or even “drawbacks” of online shopping is the determinant for choosing to shop online or not.

This conclusion seems to be further verified in the next question, where the respondents who do indeed shop online (196 out of 200 respondents), were asked to continue with the completion of the questionnaire by being asked the reasons why they choose to shop online. It has to be noted that here the respondents had the ability to choose more than one answers.



Figure 4.5: Reasons for choosing to shop online

According to the respondents’ answers, depicted in Figure 4.5, the respondents shop online for multiple different reasons. However, the most popular are the following three: i) time saving with 64.3%, ii) finding better prices compared to conventional stores with 58.7%, and iii) finding more variety with 52%.

Nonetheless, shopping online because it is easier and more convenient than visiting conventional stores is also a popular reason, since it lacks only 2.5% (standing at 49.5%) from the third most popular reason. In contrast, considering online shopping as reliable/ secure seemed to be the least popular reason (only 3.6%).

It has also to be noted that seven respondents (3.6%) chose the answer other, to state that they also choose to shop online because i) the stores are closed due to the pandemic of COVID-19 (3 respondents), ii) they relieve different emotional problems (1 respondent), iii) it is necessary in some cases (1 respondent), iv) they simply like shopping online (1 respondent), and v) the product I like to purchase is available only on the internet (1 respondent).

From the above it becomes apparent that the positive attitude towards the advantages online shopping presents against shopping in conventional stores is the reason why the respondents have indeed decided to make online purchases.

Next, the respondents were asked if they consider buying products online an easy or difficult task. According to the respondents' answers, depicted in Figure 4.6, the respondents in their vast majority (76%) consider buying products online either easy (42.5%) or very easy (33.5%). In contrast only 2% consider buying products online either difficult (1.5%) or very difficult (0.5%).

The fact that the majority consider online shopping an easy or even a very easy task seems to imply that the respondents have become quite familiarized with its procedures or that indeed online shopping has managed to be developed in such a manner as to make the people who choose to use it a rather simple and easy task,



Figure 4.6: *Buying products online is easy or difficult*

The next question referred to the way shopping online is completed. According to the respondents' answers, depicted in Figure 4.7, the respondents in their majority (59.5%) complete their online purchases by paying with their credit/ debit card. This majority is followed by the option of paying with cash on delivery (38%). Finally, paying by check is considered the least popular method to make online purchases (1%).

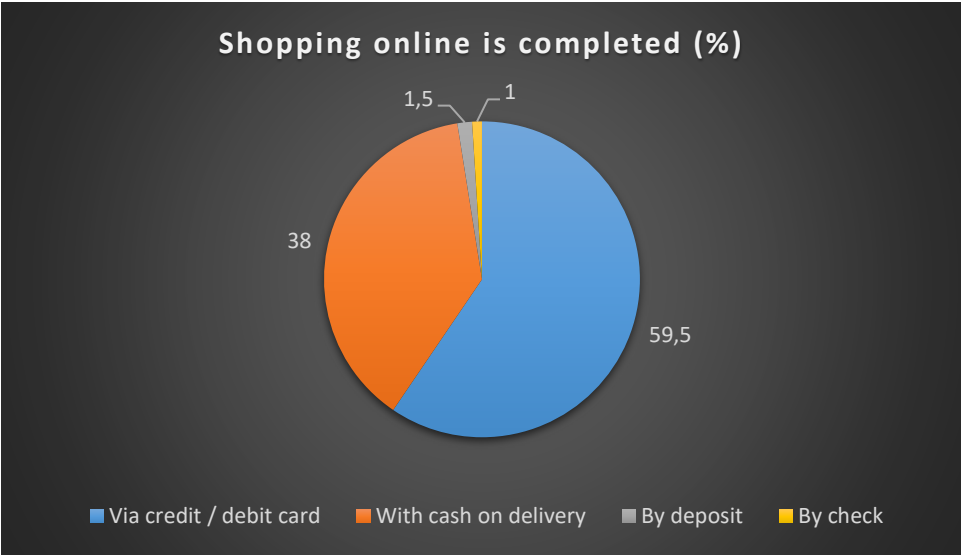


Figure 4.7: Method of completing online shopping

Here it seems as many of the respondents trust online shopping to an extent that does not make them feel that if they disclose their credit/ debit card data, these data will not be secure. However, many are also the ones, who maybe and due to safety reasons, choose the more secure and conventional methods of paying with cash on delivery, by deposit or even by check. Nonetheless, the respondents' choice may actually be the product of the alternative payment methods provided by the different online stores. For example, most international online stores provide only one payment option, i.e., that of paying via credit/ debit card; thus, their customers are somewhat “forced” to make their payment via credit/ debit card. Apart from that many international as well as Greek online stores, add an extra fee when their customers choose to pay with cash on delivery; consequently, the customers who do not wish to pay this extra fee, choose to pay via credit/ debit card.

In the thirteenth question the respondents were asked to explain what they do if they are not satisfied with the product they received. According to the respondents' answers, depicted in

Figure 4.8, the respondents in their majority (45.5%) proceed to the change / replacement of the product. This majority is followed by the option of Proceeding with the return of the product / requesting a refund of money (30.5%). Finally, the last popular option is that of keeping the product, but not buying anything again from the specific online store (22%).

It has to be noted that four respondents chose the answer other, to state that they i) act depending on the circumstance (2 respondents), ii) make a call to the company and settle the problem (1 respondent), and iii) there has never been a situation, when they felt the product, they purchased, was unsatisfactory (1 respondent).

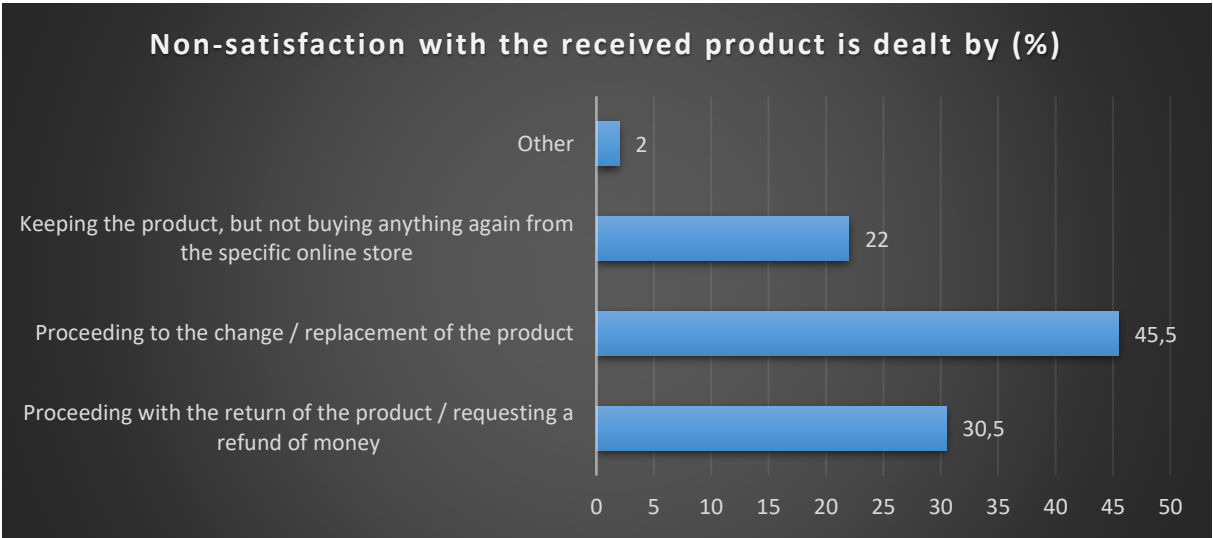


Figure 4.8: Dealing with non-satisfaction by the received product

The next question asked the respondents to state which products they usually choose to purchase online. It has to be noted that here the respondents had the ability to choose more than one answers.

According to the respondents’ answers, depicted in Figure 4.9, the respondents shop a variety of different products online. However, the most popular are the following three: i) clothes and shoes with 75%, ii) travel and other tickets with 53.1%, and iii) electronic/ electrical devices with 50.5%. in contrast, the least popular products are electronic games (20.9%).

It has to be noted that seven respondents (3.6%) chose the answer other, to state that they also choose to purchase i) food (2 respondents), ii) household items (1 respondent), iii) mobile

talk time (1 respondent), iv) gifts and office supplies (1 respondent), and v) household consumption goods (1 respondent).

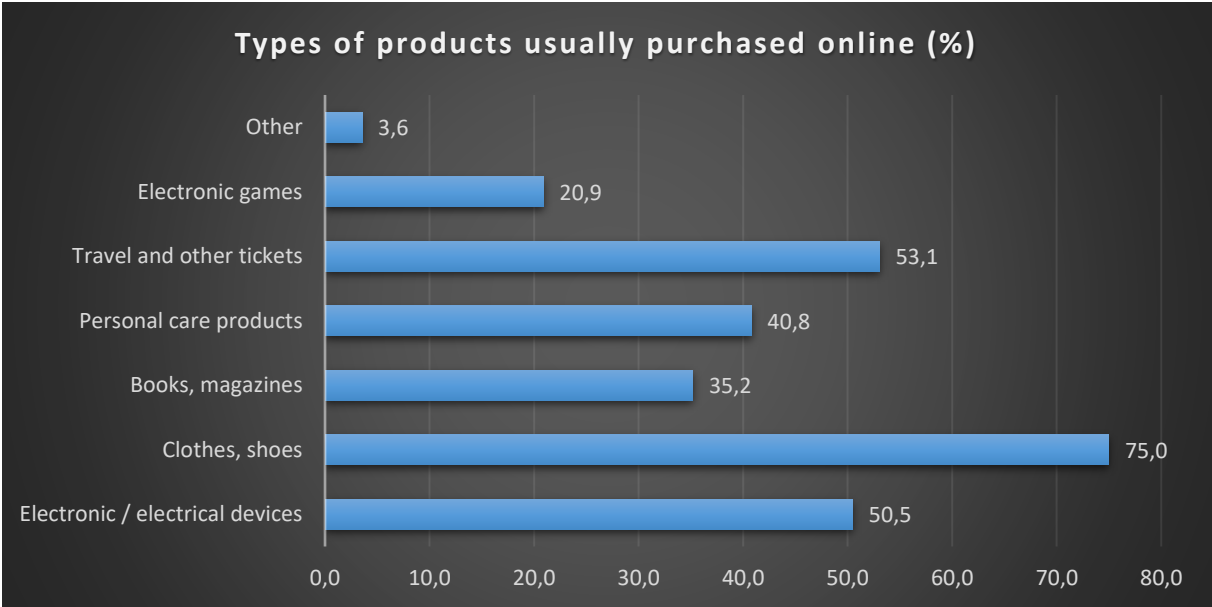


Figure 4.9: Types of products usually purchased online

The final question regarding the explicit use of the internet for purchase purposes asked the respondents to state for whom they make their online product purchases. It has to be noted that here the respondents had the ability to choose more than one answers.

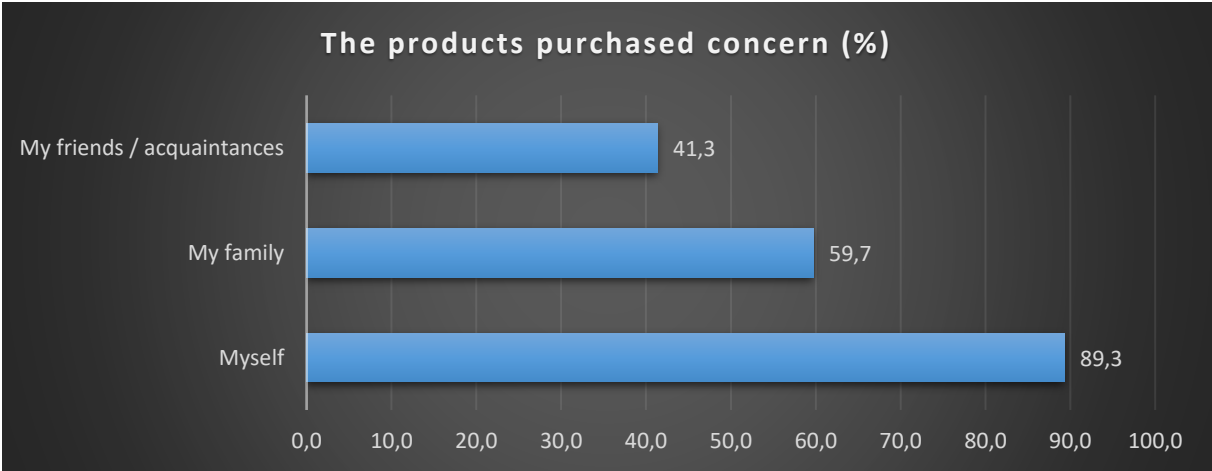


Figure 4.10: People for which online product purchases are made

According to the respondents' answers, depicted in Figure 4.10, the respondents primarily purchase products online for themselves (89.3%), then their family (59.7%), and last for their friends/ acquaintances (41.3%).

Next, the questionnaire proceeds with questions regarding the protection and use of personal data in online shopping. More specifically, the first question asked whether the respondents pay great attention to the protection of their personal data, when making online purchases.

According to the respondents' answers, depicted in Figure 4.11, the respondents in their vast majority (80.1%) either strongly agree (55.1%) or agree (25%) with the particular sentence. In contrast only 4.6% either disagree (3.1%) or strongly disagree (1.5%); low is also the percentage of those who neither disagree nor disagree (15.3%).

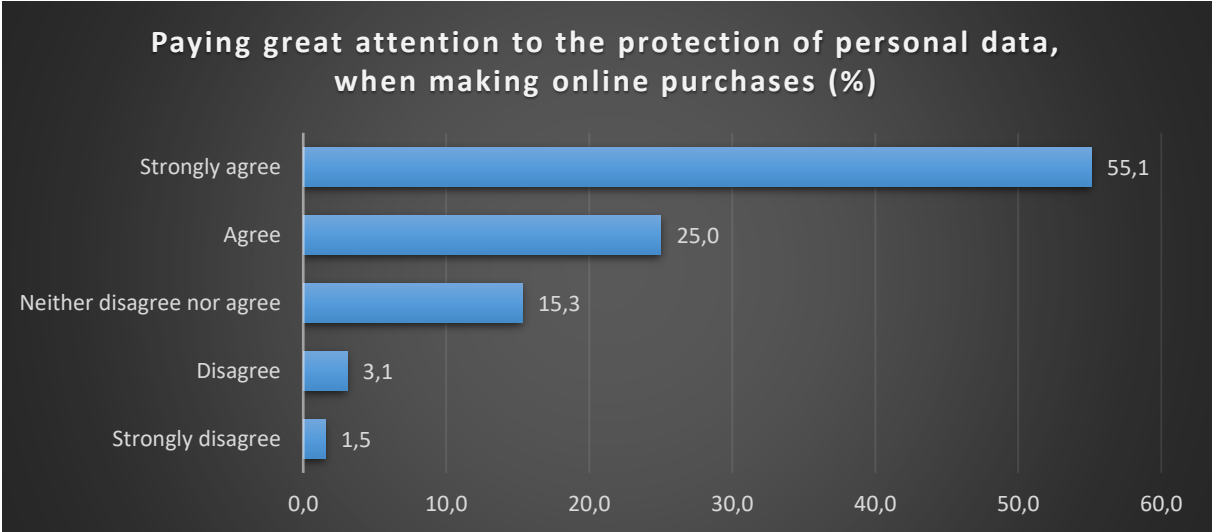


Figure 4.11: *Paying great attention to the protection of personal data, when making online purchases*

The second question asked the respondents whether the online stores from which they make online purchases explicitly inform them that the personal data they have disclosed will be processed, and when they will be processed.

According to the respondents' answers, depicted in Figure 4.12, the respondents in their majority (50.5%) either strongly agree (14.8%) or agree (35.7%) with the particular sentence. In contrast only 15.3% either disagree (10.2%) or strongly disagree (5.1%). Nonetheless, significant is the percentage of those who neither disagree nor disagree (34.2%).

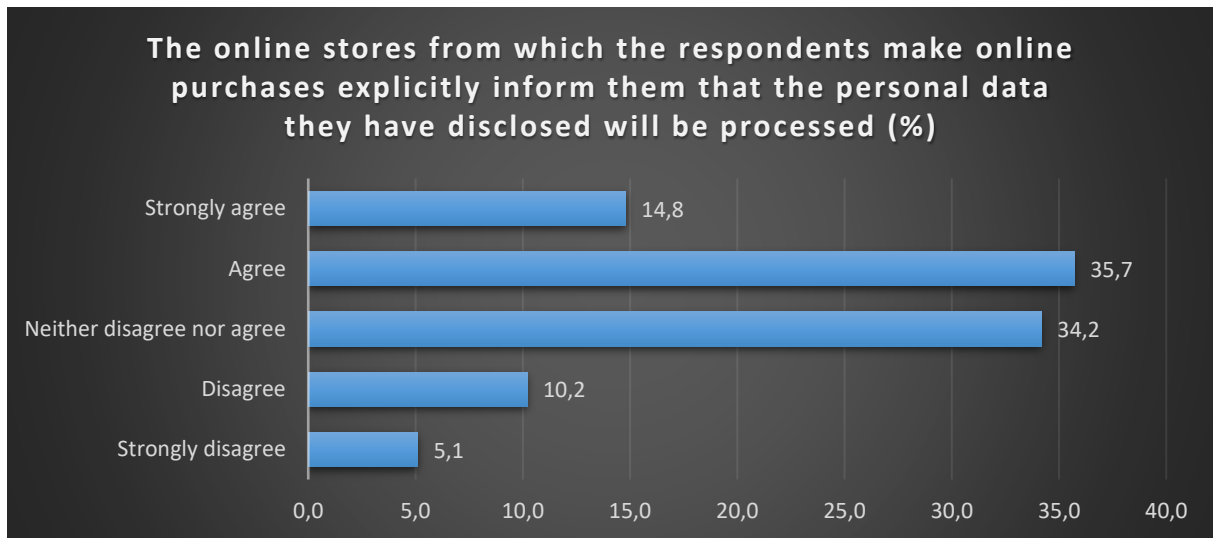


Figure 4.12: *The online stores from which the respondents make online purchases explicitly inform them that the personal data they have disclosed will be processed*

The third question asked the respondents whether they believe that from their online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service.

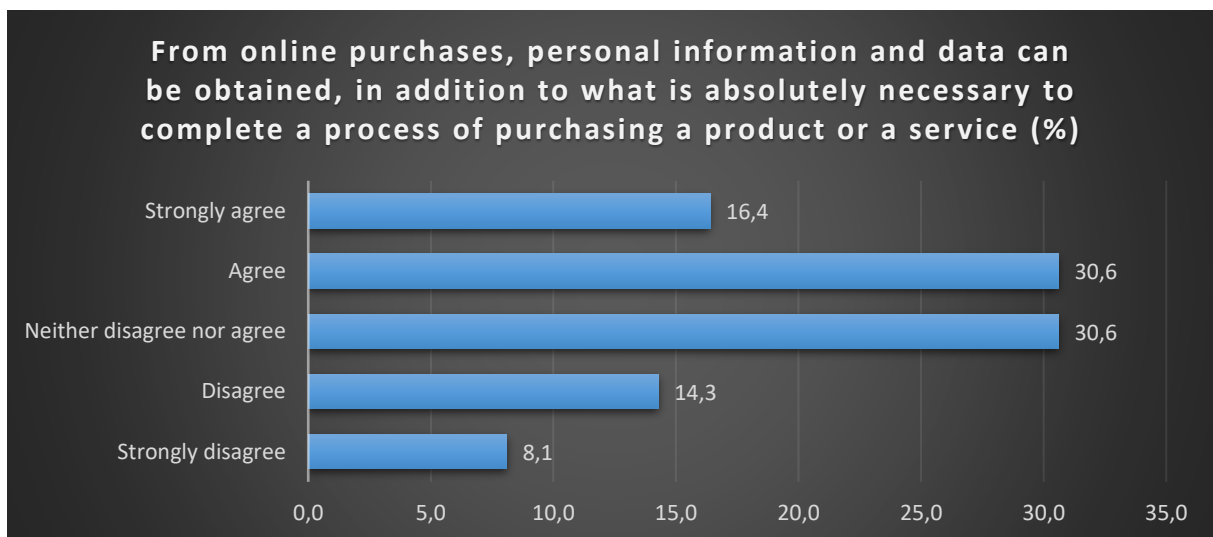


Figure 4.13: *From online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service*

According to the respondents' answers, depicted in Figure 4.13, the respondents in their majority (47%) either strongly agree (16.4%) or agree (30.6%) with the particular sentence. In contrast 22.4% either disagree (14.3%) or strongly disagree (8.1%). Nonetheless, significant is the percentage of those who neither disagree nor disagree (30.6%).

The next question asked the respondents whether online stores store their personal data only for the time required to complete the purchase and shipment of the order.

According to the respondents' answers, depicted in Figure 4.14, the respondents in their majority (37.2%) either strongly agree (7.1%) or agree (30.1%) with the particular sentence. In contrast 29.1% either disagree (21.4%) or strongly disagree (7.7%). Nonetheless, significant is the percentage of those who neither disagree nor disagree (33.7%).



Figure 4.14: Online stores store personal data only for the time required to complete the purchase and shipment of the order

The fifth question asked the respondents whether online stores process their personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage.

According to the respondents' answers, depicted in Figure 4.15, the respondents in their majority (52%) either strongly agree (13.8%) or agree (38.2%) with the particular sentence. In contrast 12.3% either disagree (8.7%) or strongly disagree (3.6%). Nonetheless, significant is the percentage of those who neither disagree nor disagree (35.7%).

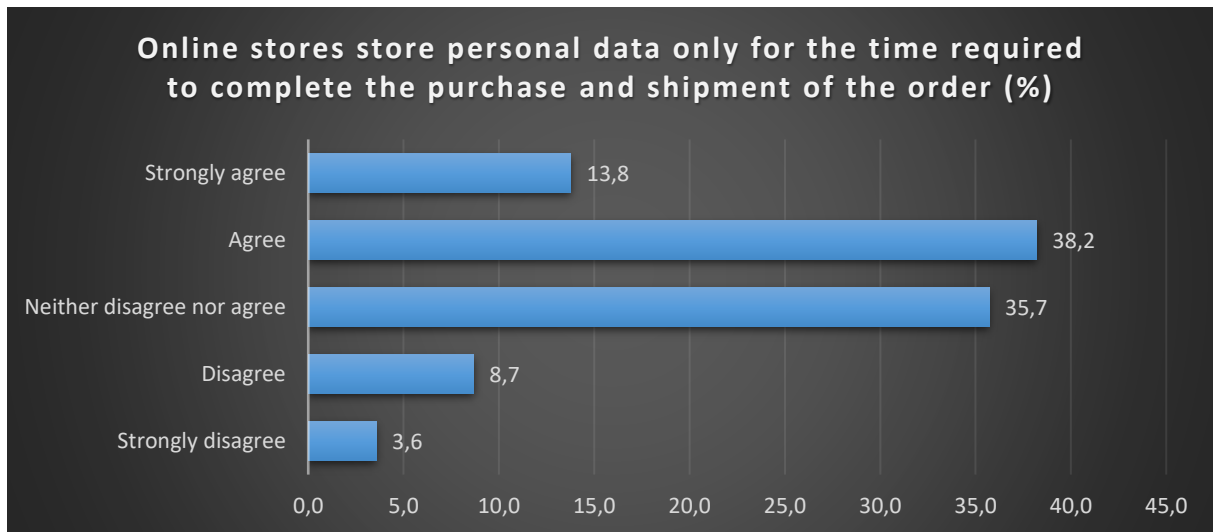


Figure 4.15: Online stores process personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage

The next question asked the respondents whether the cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping.



Figure 4.16: Cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping

According to the respondents' answers, depicted in Figure 4.16, the respondents in their significant majority (68.4%) either strongly agree (29.6%) or agree (38.8%) with the particular sentence. In contrast only 7.6% either disagree (5.6%) or strongly disagree (3.6%). Nonetheless, significant is the percentage of those who neither disagree nor disagree (29.6%).

The next and final question asked the respondents whether in order for online stores to install cookies for the purpose of digital advertising and/ or statistical analysis, they must give their consent.

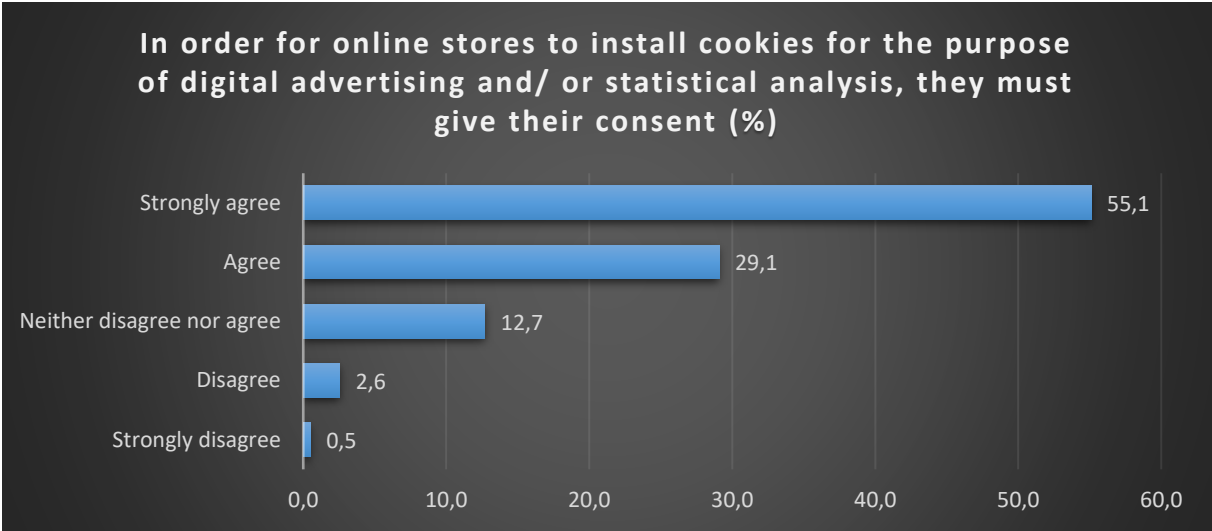


Figure 4.17: In order for online stores to install cookies for the purpose of digital advertising and/ or statistical analysis, respondents must give their consent

According to the respondents' answers, depicted in Figure 4.17, the respondents in their vast majority (84.2%) either strongly agree (29.1%) or agree (55.1%) with the particular sentence. In contrast only 3.1% either disagree (2.6%) or strongly disagree (0.5%). Nonetheless, significant is the percentage of those who neither disagree nor disagree (12.7%).

4.2 Investigation of the relationship between the dependent and independent variables

In order to investigate the potential relationship between the independent (gender, age, educational level, and professional status) and dependent variables, the method chosen to be applied is that of the regression analysis, which is one of the most popular methods used when trying to assess whether or not for some of the questions a statistically significant estimate may emerge for the effect of demographic characteristics on respondents' answers. For the regression analysis to be performed, the answers with answers, such as very easy..., very difficult, and strongly disagree..., strongly agree are grouped as follows:

1. Very easy and easy were grouped as simply easy, and very difficult, and difficult as simply difficult
2. Strongly disagree and disagree were grouped as simply disagree, and strongly agree, and agree as simply agree.

It has to be noted that both above methods are used only for the questions referring to the respondents who make online purchases. The reason for this is that the respondents who stated they do not make online purchases are so few that a statistically significant relationship between the demographic characteristics of the respondents and their responses will not actually be possible to be generalized as to express any "reality" about these respondents.

It has also to be noted that the above methods are not used for the questions, for which the respondents were given the ability to choose multiple answers. Thus, questions 7, 10, 14, and 15 have been omitted from the analysis.

As already mentioned, the regression analysis is performed for all four demographic characteristics of the respondents in conjunction with the different questions of the questionnaire.

Thus, for the gender of the respondents and making a null hypothesis that there are no significant regressors, it is examined whether gender can be used to obtain a statistically significant estimate of the respondents' responses, as well as whether the statistics for this estimate are correct. The results of the regression analysis are presented in the Table 4.1.

Table 4.1: Regression analysis of the respondents' gender

	Question	Beta	R²	p	95% coefficient interval for B
Questions regarding the use of the internet					
1	Ways the internet is accessed by the respondents	-0.10	0.00	0.179	From -0.30 to 0.60
Questions about using the internet for purchase purposes					
1	Frequency of online shopping	0.02	0.00	0.742	From -0.22 to 0.31
2	Buying products online is easy or difficult	-0.11	0.01	0.137	From -0.40 to 0.06
4	Method of completing online shopping	0.07	0.00	0.336	From -0.08 to 0.25
5	Dealing with non-satisfaction by the received product	-0.03	0.00	0.678	From -0.27 to 0.17
Questions regarding the protection and use of personal data in online shopping					
1	Paying great attention to the protection of personal data, when making online purchases	-0.14	0.01	0.056	From -0.52 to 0.01
2	The online stores from which the respondents make online purchases explicitly inform them that the personal data they have disclosed will be processed	-0.06	0.00	0.394	From -0.42 to 0.16
3	From online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service	-0.02	0.00	0.782	From -0.37 to 0.28
4	Online stores store personal data only for the time required to complete the purchase and shipment of the order	0.04	0.00	0.591	From -0.22 to 0.38
5	Online stores process personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage	0.07	0.00	0.332	From -0.14 to 0.40
6	Cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping	0.04	0.00	0.607	From -0.21 to 0.36
7	In order for online stores to install cookies for the purpose of digital advertising and/ or statistical analysis, respondents must give their consent	-0.01	0.01	0.932	From -0.25 to 0.23

Considering that a statistically significant estimate can only be obtained if the p value is less than 0.05, as it becomes apparent from Table 4.1, the null hypothesis cannot be rejected for any of the questions. Therefore, the respondents' gender cannot be used to predict the respondents' answers.

Next, for the age of the respondents and making a null hypothesis that there are no significant regressors, it is examined whether age can be used to obtain a statistically significant estimate

of the respondents' responses, as well as whether the statistics for this estimate are correct. The results of the regression analysis are presented in Table 4.2.

Table 4.2: Regression analysis of the respondents' age

	Question	Beta	R²	p	95% coefficient interval for B
Questions regarding the use of the internet					
1	Ways the internet is accessed by the respondents	-0.10	0.01	0.842	From -0.09 to 0.11
Questions about using the internet for purchase purposes					
1	Frequency of online shopping	0.04	0.00	0.567	From -0.11 to 0.19
2	Buying products online is easy or difficult	0.11	0.01	0.131	From -0.03 to 0.23
4	Method of completing online shopping	0.12	0.01	0.086	From -0.01 to 0.17
5	Dealing with non-satisfaction by the received product	-0.06	0.00	0.421	From -0.17 to 0.07
Questions regarding the protection and use of personal data in online shopping					
1	Paying great attention to the protection of personal data, when making online purchases	-0.06	0.00	0.307	From -0.23 to 0.07
2	The online stores from which the respondents make online purchases explicitly inform them that the personal data they have disclosed will be processed	-0.09	0.00	0.212	From -0.27 to 0.06
3	From online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service	0.04	0.00	0.570	From -0.13 to 0.24
4	Online stores store personal data only for the time required to complete the purchase and shipment of the order	-0.01	0.01	0.928	From -0.18 to 0.16
5	Online stores process personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage	-0.08	0.00	0.238	From -0.24 to 0.06
6	Cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping	-0.05	0.00	0.479	From -0.22 to 0.10
7	In order for online stores to install cookies for the purpose of digital advertising and/ or statistical analysis, respondents must give their consent	-0.10	0.01	0.144	From -0.03 to 0.23

Considering that a statistically significant estimate can only be obtained if the p value is less than 0.05, as it becomes apparent from Table 4.2, the null hypothesis cannot be rejected for any

of the questions. Therefore, the respondents' age cannot be used to predict the respondents' answers.

Next, for the educational level of the respondents and making a null hypothesis that there are no significant regressors, it is examined whether age can be used to obtain a statistically significant estimate of the respondents' responses, as well as whether the statistics for this estimate are correct. The results of the regression analysis are presented in Table 4.3.

Table 4.3: Regression analysis of the respondents' educational level

	Question	Beta	R²	p	95% coefficient interval for B
Questions regarding the use of the internet					
1	Ways the internet is accessed by the respondents	0.10	0.00	0.182	From -0.05 to 0.24
Questions about using the internet for purchase purposes					
1	Frequency of online shopping	0.11	0.01	0.774	From -0.18 to 0.24
2	Buying products online is easy or difficult	0.00	0.01	0.985	From -0.18 to 0.18
4	Method of completing online shopping	-0.26	0.6	0.000	From -0.37 to -0.12
5	Dealing with non-satisfaction by the received product	-0.01	0.00	0.838	From -0.19 to 0.16
Questions regarding the protection and use of personal data in online shopping					
1	Paying great attention to the protection of personal data, when making online purchases	-0.06	0.00	0.391	From -0.30 to 0.12
2	The online stores from which the respondents make online purchases explicitly inform them that the personal data they have disclosed will be processed	0.02	0.00	0.757	From -0.20 to 0.27
3	From online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service	0.00	0.01	0.981	From -0.26 to 0.25
4	Online stores store personal data only for the time required to complete the purchase and shipment of the order	0.04	0.00	0.548	From -0.16 to 0.31
5	Online stores process personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage	0.00	0.01	0.931	From -0.22 to 0.21
6	Cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping	0.21	0.04	0.003	From 0.12 to 0.57
7	In order for online stores to install cookies for the purpose of digital advertising and/ or statistical analysis, respondents must give their consent	0.07	0.00	0.346	From -0.10 to 0.28

Considering that a statistically significant estimate can only be obtained if the p value is less than 0.05, it is found that the null hypothesis can be rejected for the following two questions:

1. “How do you shop online?”
2. “The cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping”.

Therefore, the educational of the participants could only be used to predict the respondents/ answers to these two questions. It is worth noting at the same time that since 0 is not between the upper and lower 95% confidence interval for beta, the statistics for this estimate are correct.

To further examine how the educational level contributes to the evaluation of these two answers, the answers of the participants by educational level, were combined in Pivot Tables, with the results being presented in Figures 4.18 and 4.19.

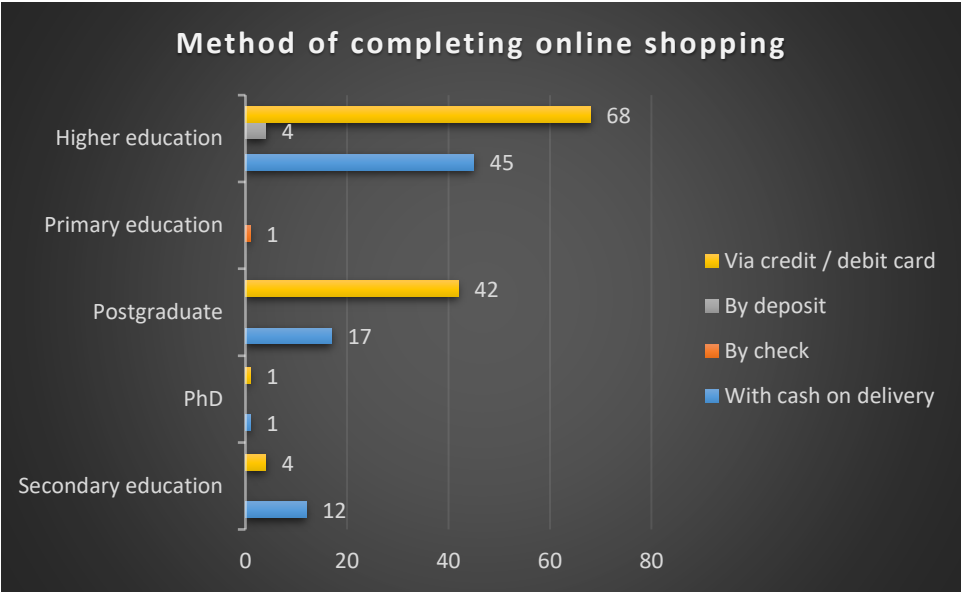


Figure 4.18: Method of completing online shopping by the respondents’ educational level

As seen from Figure 4.18, the respondents, who have graduated from higher education, followed by the respondents, who hold a post-graduate degree, are the ones who mainly choose to pay via credit / debit card. In contrast, the respondents, who have graduated from all educational levels, up to the higher education, seem to prefer alternative payment methods to paying via credit / debit card, while the respondents who hold a PhD seem completely divided.

Thus, the only certain conclusion that can be drawn is that the respondents, who have either graduated from higher education or hold a post-graduate degree, seem to prefer to pay via credit / debit card; other conclusions, as for example that the respondents prefer one payment method or another based on an increased educational level, cannot be drawn. This, of course, may be due to fact that the respondents, who shop online, in their vast majority either higher education or post-graduate degree holders.



Figure 4.19: Cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping by the respondents' educational level

As seen from Figure 4.19, the respondents that the respondents, who have graduated from higher education, followed by the respondents, who hold a post-graduate degree are the ones who mainly choose to pay via credit / debit card. In contrast, the respondents, who have graduated from all educational levels, up to the higher education, seem more divided. On other hand, the opinions of respondents who hold a PhD seems in accordance to the responses of the higher education and post-graduate degree holders.

Thus, it can be concluded that as the educational level increases, so does the opinion that cookie functions of the online stores do indeed go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping.

Next, for the professional status of the respondents and making a null hypothesis that there are no significant regressors, it is examined whether age can be used to obtain a statistically significant estimate of the respondents' responses, as well as whether the statistics for this estimate are correct. The results of the regression analysis are presented in Table 4.4.

Table 4.4: Regression analysis of the respondents' professional status

Question	Beta	R ²	p	95% coefficient interval for B	
Questions regarding the use of the internet					
1	Ways the internet is accessed by the respondents	0.12	0.01	0.097	From -0.03 to 0.35
Questions about using the internet for purchase purposes					
1	Frequency of online shopping	0.14	0.01	0.055	From 0.00 to 0.18
2	Buying products online is easy or difficult	0.05	0.00	0.514	From -0.05 to 0.11
4	Method of completing online shopping	0.13	0.01	0.067	From -0.01 to 0.14
5	Dealing with non-satisfaction by the received product	0.13	0.01	0.069	From -0.01 to 0.33
Questions regarding the protection and use of personal data in online shopping					
1	Paying great attention to the protection of personal data, when making online purchases	0.06	0.01	0.434	From -0.13 to 0.29
2	The online stores from which the respondents make online purchases explicitly inform them that the personal data they have disclosed will be processed	-0.05	0.00	0.501	From -0.31 to 0.15
3	From online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service	-0.02	0.00	0.806	From -0.29 to 0.22
4	Online stores store personal data only for the time required to complete the purchase and shipment of the order	-0.04	0.00	0.594	From -0.30 to 0.17
5	Online stores process personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage	-0.03	0.00	0.719	From -0.26 to 0.18
6	Cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping	0.05	0.01	0.463	From -0.14 to 0.22
7	In order for online stores to install cookies for the purpose of digital advertising and/ or statistical analysis, respondents must give their consent	0.12	0.01	0.097	From -0.03 to 0.35

Considering that a statistically significant estimate can only be obtained if the p value is less than 0.05, as it becomes apparent from Table 4.2, the null hypothesis cannot be rejected for any of the questions. Therefore, the respondents' professional status cannot be used to predict the respondents' answers.

CHAPTER 5: Conclusions

5.1 Summary and final conclusions

The purpose of this research was to investigate the behaviour of Greek consumers in the digital age. More specifically, the investigation was related to Greek consumers' habits when shopping online, as well as to their perception in respect to the protection of their personal data during digital purchases.

For this purpose, to be accomplished, and following the rather detailed examination of the related literature review that was the basis for the development of this dissertation's research tool, a primary survey with the aid of a questionnaire took place. In this survey 200 Greek consumers, who use the internet and who come from all different regions from Greece, accepted the invitation to participate in the research. It has to be noted that from these 200 questionnaire respondents, the majority were women, of a rather young age, since they primarily aged between 18 and 25 years old, who have graduated from higher education, and who currently work as private employees.

The responses of the above 200 consumers provide as series of significant conclusions in relation to the way Greek consumers shop online, and in respect to the potential issues they believe may arise as a result of their choice to shop online.

More specifically, the majority of the respondents proved to be rather active users of the internet, as well as quite familiar with the different means of accessing it, since in they mainly choose to access the internet both via their mobile phone and their laptop/ desktop computer.

In addition, they use the internet for diverse reasons, with the foremost being for social networking - for contact with friends etc. (Facebook, Twitter, etc.), to find out about products that interest them, and for entertainment purposes (watching videos, movies, online games, etc.). Nonetheless, internet use to buy products is also quite popular.

This is further proved by the fact that only 4 of the 200 respondents never use the internet to shop online. As expected, and as stressed in the Literature Review Chapter, these four respondents mostly prefer to protect their personal data or even choose to find out the quality

of the products directly via eye contact, touch, instead of using the internet that cannot, at least with the present technology, support features, as touching potentially purchased products.

Similarly in accordance to the Literature Review Chapter, the 196 respondents, who mostly make online purchases once or twice a month, reason their choice to shop online on some of the most fundamental features of online shopping, i.e., time saving, better prices compared to conventional stores, and higher product variety.

From the negative and positive response to shop online, it indeed becomes apparent that the positive or negative attitude towards online shopping is the reason why the respondents have indeed decided to or not make online purchases.

Furthermore, and in respect to the habits of the Greek consumers when shopping online, the following were revealed: the respondents predominantly i) believe that online shopping is easy or even very easy, ii) choose to pay via credit/ debit card in spite of the associate “dangers”, iii) prefer to change or replace a product they find unsatisfactory, and finally iv) choose to use online shopping to purchase clothes and shoes, i.e., products whose unsatisfactory quality does not, of course, cost as much as for example buying an electronic/ electrical device. It has to be noted that the “risk” of making online purchases, is actually the result of the respondents’ choice to primarily buy products online for themselves. However, no such relationship was able to be proven.

It has to be noted that, in general, no statistically significant relationship was able to be proven between the respondents’ demographic characteristics, and their answers. One conclusion drawn, is the fact that as the educational level increases, so does the opinion that cookie functions of the online stores do indeed go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping. Another conclusion is that the respondents who hold a post-graduate degree, are the ones who mainly choose to pay via credit / debit card. In contrast, the respondents, who have graduated from all educational levels, up to the higher education, seem to prefer alternative payment methods to paying via credit / debit card, while the respondents who hold a PhD seem completely divided.

Nonetheless, by separately examining the answers of the respondents two additional observations can be made. Younger female respondents, who have graduated from higher education, yet with no statistically significant relationship, seem to consider online shopping is easy or even very easy with a greater percentage than males. The reason may be the fact that younger females, especially when having graduated from higher education, are more

accustomed in the use of the internet, including for shopping purposes than other female participants. In addition, and in comparison, to their male counterparts, females in general are more prone to shopping in general, and thus, probably also more prone to online shopping. This increased tendency for shopping has led them to more frequent online purchases, thus, making them more familiarized with online shopping. Ultimately, this leads them in believing that online shopping is easy or even very easy.

On the other hand, male respondents in general, yet again with no statistically significant relationship, seem to pay greater attention to the protection of their personal data, when making online purchases; this is irrespective of their age, educational level or even professional status. Thus, the male respondents seem more cautious when choosing to make online purchases. Maybe the reason for this is the fact that females, when finding the product, they choose to purchase it, without having second thoughts, i.e., in order to acquire the desired product, they are willing to be less cautious, when it comes to the purchase safety parameters, associated to it.

On the other hand, and when it comes to the protection and use of personal data in online shopping, most respondents seem to agree that paying great attention to the protection of personal data, when making online purchases is certainly one aspect of their behaviour, when choosing to make online purchases. This response seems only logical, if one considers that the respondents in their majority believe that from their online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service, while seem skeptical when it comes to believing that i) online stores store their personal data only for the time required to complete the purchase and shipment of the order, and ii) online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping.

Nonetheless, it seems that they trust that i) online stores store their personal data only for the time required to complete the purchase and shipment of the order, ii) online stores process their personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage, and iii) in order for online stores to install cookies for the purpose of digital advertising and/ or statistical analysis, respondents must give their consent.

From all above it can be generally concluded that, especially when it comes to the younger generation of the present Greek population, the internet has managed to acquire its own position

is relation to product/ and or services shopping. Indeed, modern Greek consumers have chosen to trust online shopping, in spite of acknowledging that it is certainly more “dangerous” than conventional stores when referring to the protection and use of personal data. Thus, it can be said that certainly online shopping with its safety drawbacks and convenience advantages is becoming a powerful factor in the Greek shopping market.

5.2 Future research

In order for the findings of this research to be further established and generalized, the recommendations for future research are developed as follows:

1. Expansion of the sample so as for the results to increase their validity and generalization for the whole Greek population.
2. Explicit categorization of the respondents based on demographic criteria, as for example, making a survey where older generations will be equally represented as the younger ones, to ascertain whether or not demographic characteristics define the answers of the participants.
3. Addition of further demographic characteristics, such as monthly income, to investigate whether or not the choice of online shopping is the choice of the general Greek population or the choice of the financially “privileged”.

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Appendix: Research Questionnaire

Demographic characteristics:

1) Gender:

Male

Female

2) Age:

18 to 25 years old

26 to 35 years old

36 to 45 years old

Over 46 years old

3) Educational level:

Primary education

Secondary education

Higher education

Postgraduate

PhD

4) Professional status:

Private employee

Public employee

Freelancer

Student

Retired

Other, please specify:

Questionnaire regarding the use of internet:

5) You access the internet from:

Your mobile phone

Your laptop / desktop

Both of the above

6) You usually use the internet (multiple choice option):

- To buy products
- To find out about topics that interest you
- To let the time pass
- For social networking - for contact with friends etc. (Facebook, Twitter, etc.)
- For entertainment purposes (watching videos, movies, online games, etc.)
- For business purposes
- For educational purposes
- Other, please specify:

Questions about using the internet for purchase purposes:

7) Are you active on the internet?

- Yes
- No

8) How often do you shop online?

- Every day
- Once or twice a week
- Once or twice a month
- Once or twice a year
- Never

If you answered never, proceed to question 9) and complete the questionnaire. If you answered anything else, proceed to question 10) and continue the questionnaire.

9) Which are the reasons you do not choose to shop online (multiple choice option):

- I do not believe that online shopping is reliable / secure
- I do not want to use personal data, such as my credit / debit card data
- I believe that the products will not meet their description
- I prefer to find out the quality of the products directly via eye contact, touch, etc.
- I prefer to have direct contact with/ receive direct service from the seller
- Other, please specify:

10) Which are the reasons you choose to shop online (multiple choice option):

- Because I find better prices compared to conventional stores
- Because I find more variety
- Because I find quality products more easily
- Because I save time
- Because it is easier and more convenient than visiting conventional stores
- Because I consider online shopping to be reliable/ secure
- Other, please specify:

11) Do you consider buying products online?

- Very easy
- Easy
- Neither easy / nor difficult
- Difficult
- Very difficult

12) How do you shop online?

- Via credit / debit card
- With cash on delivery
- By deposit
- By check

13) In case you are not satisfied with the product you received:

- I proceed with the return of the product / I request a refund of my money
- I proceed to change / replace the product
- I keep the product, but I do not buy anything else from the specific online store
- Other, please specify:

14) The purchases that you usually make online mainly concern the following products (multiple choice option):

- Electronic / electrical devices
- Clothes, shoes
- Books, magazines
- Personal care products
-

Travel and other tickets

Electronic games

Other, please specify:

15) The purchases that I usually make from the internet mainly concern (possibility of multiple choices):

Myself

My family

My friends / acquaintances

Questions regarding the protection and use of personal data in online shopping:

16) When making online purchases I pay great attention to the protection of my personal data:

Strongly disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

17) The online stores from which I make online purchases explicitly inform me that the personal data I have disclosed will be processed and when they will be processed:

Strongly disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

18) From my online purchases, personal information and data can be obtained, in addition to what is absolutely necessary to complete a process of purchasing a product or a service:

Strongly disagree

Disagree

Neither disagree nor agree

Agree

Strongly Agree

19) Online stores store my personal data only for the time required to complete the purchase and shipment of the order:

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

20) Online stores process my personal data in a way that guarantees their security, i.e., their protection from unauthorized or illegal processing and possible loss, destruction or damage:

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

21) The cookie functions of the online stores go far beyond the technically necessary, including the display of personalized ads in order to guide my online shopping:

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

22) In order for online stores to install cookies for the purpose of digital advertising and / or statistical analysis, I must give my consent:

- Strongly disagree
- Disagree
- Neither disagree nor agree
- Agree
- Strongly Agree

