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**Consumer Purchasing Behavior in E-Commerce Environment; The
importance of social presence and its effect on consumer trust.**

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I hereby declare that the work submitted is mine and that where I have made use of another's work, I have attributed the source(s) according to the Regulations set in the Student's Handbook.

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Abstract

The attitudes of consumers towards e-commerce are determined to a large extent by how much they trust it. The exploration of the factors that shape consumer trust in e-commerce is of paramount importance, since it can help companies to design their online stores in such a way that they can earn the trust of consumers and enjoy financial success. This report, which was completed through the conduct of a primary survey on 126 Greek consumers by using a questionnaire, attempts to investigate, on the one hand, the attitudes of consumers towards e-commerce, and on the other hand, the factors that affect the level of consumer trust in it. The results of the survey show that the participants in the survey choose e-commerce primarily to buy products and perform banking transactions. Some demographics, such as age and family income, seem to affect consumer attitudes towards e-commerce. With reference to the factors that affect consumer trust in e-commerce, the most important ones seem to be Perceived Security, Perceived Privacy, Vendor Image, and Web Quality. The only demographic characteristic of the participants that seems to differentiate these factors is age. These results can assist Greek enterprises to focus on specific aspects, in order for their online stores to be able to earn the trust of Greek consumers.

Keywords: E-commerce, Trust, Perceived Security, Perceived Privacy, Vendor Image, Web Quality.

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Introduction

The introduction of new technologies and information technology have also brought about tremendous change in the way that modern consumers think and behave, as well as in how they buy products and services. In recent years, a marked shift has been observed towards e-commerce, since, in this way, consumers can take advantage of these new opportunities and developments. In specific, through the use of e-commerce, consumers can make purchases without any limitations, in terms of place and time. Moreover, they have the opportunity, within a very short time, to test the products and services that can satisfy their needs, and also the prices that they will have to pay to obtain these products and services. In addition, through the applications that are available, consumers have the opportunity to be immediately updated on offers and take advantage of them. All the above parameters create value for consumers and explain the reason why e-commerce constantly increases its market share, compared to traditional commerce that takes place in physical (brick-and-mortar) shops (Pomportsis & Tsoufias, 2002; Shahriari et al., 2015; Vadwala & Vadwala, 2017).

However, major differences can be noticed, in terms of the degree of use of e-commerce by the citizens of various countries, which implies the possibility that the citizens of various countries are characterized by different levels of familiarity with new technologies, and they have also established different perceptions towards e-commerce (Hidayanto et al., 2014). The level of trust that consumers experience in e-commerce, largely affects the attitude that they adopt towards it, also affecting, as a result, the attempt and decision of companies to invest in it. Companies should be aware of all those elements that have a positive effect on the levels of consumer trust in e-commerce, in order for them to be able to determine their actions and strategies accordingly (Lee et al., 2018).

This report aspires to contribute to the already established knowledge about the factors that influence the levels of consumer trust in e-commerce, through the conduct of a relevant primary survey on 126 Greek consumers. In more detail, through the conduct of a survey on a sample of Greek consumers, it is attempted to examine their attitudes towards e-commerce, and also identify those factors that shape consumer trust. The results of this survey can help Greek companies to understand how they should utilize

e-commerce, in order to be able to earn consumer trust, and prove that their investment in e-commerce is profitable.

1. E-commerce

1.1 E-commerce, forms and key drivers

The evolution of technology and information science has changed the lifestyle of modern man, as well as the operation of businesses. More precisely, the Internet and the easy access that both firms and consumers have to it, along with the accessibility of computers and the increased ability of buying smart devices, have led to the establishment of new conditions of communication, information exchange, and the ability to buy and sell (Menaka & Seethal, 2018; Thomas & Jose, 2015). In more detail, the Internet has contributed to the facilitation of trade that takes place between firms and consumers, i.e. buying and selling products and services, which has resulted in the development of a new form of trade that is called e-commerce (Schneider, 2015). More specifically, e-commerce refers to the procedures of buying and selling, as well as transferring and exchanging products and services, which take place through computer networks (Mlelwa et al., 2015).

Nowadays, various forms of e-commerce can be identified, as they are determined by the contracting parties (Shettar, 2016). The first form of e-commerce is B2C (Business to Customer) and refers to the form of e-commerce, according to which, firms sell products and services to consumers. The second form is B2B (Business to Business), where firms sell products and services to other firms, which means that this form of e-commerce is used in the wholesale sector (Kumar & Kumar, 2014; Menaka & Seethal, 2018; Niranjnamurthy et al., 2013). The aforementioned forms of e-commerce are the most widespread due to the volume of transactions that are performed (Niranjnamurthy et al., 2013).

The third type of e-commerce is less known, and more specifically, it is the C2B form (Consumer to Business), according to which, consumers create value for some products, and then, they shape demand for them (Kumar & Kumar, 2014; Menaka & Seethal, 2018). Finally, the fourth form of e-commerce is the C2C (Consumer to Consumer) form, according to which, the sellers of products are natural persons, and the same applies to

their buyers. The last form of e-commerce seems to have developed significantly lately, since it helps consumers in gaining new sources of income (Kumar & Kumar, 2014; Menaka & Seethal, 2018; Niranjnamurthy et al., 2013).

Currently, e-commerce keeps earning a constantly increasing share in both the retail market and the wholesale market. This fact is not incidental but rather the result of a number of drivers that have emerged on both an economic and a social level due to the developments that take place (Shahriari et al., 2015). In specific, globalisation and the opening up of the markets that enable the free movement of products are some of the key drivers that led to the development of e-commerce. Furthermore, technological evolution and the development of the Internet and information science have served as another key driver that triggered a shift in consumer tastes, when it comes to buying products and services in an online environment. Besides, the fast pace of everyday life and the complexity of the life of modern humans have reduced significantly the time that is available to the latter, which resulted in their need to save time, and this can be achieved by taking advantage of the potentials offered by e-commerce. Finally, the need of citizens for more new updates and information is another driver that largely favors the development of e-commerce (Schneider, 2015; Shahriari et al., 2015).

1.2 Advantages of e-commerce for companies and customers

There are various advantages emanating from the implementation of e-commerce, which refer to both customers and companies. More specifically, regarding the advantages that refer to companies, one of the most important of them is the ability to reduce cost, since it is no longer necessary to maintain a brick-and-mortar shop or employ a large number of salespeople in it. Besides, due to the fact that e-commerce does not have any geographical limitations, companies can appeal to consumers who are based in various areas of the country, within which they operate, or within the countries that they target (Pomportsis & Tsoufias, 2002; Vadwala & Vadwala, 2017).

On top of that, ensuring adherence to applicable data protection regulations at all times, companies can maintain a customer base, and create advertising campaigns and develop promotional activities that are exclusively addressed to their existing customers, which leads to significant promotional and advertising cost savings. In addition, through e-commerce, companies can record dominant market trends and

make it easier to develop successful marketing strategies. Special reference should also be made to the reduction in the operating cost of companies through the availability of faster and more accurate information, which is achieved with the assistance of automated procedures (Pomportsis & Tsoulfas, 2002; Shahriari et al., 2015; Vadwala & Vadwala, 2017). Finally, it should be noted that the use of e-commerce enhances the recognizability of companies and boosts their brand (Vadwala & Vadwala, 2017).

On the other hand, there are numerous and important advantages that also refer to consumers. In more detail, consumers have the opportunity to make their purchases within more extended working hours, since they can literally buy their products and services 24 hours a day, 7 days a week (Niranjanamurthy et al., 2013; Pomportsis & Tsoulfas, 2002; Shahriari et al., 2015; Vadwala & Vadwala, 2017). Moreover, thanks to e-commerce, consumers have the chance to search the market very fast, and find information about the products and services that they are interested in. In other words, consumers are given the chance to compare various prices of the same product, or even the features of products that meet a specific need of theirs (Niranjanamurthy et al., 2013; Vadwala & Vadwala, 2017).

Consumers can also be updated on valid offers and take immediate advantage of them, as well as collect information about the product that they are interested in. Further to that, it should be noted that consumers have the opportunity to buy products that cannot be found in local brick-and-mortar shops in the area where they live, which saves them the time and cost that would be required to find and buy them. Last but not least, some products and services (such as software products and tickets) can be bought by consumers and provided to them instantly, without having to wait for their delivery (Pomportsis & Tsoulfas, 2002; Vadwala & Vadwala, 2017).

1.3 Disadvantages of e-commerce for companies and customers

In addition to the advantages that have been reported in the previous section, a number of disadvantages have also been reported that refer to consumers, on the one hand, and companies, on the other. First of all, one of the most important disadvantages that is in line with making online transactions, concerns the cost of memorizing the personal identification numbers of cards and accounts that are used by consumers. Additionally, another disadvantage that relates to consumers results from the fact that it is not

possible to see, touch, and feel the product, which means there is always the risk that the actual product that will be received by the consumer, will possibly be different to the one displayed on the online store. Along with that, it should also be noted that, in some cases, there is a time lag between the purchase and delivery/receipt of the product, which is not the case with physical stores where consumers buy and receive the product at the same time. Finally, special reference should also be made to the risk of possible fraud or personal data being hacked, and therefore, consumers should be on constant alert (Pomportsis & Tsoulfas, 2002; Vadwala & Vadwala, 2017).

From a company's point of view, the main disadvantage lies in the need to keep websites and online stores constantly updated. In more detail, companies should keep themselves up-to-date and also keep an open eye on developments in information technology and networks, so that the platforms that they use are compatible with them and meet their operating requirements. This means ongoing monitoring and upgrades, which implies an increased cost of operation, maintenance, and making improvements. What is more, in several cases, companies have to implement major changes in the systems and software applications and programs that they use to control their inventories and other similar functions, in order to ensure compatibility between those systems and the online stores. Besides, companies need to hire staff to manage their online stores (Pomportsis & Tsoulfas, 2002; Vadwala & Vadwala, 2017). Finally, Niranjnamurthy et al. (2013) argue that, in this way, it is possible for individuals to set up their own companies, although they may lack the actual abilities, skills, and qualifications that are required, which results in poorly run companies.

2. Customer trust in e-commerce

2.1 Conceptual approach of Customer trust in e-commerce

Trust is a highly complex concept that seems to play a prominent role in both the interpersonal relations among humans, and the transactional relationships that develop between companies and humans, and among humans (Papadopoulou et al., 2001). In this report, however, trust is examined as a concept that refers to the relationship that develops between consumers and companies. The trust that consumers develop in a product, service, organization, or company is a key determinant that has a large impact on consumer behaviour, and the relevant consumer choices (Rybak, 2015). More specifically, in the online world, and especially in e-commerce, consumer trust is extremely important, since there is no personal contact between the buyer and the seller (Gupta & Dubey, 2016).

2.2 Factors that affect Customer trust in e-commerce

E-commerce seems to earn a constantly increasing share of the total transactions that are carried out on a global level by building a competitive advantage on a systematic basis, compared to traditional commerce. However, it is observed that it has not been developed to the same level in all the countries, as well as it is not used by all the consumers, in order for them to buy products and services that can meet their needs. One of those factors that seem to affect the use of the Internet for making online purchases, is the limited trust shown by some consumers in e-commerce (Hidayanto et al., 2014). It is extremely important for entrepreneurs who invest heavily in the establishment of online stores and other online business models, to identify those factors that keep consumer trust in e-commerce low, in order for them to be able to eliminate those factors (Habibi & Hajati, 2015; Lee et al., 2018).

Various surveys have been conducted, in order to investigate the specific factors that affect consumer trust in e-commerce. One of these surveys was conducted by Rybak (2018) on seven Polish consumers of a young age, through the completion of a questionnaire on an online platform. The factors that seem to significantly affect consumer trust in e-commerce are the positive experiences of other people who have used the Internet to make a purchase, as well as their own positive previous experiences. In other words, it was found out that those consumers who have

successfully made an online purchase or have other persons in their family environment who make online purchases and are happy with them, feel greater trust in e-commerce.

Another survey that attempted to examine the factors that determine consumer trust in e-commerce was conducted by Connolly and Bannister (2007) on 858 consumers in Ireland. From the analysis of the responses that were collected, it was made clear that those factors that seem to determine the level of consumer trust in e-commerce are any previous experience that the consumer may have had, and the consumer's view about the seller's reliability and credibility. Actually, when a consumer has a positive experience from a purchase that he/she has made online, as well as when he/she believes that the seller is reliable, he/she builds trust in e-commerce and performs the transaction that he/she wants.

A highly interesting survey was conducted by Hidayanto et al. (2014), and through this survey, it was attempted to examine the level of consumer trust in e-commerce, and the factors that determine consumer trust, as well as explore the impact of consumer trust on the buying behavior of consumers. More specifically, 151 consumers from Indonesia took part in the survey, by filling in a specially designed questionnaire. The results obtained from processing the responses provided by the 151 participants in the survey demonstrated the fact that the key factors that determine consumer trust in e-commerce are the seller's reputation, as well as the quality of the online platform, where the transaction takes place. Moreover, it was made clear that the consumer trust in e-commerce has a corresponding impact on the buying behaviour of consumers.

The survey conducted by Vega (2015) had a similar content, and was carried out on 200 young consumers, and more specifically, on 200 students at a private university. In detail, an attempt was made to investigate those factors that determine the level of trust of the above participants in e-commerce. The factors that were examined were the perceived safety, the privacy, and the risk of the transactions, the experience of using the Internet, as well as the perceived quality of the online platform, where the transaction takes place. The results of the survey showed that all the aforementioned factors can determine consumer trust in e-commerce. Strictly speaking, consumers believe that online transactions are safe and without any risk, and do not compromise

their privacy; also, consumers who make systematic use of the Internet and believe in the quality of online platforms, tend to show greater trust in e-commerce.

The survey of Eid (2011) attempted, as well, to define those factors that determine consumer trust in e-commerce. In more detail, 218 consumers who live in Saudi Arabia took part in the survey and completed a specially designed questionnaire. The results of the survey showed that the factors that determine consumer trust in online transactions and e-commerce are the quality of communication between sellers and buyers, the perceived risk of the transactions, and also the risk of violating the privacy of consumers. To be more precise, consumers build stronger trust in e-commerce, when they can establish better communication with the seller, as well as when they feel that the risk of the transactions that they make is limited, and their privacy cannot be compromised.

Lee et al. (2018) also explored a number of factors that affect either positively or negatively the trust that consumers show in online transactions. In this case, 123 consumers from Seoul, South Korea, took part in the survey by filling in a questionnaire containing closed-ended questions. The results of the survey were very interesting, since they showed that the positive reputation of some sellers affects positively the buying intention of consumers, without, on the other hand, the negative reputation of the sellers affecting negatively the buying intention of consumers. Furthermore, the quality of websites and online stores determines consumer trust in e-commerce accordingly. In addition, it was discovered that, in cases where consumers experience an increased risk in making online transactions, they also experience low trust levels, which finally prevents them from making an online transaction.

The survey conducted by Mazhar et al. (2011) was in the same line, and it took place in Malaysia through the participation of 311 employees who worked for various organizations. By processing the responses that were collected, it was found out that the perceived risk of the transactions is negatively correlated to consumer trust in online transactions, whereas the quality of online stores is positively correlated to it. Moreover, good reputation (word-of-mouth) and the comments posted by other consumers who have bought from specific sellers, have a positive impact on the trust that consumers finally show in e-commerce.

The survey that was conducted by Sohaib et al. (2019), which was carried out on 250 Australia consumers, also identified a number of factors that affect consumer trust in e-commerce. More specifically, the views that consumers have about the seller, their familiarity with the Internet and use of computers, look and quality features of online stores, comments and experiences of other consumers, as well as the desire of consumers to keep themselves up-to-date with the dominant new trends, are factors that affect consumer trust in e-commerce.

From the surveys that were listed, it can be understood that, in order for consumers to be able to carry out transactions, they should feel trust in e-commerce and sellers. Besides, it was shown that there are numerous factors that can affect consumer trust in online purchases, either negatively or positively. In more detail, the most important of those factors that can be identified, and which are key to building consumer trust, refer to the presence of any previous positive experiences (Connolly & Bannister, 2007; Rybak, 2018), good reputation and reliability of the sellers (Connolly & Bannister, 2007; Hidayanto et al., 2014; Lee et al., 2018; Mazhar et al., 2011; Sohaib et al., 2019), high quality of online stores (Hidayanto et al., 2014; Lee et al., 2018; Mazhar et al., 2011; Sohaib et al., 2019; Vega, 2015), low perceived risk (Eid, 2018; Lee et al., 2018; Mazhar et al., 2011; Sohaib et al., 2019; Vega, 2015), and finally, low perceived risk of consumer privacy being violated.

2.3 The impact of demographic characteristics of consumers on consumer trust in e-commerce

According to Siomkos (2013), demographic characteristics seem to affect the consumer behaviour of individuals on many occasions. It is argued in specific that demographic characteristics such as the gender, age, marital status, and educational background of individuals, as well as their place of residence and employment status, create different needs, and encourage individuals to adopt different consumer behaviour (Kotler & Koller, 2006).

Some of the surveys that aimed to examine consumer trust in e-commerce have attempted to investigate whether some of the demographic characteristics can affect and shape consumer trust accordingly. Mazhar et al. (2011) in particular, through their survey, reached the conclusion that some of the demographic characteristics of

consumers affect their trust in e-commerce. More specifically, the gender, age, and educational background, along with the experience of using computers, have a strong impact on the trust in e-commerce that is developed by consumers.

Moreover, Sohaib et al. (2019) also investigated whether the gender of consumers affects their views about e-commerce and their trust in it. For the purpose of this investigation, 250 consumers were involved in the survey, 55% of whom were males and 45% females. The results of the survey revealed a significant difference among the views held by those involved in the survey, based on their gender. More specifically, it was shown that female consumers place stronger emphasis on the quality features of online stores, such as graphics, colors used, and the individual options offered by them, and believe that the higher the quality of online stores, the more reliable they are.

Besides, Yoon and Occena (2015) attempted to determine whether a number of consumer demographics, such as age and gender, affect the level of trust that consumers have in e-commerce. More particularly, 94 consumers took part in the survey, 48 of which were females and 46 males. The results of the survey showed that gender does not differentiate the level of consumer trust in online transactions. On the contrary, age affects consumer trust, and therefore, shapes consumer perceptions and attitudes towards e-commerce accordingly.

3. Methodology

3.1 Objective and research questions

Through this research assignment, it is attempted to investigate the attitudes and perceptions of Greek consumers towards e-commerce and online transactions. In particular, the research questions that should be addressed by this report are the following:

1. What are the most common websites that are used by Greek consumers within the context of making online transactions?
2. How does their behavior differ depending on their demographics?
3. What are the factors that determine the trust of Greek consumers in e-commerce?
4. How do these factors differ depending on their demographics of Greek consumers?

3.2 Research tool used in the survey

In order to collect the necessary primary data to be able to provide answers to the above research questions, the questionnaire was used, which is in fact a highly popular data collection tool within the context of investigating the attitudes and perceptions held by a social group (Creswell, 2011). The questionnaire was constructed by the researcher in such a way that answering the above research questions is ensured. In the first section of the questionnaire, it is investigated how e-commerce is used, and the extent, to which, Greek consumers use it. In particular, the first question examines the type of transactions that consumers perform, and their frequency, while the second one examines the number of purchases that consumers have made over the last year. The first question has also been used in the survey of Eid (2011), which had a similar objective, while the second one was constructed by the student.

The second category of questions examines the factors that determine the level of trust of Greek consumers in e-commerce. In more specific, there are 3 questions that study the effect of Web Quality on the level of consumer trust, and 4 questions that investigate the impact of Vendor Image on the level of consumer trust, which have been used by

Hidayanto et al. (2014). Furthermore, there are 4 questions that examine the influence of Perceived Security on the level of consumer trust, and 4 questions that examine the influence of Perceived Privacy on the level of consumer trust, which have been used by Eid (2011). In addition, there are 2 questions that examine the impact of Internet Experience on the level of consumer trust, which have been used by Vega (2015). Finally, there are 4 questions that have been used by Sheikh et al. (2019), which investigate the impact of Social Influence on the level of consumer trust.

As a final word, in the last section of the questionnaire, an investigation takes place of demographic characteristics of the participants, such as gender, age, educational background, occupation, and family income. At this point, it should be reported that data collection was carried out according to the principles of research ethics, which means that no personal data were requested from the participants who provide their identification details, as well as that none of the participants was forced to take part in the survey against their will (Cohen et al., 2007).

3.3 Research sample

The research population is all Greek consumers aged over 18 years old, and the research sample is a small part of the total population. Characteristically, 126 Greek consumers participated in the survey, the majority of which were aged up to 45 years old. The selection of the sample was based on convenient sampling, which is also the main limitation of this survey. Strictly speaking, the sample that participated in the survey mostly comes from the social environment of the researcher and does not refer to the citizens of the country overall. Although convenient sampling allows the collection of the necessary data within the soonest possible time, it does not lead to results that can be generalized to the population under investigation (Creswell, 2011).

4. Research results

4.1 Reliability Analysis

In the first part of the Questionnaire analysis, it will be attempted to conduct Reliability Analysis. For the purposes of the research topic, a questionnaire was created, which consisted of 5 Demographic variables, 1 question regarding the number of purchases

that were made last year, 1 question regarding the consumer use of e-commerce websites, 3 questions about Web Quality, 4 questions regarding Perceived Security, 5 questions regarding Perceived Privacy, 4 questions regarding Vendor Image, 2 questions regarding Internet Experience, and finally, 4 questions regarding Social Influence. An analysis was conducted on the overall sample of 126 participants consisting of 65.9% Females and 34.1% of Males.

The Questionnaire survey consists of a 5-point Likert scale, and qualitative ones. In the Chapter about demographics, questions are used regarding Gender, Age Group, Educational background, Occupation, and Family Income. For the rest of the non-Likert scaled variables, 2 questions are introduced regarding the number of purchases that were made last year, and the consumers' use of e-commerce websites. Finally, for the Likert-scaled questions, a further analysis was conducted of topics such as Web Quality, Perceived Security, Perceiver Privacy, Vendor Image, Internet Experience, and Social Influence.

For the purpose of Reliability Analysis, the Cronbach's Alpha coefficient was calculated by using all the Likert-scaled questions. In Table.1, it is observed that there is an overall reliability score that is higher than 0.900 (Alpha=0.909) indicating that there is an excellent internal consistency according to the data.

| Reliability Statistics | |
|-------------------------------|------------|
| Cronbach's Alpha | N of Items |
| ,909 | 22 |

Table.1 Reliability Cronbach's Alpha coefficient.

Finally, from the Table.2 below, it is observed that nearly all the questions are important and should be included in the analysis, except of the limited importance of the variables regarding the position of the website in the market, the variety of products, and finally, trusting friends for websites with regard to online transactions. Due to the very small variations, the following analysis will be conduct by keeping all the variables-questions.

Item-Total Statistics

| | Cronbach's Alpha if Item Deleted |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Website Quality | |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | ,904 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | ,904 |
| The E-commerce site I choose, has an interesting web design. | ,907 |
| Perceived Security | |
| The Web site has mechanism to ensure the safe transmission of its users' information. | ,903 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | ,902 |
| The electronic payment on the Web site is safe. | ,904 |
| Purchasing through the Web site will not cause financial risk. | ,904 |
| Perceived Privacy | |
| The Web site complies with personal data protection laws. | ,904 |
| The Web site only collects user's personal data that are necessary for its activity. | ,904 |
| The Web site does not provide my personal information to others without my consent. | ,904 |
| I feel safe when sending my personal information to the Web site. | ,907 |
| The Web site shows concern for privacy of its users. | ,901 |
| Vendor Image | |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | ,903 |
| The E-commerce site where I purchase a product is reputable and trustworthy. | ,903 |
| The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | ,910 |
| The E-commerce site where I purchase has various products. | ,910 |
| Internet Experience | |
| The use of the Internet is a good experience for me personally. | ,907 |
| I have positive experiences using the Internet. | ,907 |
| Social Influence | |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | ,905 |

| | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| I trust that a review and rate from a friend regarding an E-commerce site is honest. | ,905 |
| I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | ,905 |
| I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | ,909 |

Table.2 Reliability Cronbach's Alpha coefficient if a question is deleted.

4.2 Descriptive and Inferential Statistics

In this chapter, a presentation takes place of the descriptive measures of the variables, and the behaviour is explored, which refers to the existing factors. First, in Table.3, it is observed that, as stated before, 65.9% of the 126 participants are Females, while the remaining 34.1% are Males.

| | | Gender | | | |
|-------|--------|---------------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | Female | 83 | 65,9 | 65,9 | 65,9 |
| | Male | 43 | 34,1 | 34,1 | 100,0 |
| | Total | 126 | 100,0 | 100,0 | |

Table.3 Gender Descriptive Statistics.

Based on Age, in Table.4, the main sub-sample consists of people in the 26-35 age group (42.9%), 26.2% of people in the 18-25 age group, while the remaining 31%, of people over 36 years old.

| | | Age | | | |
|-------|-------------|------------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 18-25 | 33 | 26,2 | 26,2 | 26,2 |
| | 26-35 | 54 | 42,9 | 42,9 | 69,0 |
| | 36-45 | 23 | 18,3 | 18,3 | 87,3 |
| | 46-55 | 11 | 8,7 | 8,7 | 96,0 |
| | 56-65 | 4 | 3,2 | 3,2 | 99,2 |
| | 66 and over | 1 | ,8 | ,8 | 100,0 |
| | Total | 126 | 100,0 | 100,0 | |

Table.4 Age Descriptive Statistics.

Regarding educational background, in Table.5, nearly half of the sample consists of individuals who are University Graduates (43.7%), 1 in 3 individuals has a Postgraduate Degree (34.1%), while all the other categories have percentages less than 9%.

| | | Educational background | | | |
|--|--|-------------------------------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |

| | | | | | |
|-------|--------------------------------|-----|-------|-------|-------|
| Valid | Primary School Graduate | 1 | ,8 | ,8 | ,8 |
| | Secondary/High School Graduate | 11 | 8,7 | 8,7 | 9,5 |
| | Technical School Graduate | 9 | 7,1 | 7,1 | 16,7 |
| | University Graduate | 55 | 43,7 | 43,7 | 60,3 |
| | Postgraduate Degree Holder | 43 | 34,1 | 34,1 | 94,4 |
| | PhD Degree Holder | 5 | 4,0 | 4,0 | 98,4 |
| | Other | 2 | 1,6 | 1,6 | 100,0 |
| | Total | 126 | 100,0 | 100,0 | |

Table.5 Educational Background Descriptive Statistics.

Finally, in Table.6 and Table.7, it is observed that 39% of participants are Private Employees, 23% are Students, 11.9% are Public Servants, while those who are Unemployed or Freelancers have equal percentages amounting to 9.5% each. Also, the highest percentage (39.7%) refers to individuals with a family income of up to 10,000, 34.1% has a family income from 10,001 to 20,000, while 16.7% has an income of up to 30,000. It should be reported that a cumulative percentage of only 9.6% has an income that is higher than 30,000.

Occupation

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|-------|--------------------------|-----------|---------|---------------|--------------------|
| Valid | Unemployed | 12 | 9,5 | 9,5 | 9,5 |
| | Student | 29 | 23,0 | 23,0 | 32,5 |
| | Private Employee | 50 | 39,7 | 39,7 | 72,2 |
| | Public Servant | 15 | 11,9 | 11,9 | 84,1 |
| | Freelancer/Self-Employed | 12 | 9,5 | 9,5 | 93,7 |
| | Retired/Pensioner | 4 | 3,2 | 3,2 | 96,8 |
| | Housewife | 1 | ,8 | ,8 | 97,6 |
| | Other | 3 | 2,4 | 2,4 | 100,0 |
| | Total | 126 | 100,0 | 100,0 | |

Table.6 Occupation Descriptive Statistics.

Family Income

| | | Frequency | Percent | Valid Percent | Cumulative Percent |
|--|--|-----------|---------|---------------|--------------------|
|--|--|-----------|---------|---------------|--------------------|

| | | | | | |
|-------|------------------|-----|-------|-------|-------|
| Valid | Up to 10,000 | 50 | 39,7 | 39,7 | 39,7 |
| | 10,001 to 20,000 | 43 | 34,1 | 34,1 | 73,8 |
| | 20,001 to 30,000 | 21 | 16,7 | 16,7 | 90,5 |
| | 30,001 to 40,000 | 5 | 4,0 | 4,0 | 94,4 |
| | 40.001 and over | 7 | 5,6 | 5,6 | 100,0 |
| | Total | 126 | 100,0 | 100,0 | |

Table.7 Family Income Descriptive Statistics.

In Figure.1, the above mentioned variables are graphically illustrated.

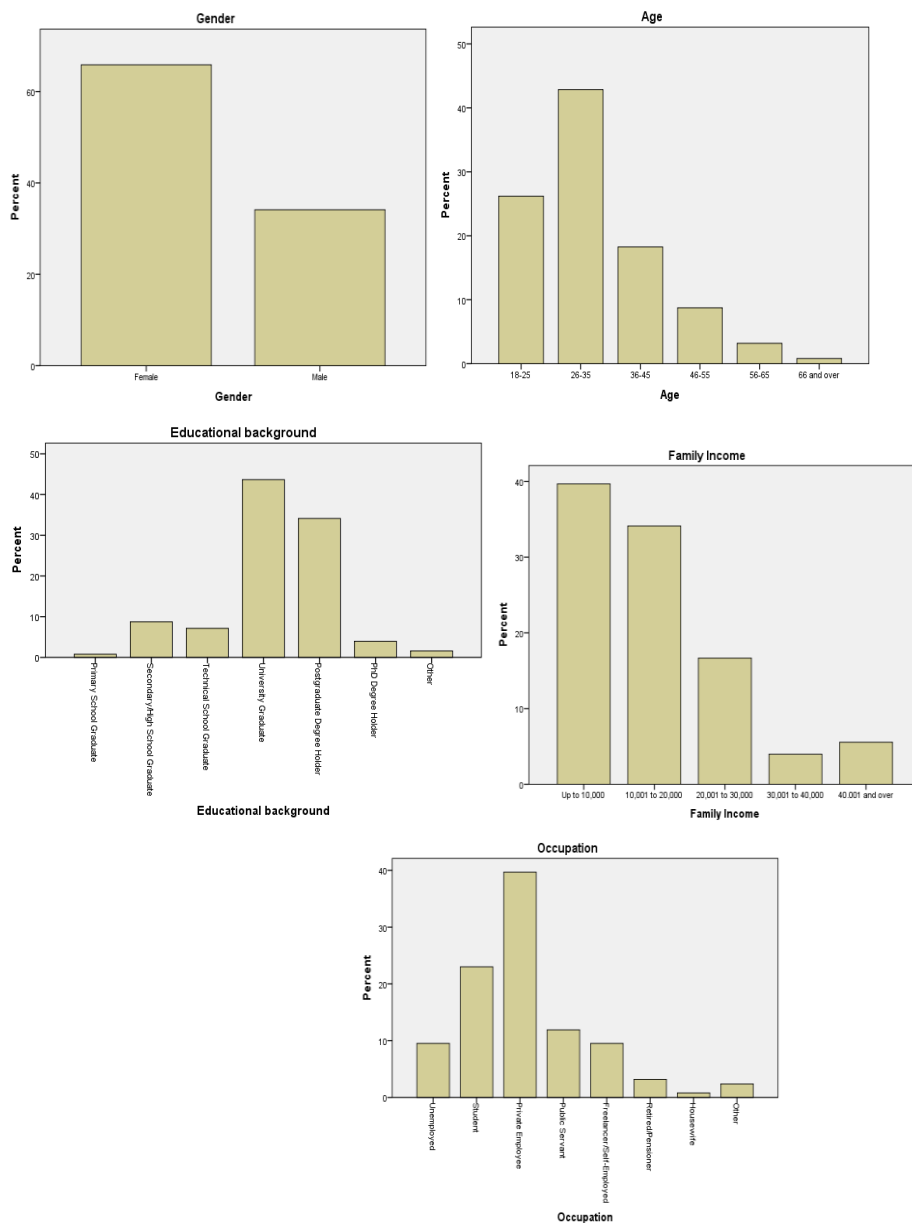


Figure.1 Bar charts of Demographic characteristics.

Regarding the use of e-commerce websites, in Table.8, it is observed that the highest mean scores correspond to purchasing goods (Mean Score=3.37) and e-banking services (Mean Scores=3.26), which are used more than often. On the other hand, participation in e-auctions and websites that trade stocks is less frequent, with a frequency that ranges from nearly the highest than not at all, and mean scores of 1.31 and 1.48, respectively. It should be highlighted that, the Median of cases that refer to the Trading of Stocks and Participation in E-Auction has a value that is equal to 1.00, respectively, while, due to the lowest variances (0.779 and 0.423, respectively) among the other variables, it can be listed as a valid option, although at least 1 in 2 people do not use at all this kind of e-commerce sites.

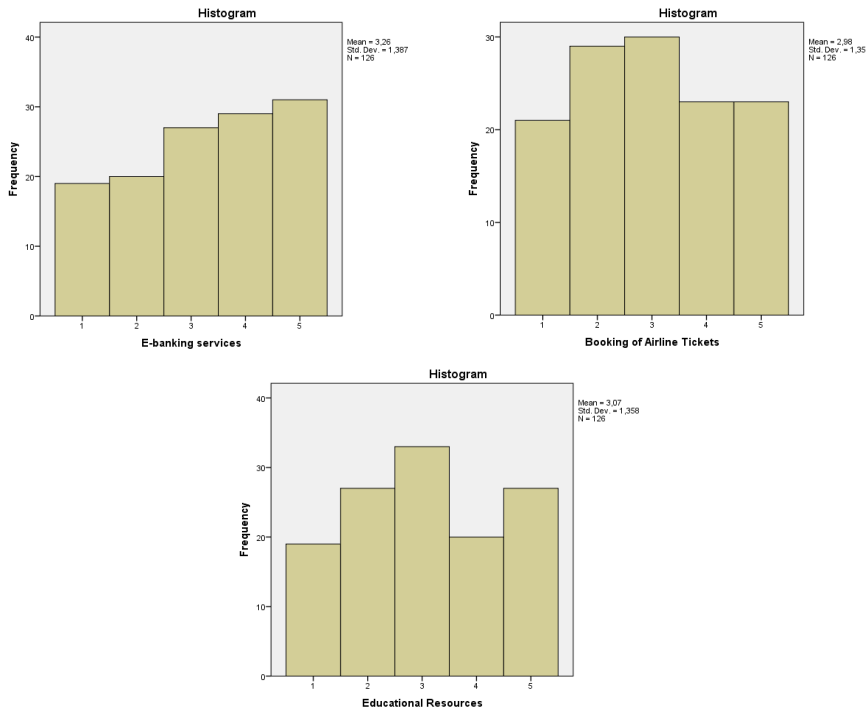
Descriptives

| | | 95% Confidence Interval for Mean | | | | | | | |
|----------------------------|------------|-------------------------------------------|-----------|-----------|------------|----------|-------------------|--------------|--------------|
| | | Mea n | Boun d | Uppe r | Media n | Variance | Std. Deviation | Skewnes s | Kurtosi s |
| E-banking services | Statistic | 3,26 | 3,02 | 3,51 | 3,00 | 1,923 | 1,387 | -,263 | -1,167 |
| | Std. Error | ,124 | | | | | | ,216 | ,428 |
| Booking of Airline Tickets | Statistic | 2,98 | 2,75 | 3,22 | 3,00 | 1,824 | 1,350 | ,069 | -1,163 |
| | Std. Error | ,120 | | | | | | ,216 | ,428 |
| Educational Resources | Statistic | 3,07 | 2,83 | 3,31 | 3,00 | 1,843 | 1,358 | ,025 | -1,161 |
| | Std. Error | ,121 | | | | | | ,216 | ,428 |
| Trading of stocks | Statistic | 1,48 | 1,32 | 1,63 | 1,00 | ,779 | ,883 | 2,023 | 3,846 |
| | Std. Error | ,079 | | | | | | ,216 | ,428 |
| Purchasing of goods | Statistic | 3,37 | 3,16 | 3,57 | 3,00 | 1,386 | 1,177 | -,119 | -,870 |
| | Std. Error | ,105 | | | | | | ,216 | ,428 |

| | | | | | | | | | |
|-------------------------------------|--------------------------------|--------------|------|------|------|------|------|---------------|---------------|
| Participatio n in E- Auctions | Statisti c Std. Error | 1,31 ,058 | 1,19 | 1,42 | 1,00 | ,423 | ,651 | 2,069 ,216 | 3,415 ,428 |
|-------------------------------------|--------------------------------|--------------|------|------|------|------|------|---------------|---------------|

Table.8 Use of E-Commerce websites Descriptive Statistics.

In Figure.2, the histograms can be seen of the above-mentioned E-Commerce websites and their use.



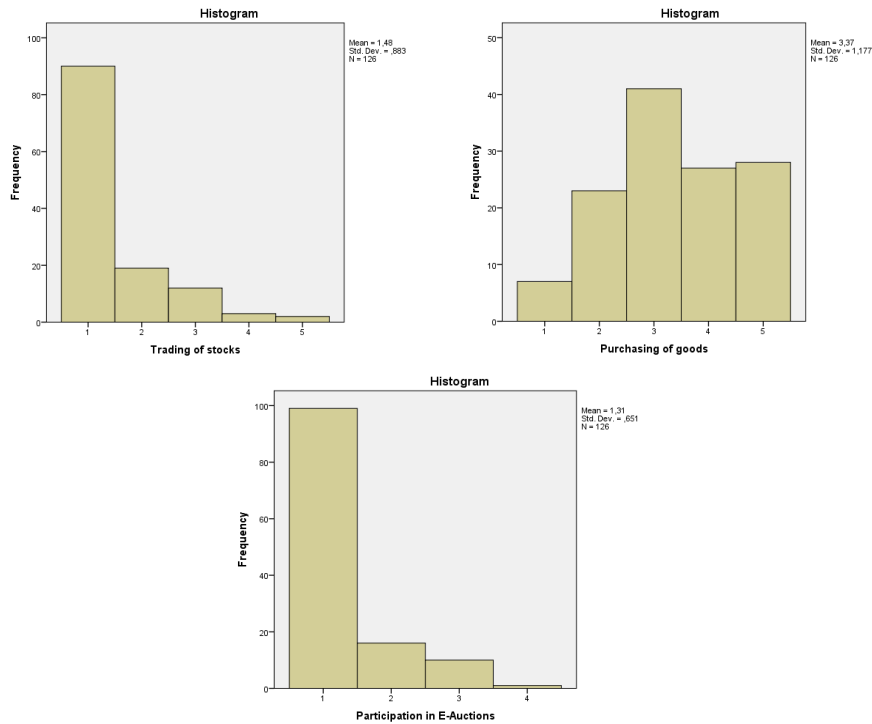


Figure.2 Histograms of the use of E-Commerce websites.

As it can be seen in Table.9, the highest percentage of participants (45.2%) made more than 10 e-purchases last year; nearly 20% (19.8%) made 4-5 e-purchases, while 18.3% made from 6 to 10. Also, a cumulative percentage of 16.7% made less than 3 e-purchases last year.

| How many e-purchases did you make the last year? | | | | | |
|---------------------------------------------------------|--------------|-----------|---------|---------------|--------------------|
| | | Frequency | Percent | Valid Percent | Cumulative Percent |
| Valid | 1 | 5 | 4,0 | 4,0 | 4,0 |
| | 2-3 | 16 | 12,7 | 12,7 | 16,7 |
| | 4-5 | 25 | 19,8 | 19,8 | 36,5 |
| | 6-10 | 23 | 18,3 | 18,3 | 54,8 |
| | More than 10 | 57 | 45,2 | 45,2 | 100,0 |
| | Total | 126 | 100,0 | 100,0 | |

Table.9 Number of e-purchases that were made last year.

In Figure.3, the bar chart of the above-mentioned variable can be seen.



Figure.3 Bar Chart of the number of e-purchases that were made last year.

For the purposes of this survey, in the following section, a discussion will take place about the effect of various factors on making online transactions. First of all, according to Web Quality, it is noticed that, when a website provides useful and reliable information, and also sufficient information about transactions, the highest ratings can be observed with mean scores of 4.06 and 4.02, respectively, while Web Design does not seem to have any effect. With regard to Perceived Security, the participants are mainly concerned about the safety of electronic payment on the website (Mean Score=4.37), and about the existence of a mechanism to ensure this safety of transfer (Mean Score=4.33). Also with the same mean score of 4.11, users want to ensure that their data are protected from hackers, and they will not be put in financial risk. According to Perceived Privacy, the highest score (Mean Score=4.21) refers to users who are concerned about when a website provides their private data to others without their consent, and whether a website complies with personal data protection laws (Mean Score=4.10).

Regarding Vendor Image, users want the E-commerce site to be well-known and respectable, and also reputable and trustworthy (Mean Scores=4.15, respectively). Furthermore, according to Internet Experience, the participants have stated that, on a personal level, the use of the Internet is a good experience with positive outcomes (Mean Scores=4.12 and Mean Score=3.99, respectively). Moreover, referring to Social Influence, users seem to agree with the statement that they trust the recommendation of a friend about an e-commerce site, considering it as an honest opinion in general (Mean Score=3.69). On the other hand, they seem to neither agree nor disagree with the statement that trusting friends on online forums is reliable enough to help them in

making an online transaction (Mean Score=3.25). It is obvious that, according to the median of our variables, the majority of factors indicate a positive effect (Factors with Median ≥ 4), while for cases that refer to web design and the trust of individuals in online forums with regard to online transactions, it is observed that at least 1 in 2 individuals seem to be neither positively nor negatively affected. Finally, regarding the variance of the factors, it can be seen that, in cases where the variance has the lowest levels, such as the existence of a mechanism to ensure safe transmissions (Var.=0.637), and when the E-Commerce site is trustworthy (Var.=0.721), a Median has been calculated that is equal to 4, respectively. As a result, at least 1 in 2 people are positive affected, which is limited to a strong influence. In Table.10, all the necessary information is provided regarding the factors that affect consumer trust in e-commerce.

| | | Descriptives | | | | | | | |
|--------------------------------------------------------------------------------------------------|------------|-------------------------------------------|-------|-------|--------|----------|-----------|----------|----------|
| | | 95% Confidence Interval for Mean | | | | | | | |
| | | Lower | Upper | | | Std. | | | |
| | | Mean | Bound | Bound | Median | Variance | Deviation | Skewness | Kurtosis |
| Web Quality | | | | | | | | | |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | Statistic | 4,06 | 3,90 | 4,22 | 4,00 | ,812 | ,901 | -1,060 | 1,558 |
| | Std. Error | ,080 | | | | | | ,216 | ,428 |
| <u>The E-commerce site</u> | Statistic | 4,02 | 3,86 | 4,18 | 4,00 | ,832 | ,912 | -1,125 | 1,616 |

| | | | | | | | | | |
|-------------------------------------------------------------------------------------------|------------|------|--|--|--|--|--|------|------|
| where I purchase a product, provides sufficient information for me to make a transaction. | Std. Error | ,081 | | | | | | ,216 | ,428 |
|-------------------------------------------------------------------------------------------|------------|------|--|--|--|--|--|------|------|

| | | | | | | | | | |
|--------------------------------------------------------------|------------|------|------|------|------|------|------|-------|------|
| The E-commerce site I choose, has an interesting web design. | Statistic | 3,31 | 3,14 | 3,48 | 3,00 | ,903 | ,950 | -,204 | ,029 |
| | Std. Error | ,085 | | | | | | ,216 | ,428 |

Perceived Security

| | | | | | | | | | |
|---------------------------------------------------------------------------------------|------------|------|------|------|------|------|------|--------|-------|
| The Web site has mechanism to ensure the safe transmission of its users' information. | Statistic | 4,33 | 4,18 | 4,47 | 4,00 | ,637 | ,798 | -1,232 | 1,832 |
| | Std. Error | ,071 | | | | | | ,216 | ,428 |

| | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------|------------|------|------|------|------|------|------|-------|------|
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | Statistic | 4,11 | 3,94 | 4,28 | 4,00 | ,916 | ,957 | -,949 | ,501 |
| | Std. Error | ,085 | | | | | | ,216 | ,428 |

| | | | | | | | | | |
|-------------------------------------------------|------------|------|------|------|------|------|------|--------|-------|
| The electronic payment on the Web site is safe. | Statistic | 4,37 | 4,21 | 4,52 | 5,00 | ,762 | ,873 | -1,301 | 1,224 |
| | Std. Error | ,078 | | | | | | ,216 | ,428 |

| | | | | | | | | | |
|----------------------------------------------------------------|------------|------|------|------|------|------|------|--------|------|
| Purchasing through the Web site will not cause financial risk. | Statistic | 4,11 | 3,94 | 4,29 | 4,00 | ,980 | ,990 | -1,132 | ,976 |
| | Std. Error | ,088 | | | | | | ,216 | ,428 |

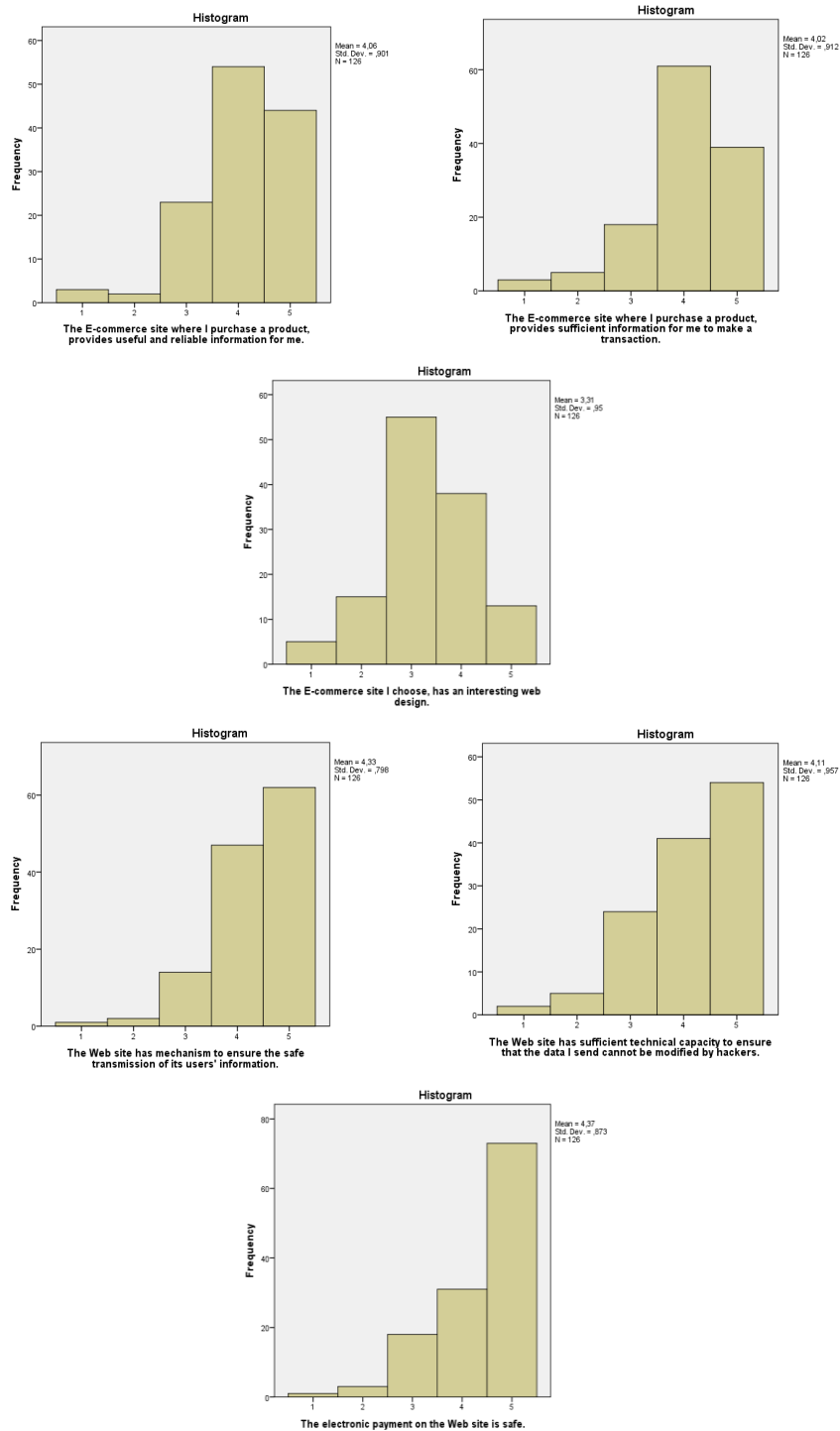
Perceived Privacy

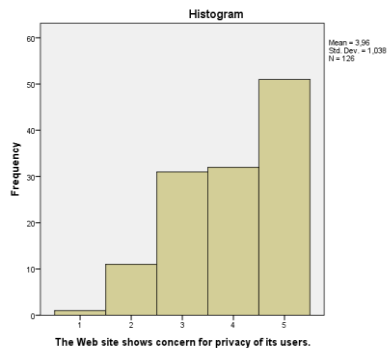
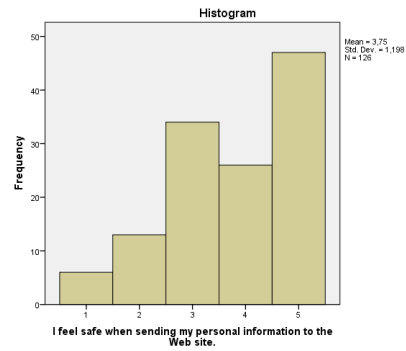
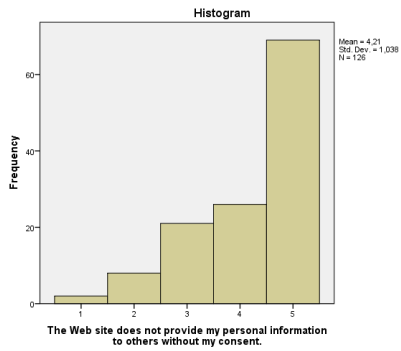
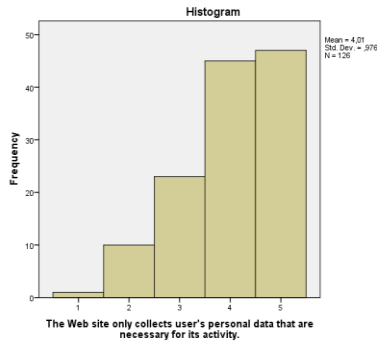
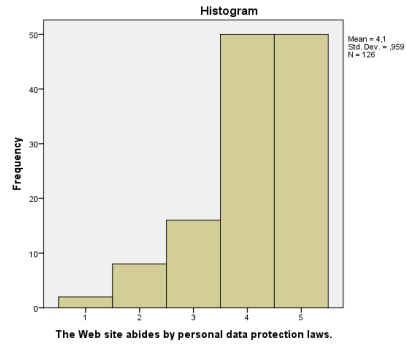
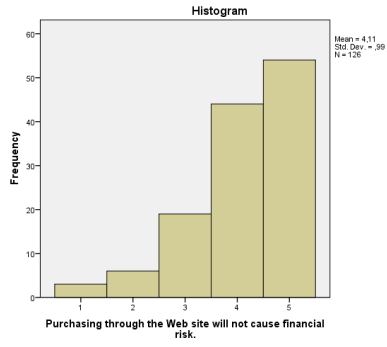
| | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|------|------|------|-------|-------|-------|-------|
| where I purchase a product is reputable and trust-worthy. | Std. Error | ,076 | | | | | | ,216 | ,428 |
| The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | Statistic | 3,62 | 3,45 | 3,79 | 4,00 | ,910 | ,954 | -,066 | -,684 |
| | Std. Error | ,085 | | | | | | ,216 | ,428 |
| The E-commerce site where I purchase has various products. | Statistic | 3,60 | 3,42 | 3,78 | 4,00 | 1,043 | 1,021 | -,354 | -,446 |
| | Std. Error | ,091 | | | | | | ,216 | ,428 |
| Internet Experience | | | | | | | | | |
| The use of the Internet is a good experience for me personally. | Statistic | 4,12 | 3,96 | 4,28 | 4,00 | ,794 | ,891 | -,858 | ,392 |
| | Std. Error | ,079 | | | | | | ,216 | ,428 |
| I have positive experiences using the Internet. | Statistic | 3,99 | 3,83 | 4,15 | 4,00 | ,824 | ,908 | -,636 | -,043 |
| | Std. Error | ,081 | | | | | | ,216 | ,428 |
| Social Influence | | | | | | | | | |
| I trust that a recommendati | Statistic | 3,69 | 3,53 | 3,86 | 4,00 | ,871 | ,934 | -,241 | -,781 |

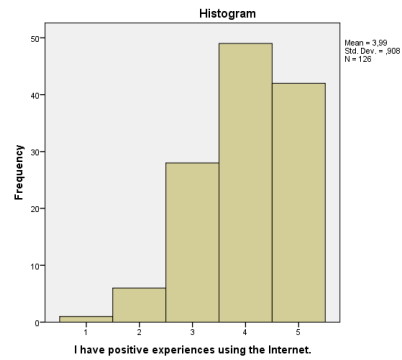
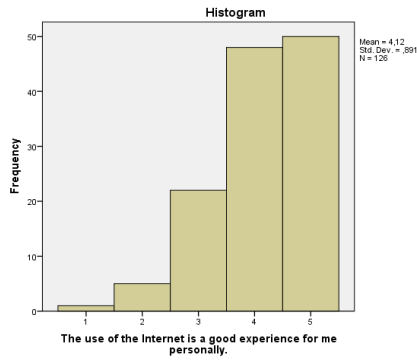
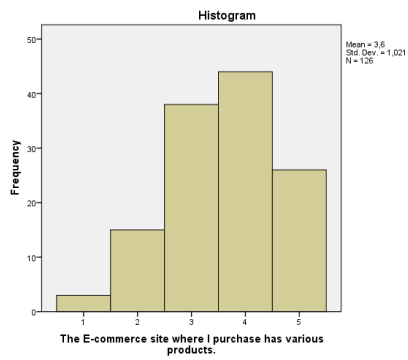
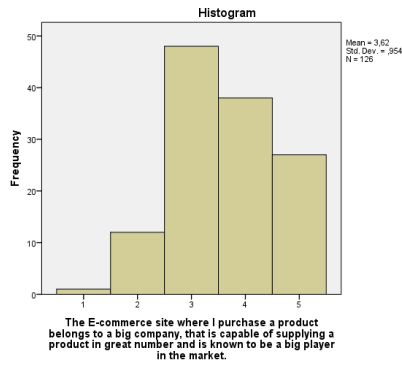
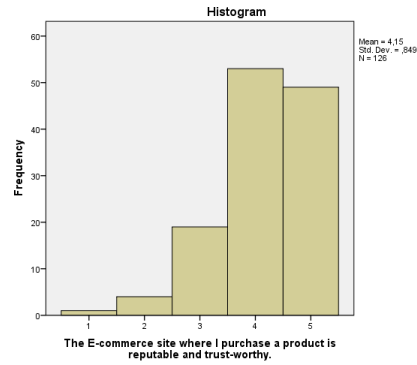
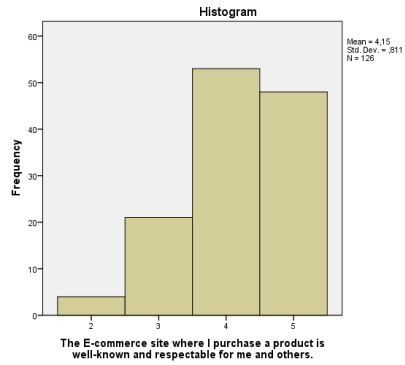
| | | | | | | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|------|------|------|-------|-------|-------|-------|
| on from a friend about an E-commerce site constitutes an honest opinion in general. | Std. Error | ,083 | | | | | | ,216 | ,428 |
| I trust that a review and rate from a friend regarding an E-commerce site is honest. | Statistic | 3,58 | 3,41 | 3,75 | 4,00 | ,950 | ,975 | -,280 | -,454 |
| | Std. Error | ,087 | | | | | | ,216 | ,428 |
| I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | Statistic | 3,62 | 3,45 | 3,79 | 4,00 | ,958 | ,979 | -,470 | -,141 |
| | Std. Error | ,087 | | | | | | ,216 | ,428 |
| I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | Statistic | 3,25 | 3,06 | 3,45 | 3,00 | 1,231 | 1,109 | -,091 | -,827 |
| | Std. Error | ,099 | | | | | | ,216 | ,428 |

Table.10 Descriptive Statistics for factors that affect the trust of consumers in e-commerce.

In the following Figure.4, the distributions are graphically displayed of the above-mentioned factors by using histogram graphs.







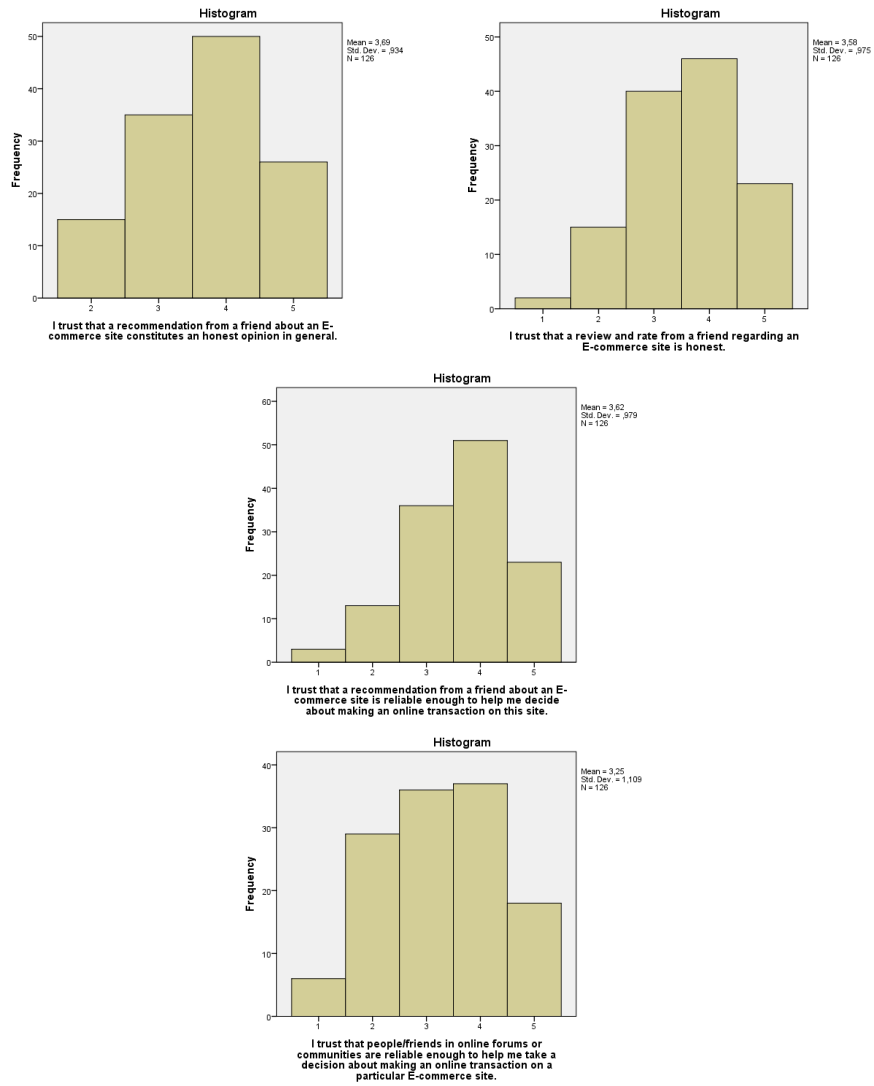


Figure.4 Histograms of factors that affect consumer trust in e-commerce.

4.3 Demographic Characteristics Analysis

In the following, a discussion will take place on the behaviour that results from the consumers' use of e-commerce websites, according to demographic characteristics. Due to the discreet nature of the variables (5-point Likert scale), non-parametric tests will be implemented first, in order to identify whether there is any significant statistical difference based on the internal distributions of the demographic variables. These tests are capable of identifying the differences in distributions between the internal levels, when the assumption of normality of the distributions is violated. In case of normally distributed data, 2-sample t-tests and ANOVA test would be implemented, in order to identify possible variations by using the calculated means of internal samples. In case of dealing with data that are not normally distributed, instead of using the mean of the data as a measure, the rank of the relevant values will be taken into consideration. The relevant t-tests and ANOVA test, when the normality assumption is violated, are Mann-Whitney U-test and the Kruskal-Wallis test, respectively. In the case of the 2-level variable (Gender), the non-parametric test of Mann-Whitney U-Test will be used, while for more than 2 levels, the non-parametric test of Kruskal-Wallis will be made use of. All the tests we will be implemented under a significance level of $\alpha=0.05$. According to their significance values (Sig.), it is attempted to identify any differences in the distributions of the internal levels of the examined variables.

First of all, for the Gender variable, it can be observed that all the significance values exceed 0.05 (Sig.>0.05) for all types of e-commerce websites, and as a conclusion, it can reported that the use of e-commerce websites does not differ based on the Gender. In the following Table.11, the results of the tests are presented.

| Test Statistics^a | | | | |
|------------------------------------|----------------|------------|--------|------------------------|
| | Mann-Whitney U | Wilcoxon W | Z | Asymp. Sig. (2-tailed) |
| E-banking services | 1783,500 | 5269,500 | -,005 | ,996 |
| Booking of Airline Tickets | 1667,000 | 5153,000 | -,618 | ,537 |
| Educational Resources | 1529,500 | 5015,500 | -1,343 | ,179 |
| Trading of stocks | 1671,500 | 2617,500 | -,732 | ,464 |
| Purchasing of goods | 1782,500 | 2728,500 | -,011 | ,992 |
| Participation in E-Auctions | 1766,000 | 2712,000 | -,133 | ,894 |

a. Grouping Variable: Gender

Table.11 Mann-Whitney U-Test on the statistical difference in the consumers' use of e-commerce websites based on Gender.

Regarding the Age variable, in Table.12, a Kruskal-Wallis test is implemented, and it is observed that there is a statistically significant difference in the cases of Trading of Stocks (Sig.=0.029<0.05) and Participation in E-Auctions websites for the internal levels of the Age groups.

| Test Statistics^{a,b} | | | |
|--------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| E-banking services | 5,532 | 5 | ,354 |
| Booking of Airline Tickets | 3,518 | 5 | ,621 |
| Educational Resources | 1,641 | 5 | ,896 |
| Trading of stocks | 12,454 | 5 | ,029 |
| Purchasing of goods | 7,938 | 5 | ,160 |
| Participation in E-Auctions | 17,654 | 5 | ,003 |

a. Kruskal Wallis Test

b. Grouping Variable: Age

Table.12 Kruskal-Wallis Test on the statistical difference in the consumers' use of e-commerce websites based on the Age Group.

In the illustration of the above distributions, it is noticed that an interest in the Trading of Stocks is basically shown by the Age Group of 36-45, and also, in a small percentage, by the 26-35 group. For the other cases, it is observed that values are lower than 3, with the "Not at all" option having the highest percentages. Unfortunately, due to the small sub-samples, it is not possible to generalize the result to Age groups higher than 46 years old. The following Figure.5 presents the results for each Age group according to the Trading of Stocks.

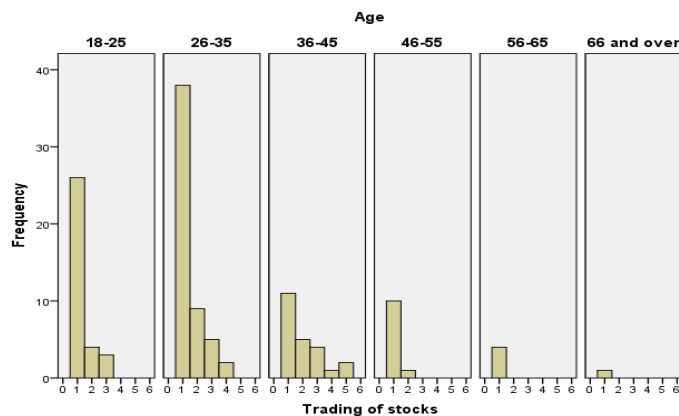


Figure.5 Histograms of the internal distributions of Age Groups according to the Trading of Stocks.

Also, in Table.11, it is observed that the Age groups show statistical differences according to Participation in E-Auctions. As it can be seen in Figure.6, the Age group of 36-45 seems to have an interest in using E-Auctions websites from “Fairly” to “A lot”, while for the other groups, the percentage with the highest difference value refers to the “Not at all” option of using these websites.

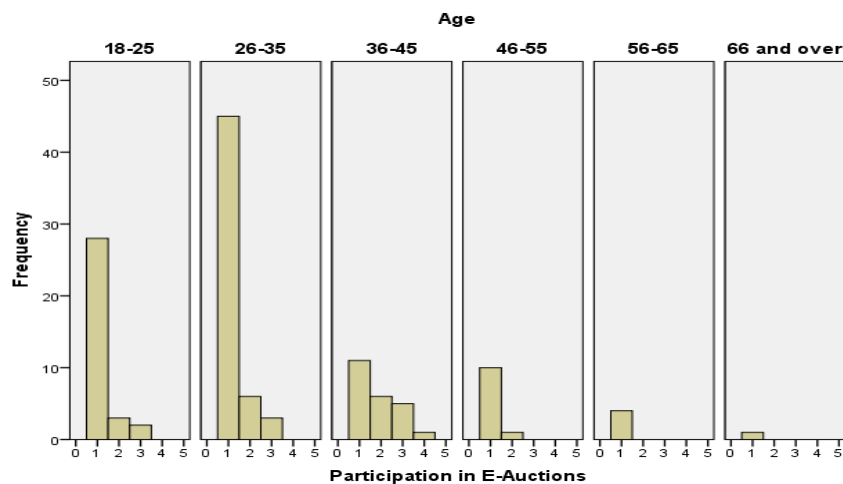


Figure.6 Histograms of the internal distributions of Age Groups according to the Participation in E-Auctions.

Moreover, according to Table.1, the Educational Background factor has a statistically significant difference among its internal distributions in the cases of E-Banking services (Sig.=0.001<0.05) and Educational Resources websites (Sig.=0.022<0.05), while all the other e-commerce sites seem to have no difference in the internal groups.

| Test Statistics ^{a,b} | | | |
|--------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| E-banking services | 22,174 | 6 | ,001 |
| Booking of Airline Tickets | 10,610 | 6 | ,101 |
| Educational Resources | 14,801 | 6 | ,022 |
| Trading of stocks | 9,200 | 6 | ,163 |
| Purchasing of goods | 4,865 | 6 | ,561 |
| Participation in E-Auctions | 7,640 | 6 | ,266 |

a. Kruskal Wallis Test

b. Grouping Variable: Educational background

Table.13 Kruskal-Wallis Test for the statistical difference in the consumers' use of e-commerce websites according to Educational Background.

In the following Figure.7, which refers to E-Banking services, it is obvious that they are used more frequently by people who have a University Degree, and more often than those who hold a Postgraduate Degree, where the highest cumulative percentages are more than “A lot”. On the other hand, for those who are secondary /high school graduates, there is not a certain preference of use, and the same applies to Technical School Graduates. From the results, it is not possible to establish a general view about Primary School graduates, PhD Degree holders, and people with Other Educational Background, due to the small sub-samples.

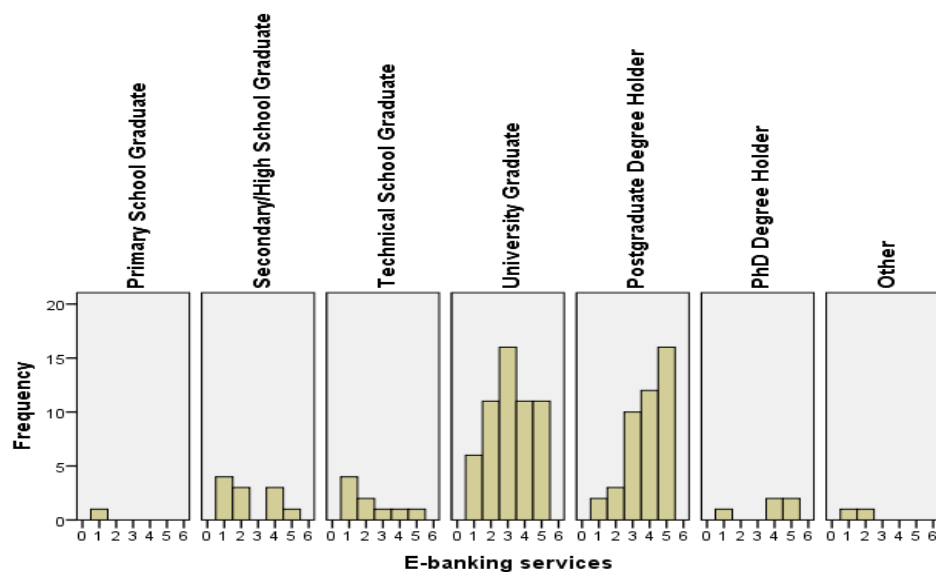


Figure.7 Histograms of the internal distributions of Educational Background according to E-Banking services.

Besides, in Figure.8 it can be seen that, in the case of Educational Resources E-Commerce sites, Postgraduate Degree holders use more frequently this type of E-commerce websites, while University Graduates seem to use it “Fairly”. The results do not seem to have a general impact, according to the other cases, while, for those who are Secondary/High School graduates, they seem to use this source of education “A little”.

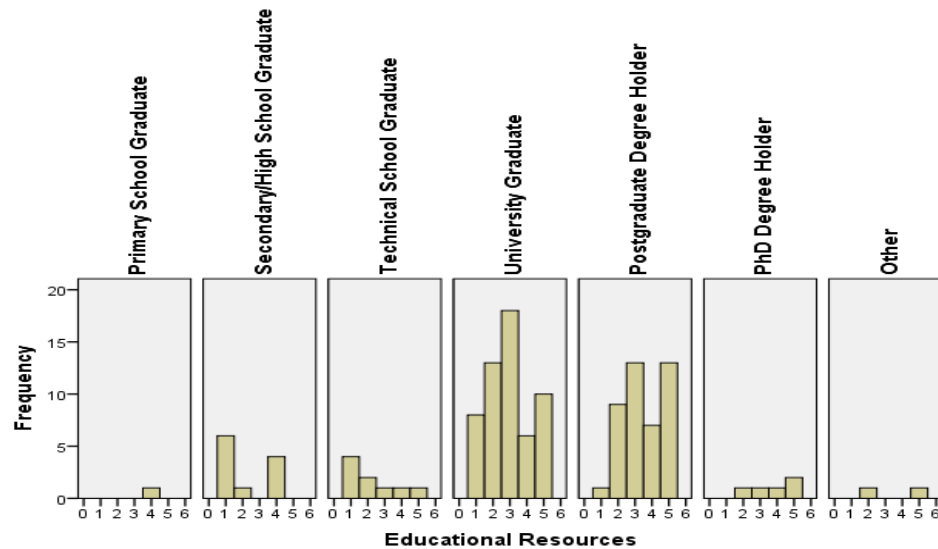


Figure.8 Histograms of the internal distributions of Educational Background according to Educational Resources.

In Table.14, the behaviour is analyzed that refers to the Occupation variable, where, statistically, there is not any specifically different behaviour, according to the consumers' use of E-commerce websites, since all the significance levels are greater than $\text{Sig.} > 0.05$. On the other hand, it is observed that in cases of E-Banking Services and Educational Resources, significance values are close to 0.05, with values of $\text{Sig.} = 0.099 > 0.05$ and $\text{Sig.} = 0.062 > 0.05$, respectively. In these cases, the behaviour that refers to the distribution of these variables is illustrated graphically, in order to identify any evidence of possible asymptotical differences.

| Test Statistics ^{a,b} | | | |
|--------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| E-banking services | 12,046 | 7 | ,099 |
| Booking of Airline Tickets | 6,025 | 7 | ,537 |
| Educational Resources | 13,460 | 7 | ,062 |
| Trading of stocks | 10,872 | 7 | ,144 |
| Purchasing of goods | 11,576 | 7 | ,115 |
| Participation in E-Auctions | 10,359 | 7 | ,169 |

a. Kruskal Wallis Test

b. Grouping Variable: Occupation

Table.14 Kruskal-Wallis Test on the statistical difference in the consumers' use of e-commerce websites according to Occupation.

The Figure.9 below refers to E-Banking services, where it is evident that Private Employees have a strong preference in using E-banking services at least fairly, while in all the other cases, there is not any evidence of the behaviour that refers to the distribution.

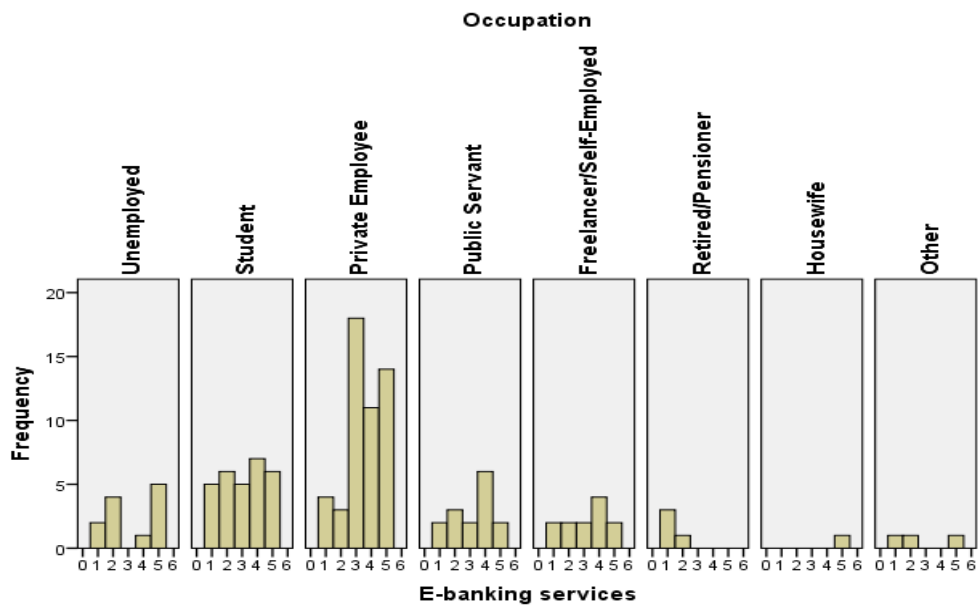


Figure.9 Histograms of the internal distributions of Occupation according to E-banking services.

According to Educational Resources, it is noticed that Students have a main preference in using educational e-commerce sites, while Private Employees seem to have a “Fairly” to “A little” preference in this type of sites. In Figure.10, histograms of Educational Resources that refer to various Occupation levels are presented.

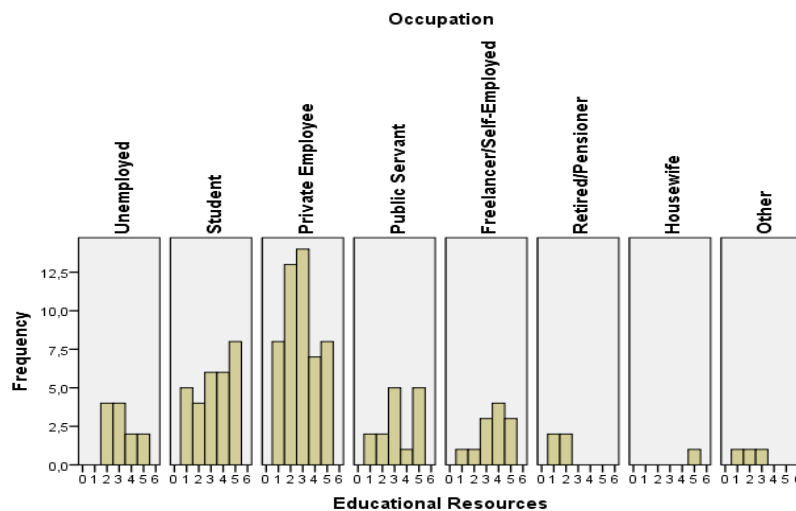


Figure.10 Histograms of the internal distributions of Occupation according to Educational Resources.

Finally, according to Family Income, in Table.15, it can be observed that there is statistically significant value, in the case of consumers' use of Trading of Stocks websites, with $\text{Sig.}=0.046 < 0.05$, indicating a limited distribution difference.

| Test Statistics ^{a,b} | | | |
|--------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| E-banking services | 6,674 | 4 | ,154 |
| Booking of Airline Tickets | 1,295 | 4 | ,862 |
| Educational Resources | 2,916 | 4 | ,572 |
| Trading of stocks | 9,704 | 4 | ,046 |
| Purchasing of goods | ,279 | 4 | ,991 |
| Participation in E-Auctions | 3,676 | 4 | ,452 |

a. Kruskal Wallis Test

b. Grouping Variable: Family Income

Table.15 Kruskal-Wallis Test on the statistical difference in the consumers' use of e-commerce websites according to Family Income.

In this case, the graphical representation of this variable is implemented at the various levels of Family Income. According to Figure.11, it can be seen that, when the family income is between 30,001 and 40,000, the percentage use of Trading of Stock's websites is nearly equal at the various levels, indicating that there is a preference of use that is close to the "Fairly" option. In all the other cases, it can be seen that the "Not at all" option has the highest percentages.

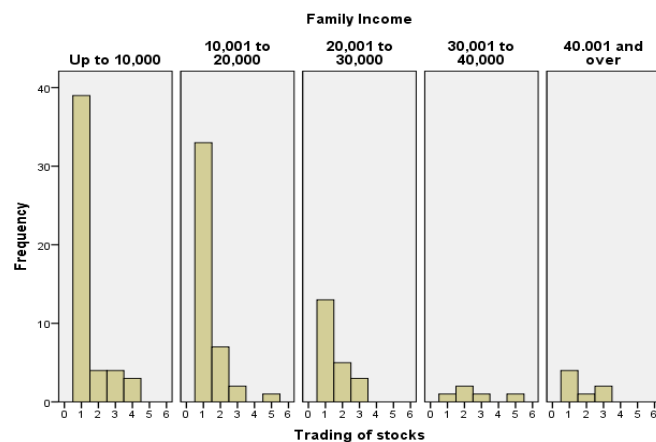


Figure.11 Histograms of the internal distributions of Family Income according to Trading of Stocks.

In the previous chapter of Descriptive and Inferential Statistics, in Table.10, the distributions were analyzed regarding the factors that affect consumer trust in e-commerce according to Web Quality, Perceived Security, Perceived Privacy, Vendor Image, Internet Experience, and Social Influence. In this section, the factors are investigated that have the highest mean scores in each category, and these factors are also analyzed, in terms of the demographic characteristics. In these cases, non-parametric tests, a Mann-Whitney U-test, and a Kruskal-Wallis test will be implemented by carrying out two forms of analyses. At first, the factors with the highest mean scores are selected, and then the tests are conducted, while in the second stage, the mean score of each category is calculated according to the answers that were provided to the internal questions. Therefore, in the secondary analysis, 6 general factors were created, namely Web Quality, Perceived Security, Perceived Privacy, Vendor Image, Internet Experience, and Social Influence and their behaviour was examined according to demographic characteristics.

Firstly, according to the Gender demographic variable, there is no statistically significant difference under a significance level of $\alpha=0.05$ between the behaviour of Females and Males.

| Test Statistics^a | | | | |
|---------------------------------------------------------------------------------------------------------------|-----------------------|---------------|-------|-------------------------------|
| | Mann- Whitney U | Wilcoxon W | Z | Asymp. Sig. (2- tailed) |
| Website Quality | | | | |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 1558,000 | 2504,000 | - | ,212 |
| | | | 1,248 | |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 1751,500 | 2697,500 | -,184 | ,854 |
| Perceived Security | | | | |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 1706,500 | 2652,500 | -,441 | ,659 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 1547,500 | 2493,500 | - | ,194 |
| | | | 1,300 | |

| | | | | |
|----------------------------------------------------------------|----------|----------|-------|------|
| The electronic payment on the Web site is safe. | 1728,000 | 2674,000 | -,328 | ,743 |
| Purchasing through the Web site will not cause financial risk. | 1735,000 | 2681,000 | -,272 | ,785 |

Perceived Privacy

| | | | | |
|--------------------------------------------------------------------------------------|----------|----------|-------|------|
| The Web site complies with personal data protection laws. | 1673,500 | 2619,500 | -,611 | ,541 |
| The Web site only collects user's personal data that are necessary for its activity. | 1666,000 | 2612,000 | -,644 | ,519 |
| The Web site does not provide my personal information to others without my consent. | 1563,000 | 2509,000 | - | ,209 |
| The Web site shows concern for privacy of its users. | 1494,000 | 2440,000 | - | ,115 |
| | | | 1,257 | |
| | | | 1,574 | |

Vendor Image

| | | | | |
|-------------------------------------------------------------------------------------------------|----------|----------|-------|------|
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 1578,500 | 2524,500 | - | ,255 |
| | | | 1,139 | |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 1744,000 | 5230,000 | -,224 | ,823 |

Internet Experience

| | | | | |
|-----------------------------------------------------------------|----------|----------|-------|------|
| The use of the Internet is a good experience for me personally. | 1706,000 | 5192,000 | -,431 | ,666 |
| I have positive experiences using the Internet. | 1740,500 | 5226,500 | -,240 | ,811 |

Social Influence

| | | | | |
|----------------------------------------------------------------------------------------------------------------|----------|----------|-------|------|
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 1647,500 | 2593,500 | -,741 | ,459 |
|----------------------------------------------------------------------------------------------------------------|----------|----------|-------|------|

a. Grouping Variable: Gender

Table.16 Mann-Whitney U-Test on the statistical difference in the highest ranked factors according to Gender.

Following that, a Kruskal-Wallis test is implemented for the highest ranked factors according to the Age group they belong. In Table.17, it is observed that there is no statistically significant difference under $\alpha=0.05$ between the internal distributions of all the examined variables. The only limited case refers to the quality of experience from the use of the Internet on a personal level, where $\text{Sig.}=0.071 > 0.05$.

| Test Statistics ^{a,b} | | | |
|--------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Website Quality | | | |

| | | | |
|----------------------------------------------------------------------------------------------------------------|--------|---|------|
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 3,174 | 5 | ,673 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 6,016 | 5 | ,305 |
| Perceived Security | | | |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 4,586 | 5 | ,468 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 2,293 | 5 | ,807 |
| The electronic payment on the Web site is safe. | 3,202 | 5 | ,669 |
| Purchasing through the Web site will not cause financial risk. | 5,719 | 5 | ,334 |
| Perceived Privacy | | | |
| The Web site complies with personal data protection laws. | 3,650 | 5 | ,601 |
| The Web site only collects user's personal data that are necessary for its activity. | 3,551 | 5 | ,616 |
| The Web site does not provide my personal information to others without my consent. | 3,344 | 5 | ,647 |
| The Web site shows concern for privacy of its users. | 4,841 | 5 | ,436 |
| Vendor Image | | | |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 5,602 | 5 | ,347 |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 4,192 | 5 | ,522 |
| Internet Experience | | | |
| The use of the Internet is a good experience for me personally. | 10,145 | 5 | ,071 |
| I have positive experiences using the Internet. | 8,956 | 5 | ,111 |
| Social Influence | | | |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 3,119 | 5 | ,682 |

a. Kruskal Wallis Test

b. Grouping Variable: Age

Table.17 Kruskal-Wallis Test on the statistical difference in the highest ranked factors according to Age.

In the following Figure.12, the limited case is displayed of personal use of the Internet according to Age. It is observed that for the ages under 35 years old, the highest rate shows an "Agreement", while for older persons up to 55, this rate has been raised. It can be observed that at least there is an "agreement", while the "strong agreement" option has the highest percentage in the biggest part of our sub-samples.

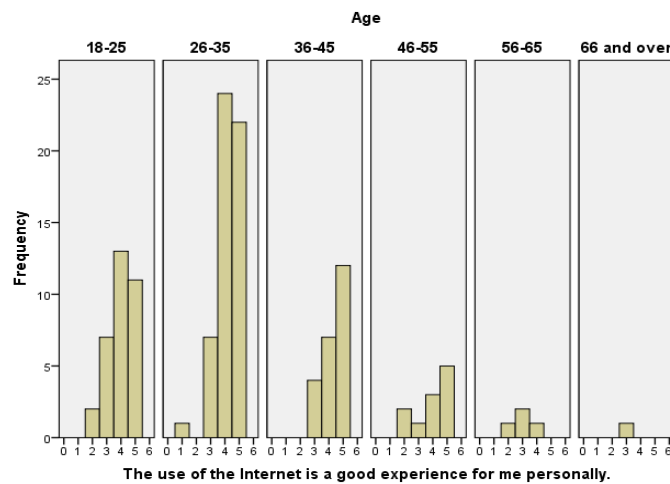


Figure.12 Histograms of the internal distributions of Age according to the personal use of the Internet.

Following that, in Table.18, it is observed that, in terms of Educational Background, in most cases there is no statistically significant difference among the various groups of Educational Background. The only case, in which, there is a (limited) statistically significant difference is according to the experience from the use of Internet (Sig.=0.045<0.05), while limited behaviour also exists in cases when the website complies with personal data protection laws (Sig.=0.086>0.05), when it collects personal data that are necessary for its operation (Sig.=0.096>0.05,) and when the website provides personal information to others without consent (Sig.=0.073).

| Test Statistics^{a,b} | | | |
|---------------------------------------------------------------------------------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Website Quality | | | |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 9,056 | 6 | ,170 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 8,391 | 6 | ,211 |
| Perceived Security | | | |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 8,119 | 6 | ,230 |

| International Hellenic University | MSc in Management | Kyratzi Despoina |
|----------------------------------------------------------------------------------------------------------------|-------------------|------------------|
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 4,528 | 6 ,606 |
| The electronic payment on the Web site is safe. | 5,315 | 6 ,504 |
| Purchasing through the Web site will not cause financial risk. | 8,937 | 6 ,177 |
| Perceived Privacy | | |
| The Web site complies with personal data protection laws. | 11,063 | 6 ,086 |
| The Web site only collects user's personal data that are necessary for its activity. | 10,775 | 6 ,096 |
| The Web site does not provide my personal information to others without my consent. | 11,529 | 6 ,073 |
| The Web site shows concern for privacy of its users. | 9,619 | 6 ,142 |
| Vendor Image | | |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 8,917 | 6 ,178 |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 8,432 | 6 ,208 |
| Internet Experience | | |
| The use of the Internet is a good experience for me personally. | 12,872 | 6 ,045 |
| I have positive experiences using the Internet. | 9,050 | 6 ,171 |
| Social Influence | | |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 8,033 | 6 ,236 |

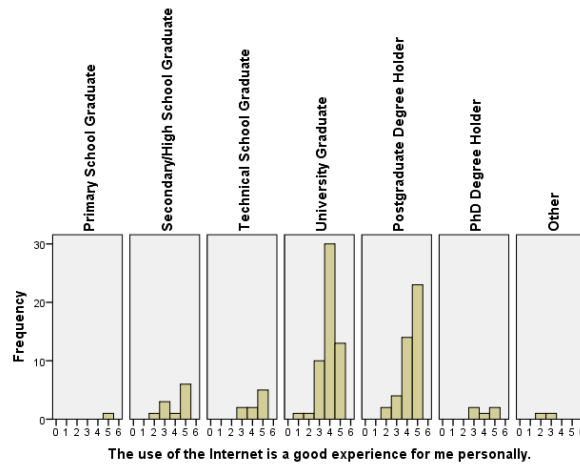
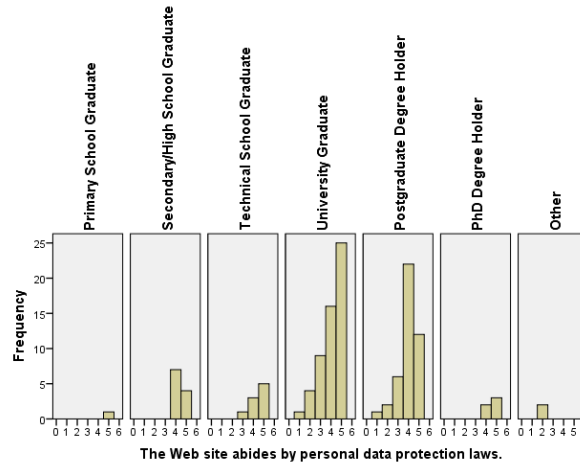
a. Kruskal Wallis Test

b. Grouping Variable: Educational background

Table.18 Kruskal-Wallis Test for statistical difference of highest ranked factors according to Educational Background.

By using graphical representations, in Figure.13, it is observed that, when it comes to personal data protection laws, University Graduates show a stronger agreement than other participants, while Postgraduate Degree holders follow the behaviour of graduates. The same behaviour also exists when the site collects the personal data of users that are necessary for its operation. A difference also refers to university graduates, where, in comparison with postgraduate degree holders, they just seem to agree when it comes to the good experience from the use of the Internet, while postgraduate degree holders have higher scores. Finally, based on the consent of providing personal information, University Graduates mostly show a stronger agreement, while Postgraduate Degree holders have varying agreement results. In all

the other cases, the results do not indicate a strong difference in behaviour; however, due to the lack of samples, it is not possible to generalize this statement.



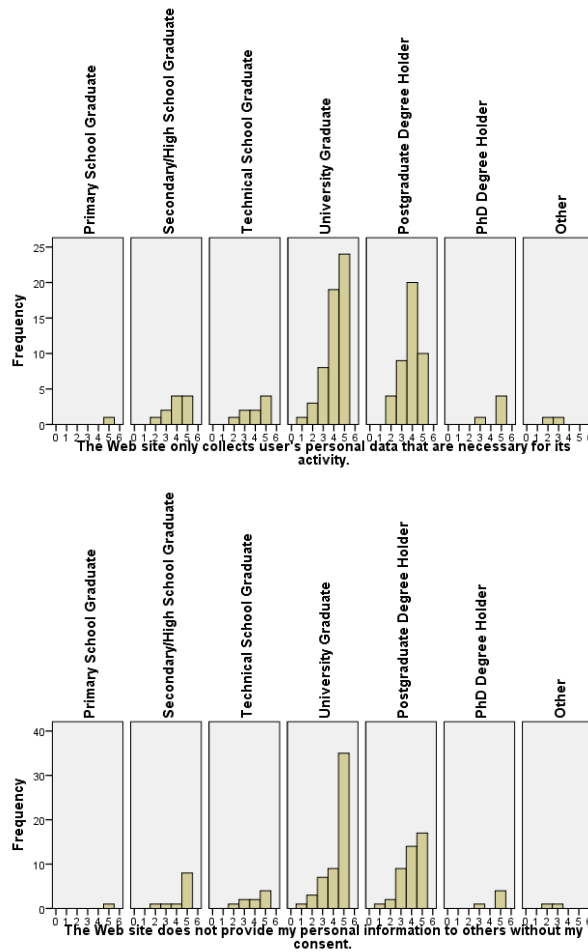


Figure.13 Histograms of the internal distributions of statistically significant factors and limited ones according to Educational Background variable.

Following that, in terms of the Occupation variable, it is observed that, nearly all the factors have non-statistically significant differences among their internal levels. On the other hand, the number of rejected assumptions is limited, in cases where purchasing through a website will not cause financial risk (Sig.=0.067>0.05), the use of Internet is a good experience (Sig.=0.05=a), and when consumers have a positive experience as users when they use the Internet (Sig.=0.073>0.05). Table.19 below presents those results.

| Test Statistics ^{a,b} | | | |
|--------------------------------------------------------------------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Website Quality | | | |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 7,219 | 7 | ,406 |

| | | | |
|---------------------------------------------------------------------------------------------------------------|-------|---|------|
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 4,072 | 7 | ,771 |
|---------------------------------------------------------------------------------------------------------------|-------|---|------|

Perceived Security

| | | | |
|---------------------------------------------------------------------------------------|--------|---|------|
| The Web site has mechanism to ensure the safe transmission of its users' information. | 11,094 | 7 | ,135 |
|---------------------------------------------------------------------------------------|--------|---|------|

| | | | |
|--------------------------------------------------------------------------------------------------------------|-------|---|------|
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 5,306 | 7 | ,623 |
|--------------------------------------------------------------------------------------------------------------|-------|---|------|

| | | | |
|-------------------------------------------------|-------|---|------|
| The electronic payment on the Web site is safe. | 6,595 | 7 | ,472 |
|-------------------------------------------------|-------|---|------|

| | | | |
|----------------------------------------------------------------|--------|---|------|
| Purchasing through the Web site will not cause financial risk. | 13,209 | 7 | ,067 |
|----------------------------------------------------------------|--------|---|------|

Perceived Privacy

| | | | |
|-----------------------------------------------------------|-------|---|------|
| The Web site complies with personal data protection laws. | 5,395 | 7 | ,612 |
|-----------------------------------------------------------|-------|---|------|

| | | | |
|--------------------------------------------------------------------------------------|-------|---|------|
| The Web site only collects user's personal data that are necessary for its activity. | 7,810 | 7 | ,350 |
|--------------------------------------------------------------------------------------|-------|---|------|

| | | | |
|-------------------------------------------------------------------------------------|-------|---|------|
| The Web site does not provide my personal information to others without my consent. | 8,495 | 7 | ,291 |
|-------------------------------------------------------------------------------------|-------|---|------|

| | | | |
|------------------------------------------------------|-------|---|------|
| The Web site shows concern for privacy of its users. | 9,639 | 7 | ,210 |
|------------------------------------------------------|-------|---|------|

Vendor Image

| | | | |
|-------------------------------------------------------------------------------------------------|-------|---|------|
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 9,469 | 7 | ,221 |
|-------------------------------------------------------------------------------------------------|-------|---|------|

| | | | |
|-------------------------------------------------------------------------------|-------|---|------|
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 7,084 | 7 | ,420 |
|-------------------------------------------------------------------------------|-------|---|------|

Internet Experience

| | | | |
|-----------------------------------------------------------------|--------|---|------|
| The use of the Internet is a good experience for me personally. | 14,045 | 7 | ,050 |
|-----------------------------------------------------------------|--------|---|------|

| | | | |
|-------------------------------------------------|--------|---|------|
| I have positive experiences using the Internet. | 12,948 | 7 | ,073 |
|-------------------------------------------------|--------|---|------|

Social Influence

| | | | |
|----------------------------------------------------------------------------------------------------------------|--------|---|------|
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 10,893 | 7 | ,143 |
|----------------------------------------------------------------------------------------------------------------|--------|---|------|

a. Kruskal Wallis Test

b. Grouping Variable: Occupation

Table.19 Kruskal-Wallis Test on the statistical difference in the highest ranked factors according to Occupation.

By using the histograms of the above-mentioned limited rejected assumptions, in Figure.14, it is observed that Students have varying equiprobable scores, whereas purchasing through a website will not cause financial risk, while all the other categories seem to be in agreement. According to the good experience from the use of the Internet on a personal level, Private Employees seem to have a higher score of agreement, in comparison with the other classes, and the same applies to the positive experience as a result of using the Internet.

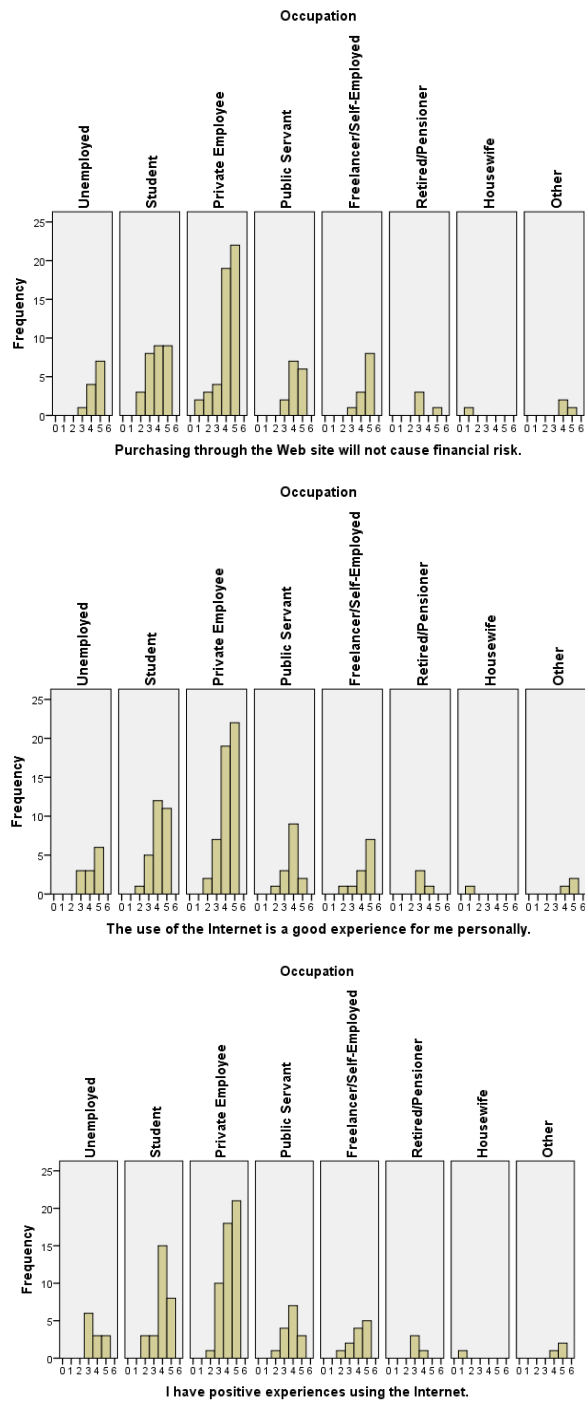


Figure.14 Histograms of the internal distributions of limited statistically significant factors according to the Educational Background variable.

Finally, with regard to the Family Income of the participants, in Table.20, there are no statistically significant differences among the distributions of the internal groups. In this case, there is a limited rejected assumption, when it comes to a website that complies with personal data protection laws (Sig.=0.061>0.05).

| Test Statistics^{a,b} | | | |
|----------------------------------------------------------------------------------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Website Quality | | | |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 3,507 | 4 | ,477 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 1,624 | 4 | ,804 |
| Perceived Security | | | |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 7,111 | 4 | ,130 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 5,156 | 4 | ,272 |
| The electronic payment on the Web site is safe. | 5,903 | 4 | ,206 |
| Purchasing through the Web site will not cause financial risk. | 1,349 | 4 | ,853 |
| Perceived Privacy | | | |
| The Web site complies with personal data protection laws. | 9,016 | 4 | ,061 |
| The Web site only collects user's personal data that are necessary for its activity. | 3,310 | 4 | ,507 |
| The Web site does not provide my personal information to others without my consent. | 3,273 | 4 | ,513 |
| The Web site shows concern for privacy of its users. | 3,120 | 4 | ,538 |
| Vendor Image | | | |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 5,799 | 4 | ,215 |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 1,390 | 4 | ,846 |
| Internet Experience | | | |
| The use of the Internet is a good experience for me personally. | 4,337 | 4 | ,362 |
| I have positive experiences using the Internet. | 4,730 | 4 | ,316 |
| Social Influence | | | |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 3,160 | 4 | ,531 |

a. Kruskal Wallis Test

b. Grouping Variable: Family Income

Table.20 Kruskal-Wallis Test on the statistical difference in the highest ranked factors according to Family Income.

In Figure.15, the distributions are displayed of the internal groups that refer to Family Income, according to the case when a website complies with personal data protection laws. As it can be seen, in lower incomes, percentages of a low impact have a non-zero frequency, while in cases when income is raised, the percentages that refers to a strong impact are higher.

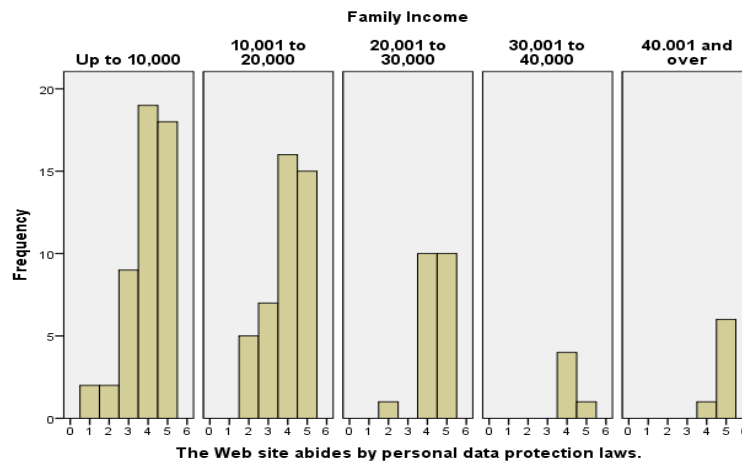


Figure.15 Histograms of the internal distributions of a limited statistically significant factor according to Family Income variable.

In this part of the analysis, as it has already been mentioned above, an overall score will be created for each category of variables, in order to establish the overall effect of trust on each category of factors (e.g. Web Quality Factor, etc.), and examine the effect of trust on categories according to the mean category score. For this reason, the mean score has been calculated per participant for the variables included in each category, and the average effect of each category of variables was determined. The results for all the participants are presented in the following Table.21, with the Perceived Security, Internet Experience, and Perceived Privacy factors having the highest mean scores, indicating that there is a strong effect on trust, according to them, with their scores being 4.23, 4.05, and 4.00, respectively. The factor that has the least effect is the Social Influence, with a mean score of 3.53.

Descriptives

| | | 95% Confidence Interval for Mean | | | | | | | |
|---------------------|------------|-------------------------------------------|------------------------|------------------------|------------|--------------|-----------------------|--------------|--------------|
| | | | Lowe r Boun d | Uppe r Boun d | Media n | Varianc e | Std. Deviatio n | Skewnes s | Kurtosi s |
| | Mean | | | | | | | | |
| Web Quality | Statistic | 3,7963 | 3,6669 | 3,9257 | 3,6667 | ,539 | ,73391 | -,991 | 2,313 |
| | Std. Error | ,06538 | | | | | | ,216 | ,428 |
| Perceived Security | Statistic | 4,2282 | 4,0940 | 4,3623 | 4,3750 | ,579 | ,76093 | -1,170 | 1,458 |
| | Std. Error | ,06779 | | | | | | ,216 | ,428 |
| Perceived Privacy | Statistic | 4,0048 | 3,8539 | 4,1556 | 4,1000 | ,732 | ,85546 | -,593 | -,586 |
| | Std. Error | ,07621 | | | | | | ,216 | ,428 |
| Vendor Image | Statistic | 3,8790 | 3,7622 | 3,9958 | 4,0000 | ,439 | ,66237 | -,415 | ,254 |
| | Std. Error | ,05901 | | | | | | ,216 | ,428 |
| Internet Experience | Statistic | 4,0556 | 3,9054 | 4,2057 | 4,0000 | ,725 | ,85140 | -,818 | ,539 |
| | Std. Error | ,07585 | | | | | | ,216 | ,428 |
| Social Influence | Statistic | 3,5357 | 3,3849 | 3,6865 | 3,6250 | ,732 | ,85540 | -,178 | -,653 |
| | Std. Error | ,07621 | | | | | | ,216 | ,428 |

Table.21 Descriptive Statistics for the created average factors and their effect on trust.

The Figure.16 below displays the histograms of those factors, according to their descriptive measures presented in Table.21.

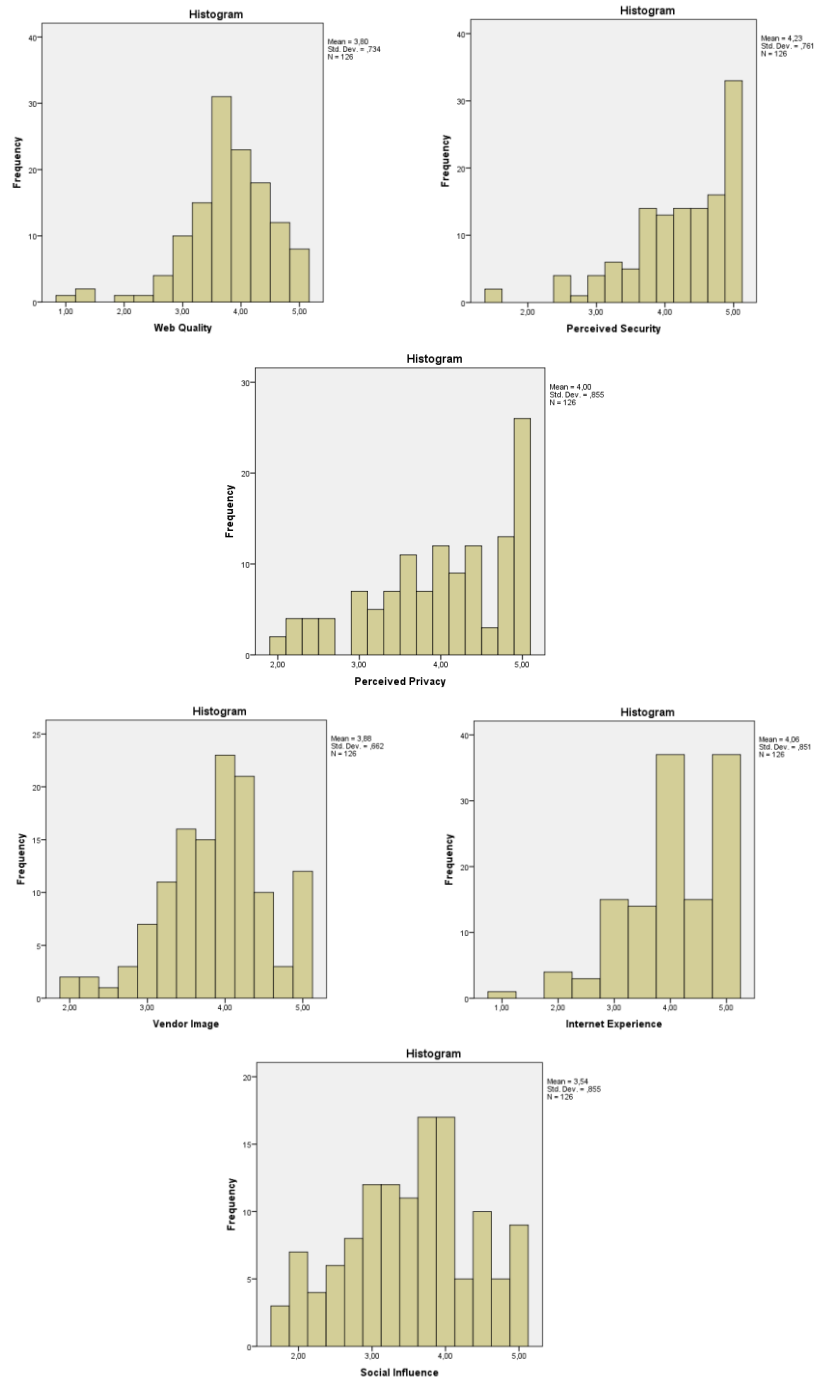


Figure.16 Histograms of categories of Factors that affect the trust of consumers in the use in average.

In order to implement the fitness tests and identify whether there is any effect according to the demographic characteristics of the participants, it is required to test the normality of the distribution of the factors. As it has been reported above, in order to implement a statistical test to identify any differences among the internal distributions, it should be first made clear whether the relevant data are normally distributed or not. Thus, statistical tests that are also called normality tests should be conducted, in order to test

the normality. The Kolmogorov-Smirnov and Shapiro-Wilk normality tests are effective in identifying whether the relevant data are normally distributed or not. Both tests belong to non-parametric distribution tests, and compare the observed data to the quantiles of normal distribution. As a conclusion, these normality tests are implemented under significance level $\alpha=0.05$, and as it can be seen in the following Table.22, there is not any statistically significant acceptance of the normality assumption of the factors in either case.

| | Kolmogorov-Smirnov ^a | | | Shapiro-Wilk | | |
|---------------------|---------------------------------|-----|------|--------------|-----|------|
| | Statistic | df | Sig. | Statistic | df | Sig. |
| Web Quality | ,160 | 126 | ,000 | ,923 | 126 | ,000 |
| Perceived Security | ,155 | 126 | ,000 | ,875 | 126 | ,000 |
| Perceived Privacy | ,133 | 126 | ,000 | ,916 | 126 | ,000 |
| Vendor Image | ,120 | 126 | ,000 | ,962 | 126 | ,001 |
| Internet Experience | ,180 | 126 | ,000 | ,887 | 126 | ,000 |
| Social Influence | ,099 | 126 | ,004 | ,969 | 126 | ,006 |

a. Lilliefors Significance Correction

Table.22 Normality tests on category Factors according to the average effect on trust.

Due to the violations of normality assumptions, non-parametric tests are implemented, in order to identify the differences in the distributions of the effect on trust, according to Demographic characteristics and their internal levels. In Table.23, it is observed that Gender does not seem to have any specific role in the effect on consumer trust, since, for each factor, the significance values are all greater than the significance level $\alpha=0.05$ (Sig.>0.05).

| | Mann-Whitney | | | Asymp. Sig. (2-tailed) |
|---------------------|--------------|------------|--------|------------------------|
| | U | Wilcoxon W | Z | |
| Web Quality | 1633,500 | 2579,500 | -,788 | ,431 |
| Perceived Security | 1628,000 | 2574,000 | -,816 | ,415 |
| Perceived Privacy | 1605,500 | 2551,500 | -,927 | ,354 |
| Vendor Image | 1598,500 | 2544,500 | -,965 | ,334 |
| Internet Experience | 1708,000 | 5194,000 | -,405 | ,685 |
| Social Influence | 1519,000 | 2465,000 | -1,372 | ,170 |

a. Grouping Variable: Gender

Table.23 Mann-Whitney U-Test on the statistical difference in category Factors according to Gender.

In Table.24, the Age group demographic variable shows non-statistically significant differences among the internal levels, according to category factors, since all the significance levels are greater than 0.05 (Sig.>0.05). On the other hand, in the case of Internet Experience, it is observed that there is a limited acceptance of the non-difference among the internal values, since Sig.=0.089>0.05. In that case, a graphical representation of the internal distributions will be used, by making use of histograms.

| Test Statistics^{a,b} | | | |
|--------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Web Quality | 4,323 | 5 | ,504 |
| Perceived Security | 2,108 | 5 | ,834 |
| Perceived Privacy | 4,383 | 5 | ,496 |
| Vendor Image | 6,051 | 5 | ,301 |
| Internet Experience | 9,550 | 5 | ,089 |
| Social Influence | ,981 | 5 | ,964 |

a. Kruskal Wallis Test

b. Grouping Variable: Age

Table.24 Kruskal-Wallis Test on the statistical difference in category factors according to Age Group.

In Figure.17 below, it can be seen that there is a slight increase in the mean score when age increases, and especially in the 36-45 group, while there is a nearly equal distribution with the 26-35 group of ages.

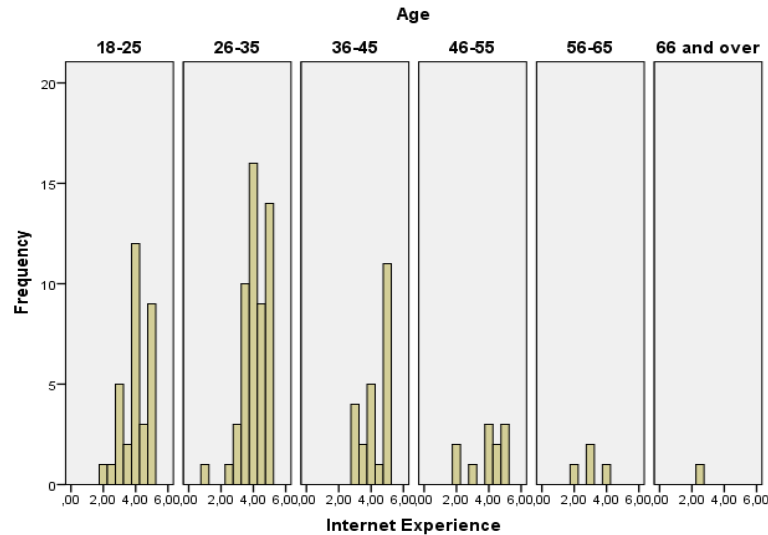


Figure.17 Histograms of the Internet Experience Factor according to Age Group.

According to Educational Background, in Table.25, it can be observed that there is no statistically significant difference among the internal levels, due to the significance levels of $\text{Sig.} > 0.05$. Also, in this case, there is a limited acceptance in the case of Vendor Image Factor ($\text{Sig.} = 0.073 > 0.05$).

| Test Statistics ^{a,b} | | | |
|--------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Web Quality | 9,079 | 6 | ,169 |
| Perceived Security | 6,087 | 6 | ,414 |
| Perceived Privacy | 10,384 | 6 | ,109 |
| Vendor Image | 11,531 | 6 | ,073 |
| Internet Experience | 9,943 | 6 | ,127 |
| Social Influence | 7,263 | 6 | ,297 |

a. Kruskal Wallis Test

b. Grouping Variable: Educational background

Table.25 Kruskal-Wallis Test on the statistical difference in category factors according to Educational Background.

In the following Figure.18, it can be observed that there is an agreement in the distribution of University Graduates and Postgraduate Degree holders with mean scores that vary from 3 to 4, while, in the other cases, the result is not obvious and cannot be generalized.

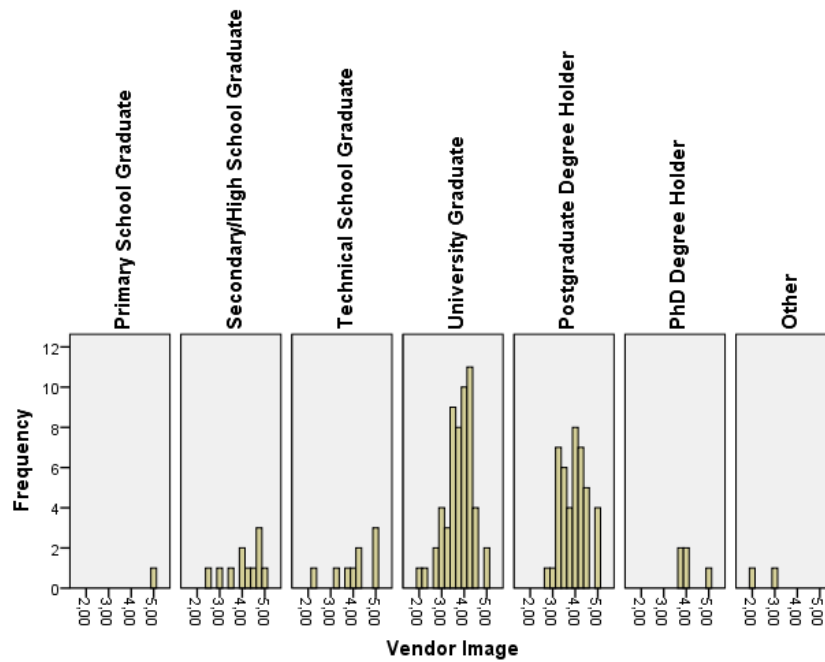


Figure.18 Histograms of the Vendor Image Factor according to Educational Background.

A demographic characteristic that should be considered is the Occupation of the participants. As it has already been reported above, there is no statistically significant difference among the internal levels of occupation. In the current state, 2 limited cases can also be observed, where the equality of behavior and occupation is accepted. The most limited one refers to Social Influence, with $\text{Sig.}=0.051>0.05$, and the other one to Internet Experience, with a significance value of $\text{Sig.}=0.066>0.05$. The following Table.26 presents the results of the Kruskal-Wallis test.

| Test Statistics ^{a,b} | | | |
|--------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Web Quality | 7,109 | 7 | ,418 |
| Perceived Security | 8,848 | 7 | ,264 |
| Perceived Privacy | 6,831 | 7 | ,447 |
| Vendor Image | 12,032 | 7 | ,100 |
| Internet Experience | 13,263 | 7 | ,066 |
| Social Influence | 14,020 | 7 | ,051 |

a. Kruskal Wallis Test

b. Grouping Variable: Occupation

Table.25 Kruskal-Wallis Test on the statistical difference in category factors according to Occupation.

In the Figure.19, the distributions of the internal levels of Occupation can be observed, according to Internet Experience and Social Influence. It can also be observed that Students and Private Employees have higher mean scores than the other cases, both in the Social Influence and the Internet Experience category factors.

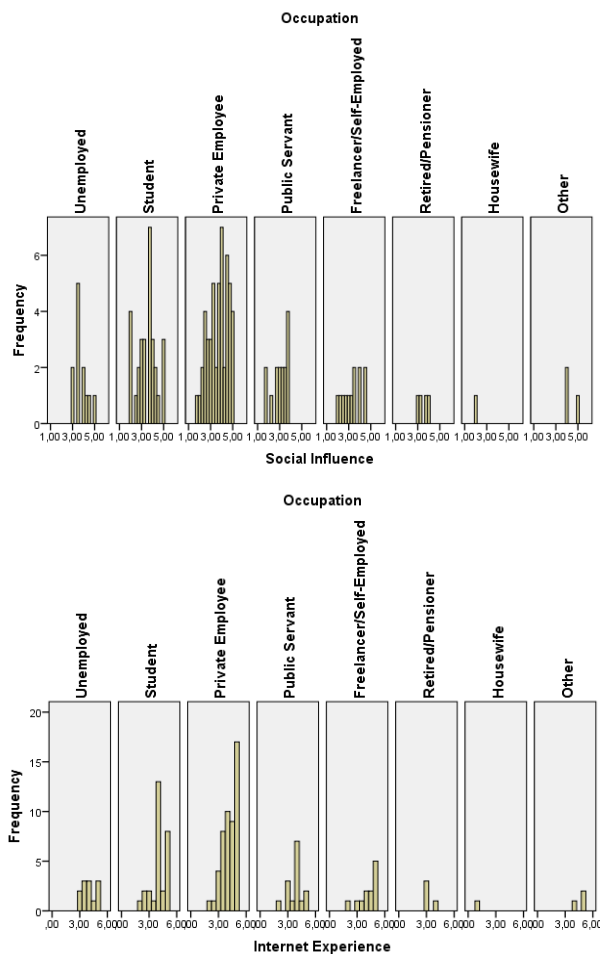


Figure.19 Histograms of the Social Influence and Internet Experience Factors according to Educational Background.

Finally, according to Family Income, in Table.26, it can be seen that, under a significance level of $\alpha=0.05$, there is no statistically significant difference in the behaviour of the factors, according to the internal levels of income, since each significance value is greater than 0.05 (Sig.>0.05).

| Test Statistics^{a,b} | | | |
|--------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| Web Quality | 7,081 | 4 | ,132 |
| Perceived Security | 4,811 | 4 | ,307 |
| Perceived Privacy | 4,723 | 4 | ,317 |
| Vendor Image | 3,590 | 4 | ,464 |
| Internet Experience | 5,070 | 4 | ,280 |
| Social Influence | 4,746 | 4 | ,314 |

a. Kruskal Wallis Test

b. Grouping Variable: Family Income

Table.26 Kruskal-Wallis Test on the statistical difference in category factors according to Family Income.

The findings that emerge from this research assignment are highly interesting, since they cover part of the research gap that exists in Greece with regard to the investigation of those factors that determine the level of trust of consumers in electronic commerce. However, it is not possible to generalize these results to the overall population, since the research sample is extremely small and its selection was carried out through convenient sampling. Therefore, it is proposed to conduct future research on a larger number of Greek consumers who will be selected through the random sampling method, in order to be possible to generalize the results.

5. Conclusions

In this questionnaire survey, an analysis was carried out of the effect on consumer trust in using e-commerce websites and making online transactions. According to descriptive statistics, it can be noticed that, last year, 45.20% of the participants made more than 10 online purchases, while a percentage that is equal to nearly 20% (19.8%) made 4-5 online purchases. In terms of the use of Websites, it can be observed that the most frequent use of e-commerce websites refers to Purchasing of Goods (Mean Score=3.37), E-Banking Services (Mean Score=3.26), and Educational Resources (Mean Score=3.07) while the least frequent use refers to Participation in E-Auctions (Mean Score=1.31).

Based on a further analysis according to the Demographic characteristics, it can be observed that Gender does not have any effect on behaviour regarding the preference of use, according to the above-mentioned websites. On the other hand, the Age Group factor shows statistically significant differences among the internal groups in the use of

Trading of Stocks (Sig.=0.029<0.05) websites and Participation in E-Auctions (Sig.=0.003<0.05), where in both cases, the age group of 36-45 shows a higher frequency in using this type of websites, instead of the other ones. Moreover, due to the Educational Background of the participants, it can be seen that there is a statistically significant difference in the frequency of use according to E-Banking Services (Sig.=0.001<0.05) and Educational Resources (Sig.=0.022<0.05), where there is a higher rate of use, when a participant is a University Graduate or a Postgraduate Degree holder. Furthermore, Occupation does not seem to have any statistically significant effect, due to the fact that its significance values are greater than 0.05 for all the websites. On the other hand, some limited acceptance of the non-statistically significant results is observed, in the cases of E-Banking Services (Sig.=0.099>0.05) and Educational Resources (Sig.=0.062>0.05), where, in the first case, there is a higher use by Private Employees than the other groups, and in the second case, Students show a higher frequency of use of Educational Resources, while only a small percentage of Private Employees seem to show an interest. Finally, the Family Income variable seems to have different statistically significant frequencies of use, in the case of Trading of Stocks (Sig.=0.046<0.05), when it comes to incomes between 30,001 and 40,000, where the “fairly” option applies to the use, while for the other ones, their frequency of use seems to vary from “little” to “fairly”. The above results actually confirm the views of Siomkos (2013) and Kottler and Kottler (2006) that, in many cases, the demographics of consumers affect their buying behaviour.

Regarding the effect that these factors have on the trust in making online transactions descriptive and inferential statistics measurements were implemented. Firstly, according to Web Quality, it can be seen that, when a website provides useful and reliable information, and when it provides sufficient information about transactions, it reports the highest ratings (Mean Score 4.06 and Mean Score=4.02, respectively), while Web Design does not seem to have any specific effect (Mean Score=3.31). The high quality of online stores has also been identified in other surveys as a key factor that sets consumer trust to high levels (Hidayanto et al., 2014; Lee et al., 2018; Mazhar et al., 2011; Sohaib et al., 2019; Vega, 2015).

Regarding Perceived Security, the participants are mainly concerned about the safety of electronic payment on the website (Mean Score=4.37), and whether there is any mechanism to ensure this safety of data transmission (Mean Score=4.33). Also, users want to ensure that their data are protected from hackers, and they will not be put in financial risk (Mean Score=4.11, respectively). The positive impact of the low perceived risk in shaping consumer trust has also been identified in other surveys that have been conducted with a similar objective (Eid, 2018; Lee et al., 2018; Mazhar et al., 2011; Sohaib et al., 2019; Vega, 2015).

According to Perceived Privacy, the highest score (Mean Score=4.21) refers to users who are concerned about a website that provides their private data to others without their consent, and also whether a website complies with personal data protection laws (Mean Score=4.10). A low perceived risk of consumer privacy violation has also been demonstrated in the surveys of Eid (2018) and Vega (2015) as a key determinant of consumer trust in e-commerce.

Moreover, regarding the Vendor Image category, users want the E-commerce site to be well-known and respectable, reputable, and trustworthy (Mean Scores=4.15, respectively). This parameter has been identified in earlier surveys, as well, such as those of Connolly and Bannister (2007), Hidayanto et al. (2014), Lee et al. (2018), Mazhar et al. (2011), and Sohaib et al. (2019).

Furthermore, according to Internet Experience, they have reported that, on a personal level, the use of the Internet is a good experience with positive outcomes (Mean Scores=4.12 and Mean Score=3.99, respectively). The same factors were identified as determinants of the level of consumer trust in e-commerce in the surveys conducted by Connolly and Bannister (2007), and Rybak (2018), as well.

Finally, with regard to Social Influence, users seem to agree with the statement that they trust the recommendation of a friend about an e-commerce site, and view it is an honest opinion, in general (Mean Score=3.69), while they seem to neither agree nor disagree with the statement that they trust friends on online forums to be reliable enough to help them in making an online transaction (Mean Score=3.25). The results of this survey show some differentiation, compared to the results of the survey of Sohaib et al. (2019),

where the influence of relatives and friends is key to determining the level of consumer trust in e-commerce.

In order to identify the difference in the behaviour that refers to the factors that affect the trust of users while making online transactions, the non-parametric tests of Mann-Whitney and Kruskal-Wallis were implemented on the required demographic variables. It was chosen to analyze this behavior by using the both the highest rated factors according to mean scores and by analyzing the average score of each participant in every category mentioned. Firstly, according to Gender, it can be seen that there is no statistically significant difference in the behaviour that refers to the factors, whether the participant is Female or Male. According to Age group, it can be observed that there is no statistically significant different behaviour in the effect on consumer trust. Regarding the Age group variable, it can be seen that there is limited acceptance ($\text{Sig.}=0.071>0.05$) of the previously mentioned statement, when it comes to the good experience from the use of the Internet on a personal level, where ages under 35 seem to have various rates, with the highest rated option referring to the agreement, while for people from 46-55 years old, there is a preference in strong agreement.

In the case of Educational Background, it can be seen that there is only one statistically significant difference in the behaviour, regarding again the good experience from the use of the Internet on a personal level ($\text{Sig.}=0.045<0.05$), while there is limited acceptance of the non-difference in behaviour, in cases when a site complies with personal data protection laws ($\text{Sig.}=0.086>0.05$), it only collects the personal data of users that are necessary for its activities ($\text{Sig.}=0.096>0.05$), and when the website does not provide any personal information to others without personal consent ($\text{Sig.}=0.073>0.05$). It can be observed in those cases, that University Graduates and Postgraduate Degree holders have a stronger agreement than other ones, when it comes to personal data protection and the collection of personal data users that are necessary for the website's operation. Also, Postgraduate Degree holders have higher scores of agreement than University Graduates, according to the good experience from the use of Internet, and finally, when it comes to the consent of providing personal data, Postgraduate Degree holders have varying scores, while University Graduates mostly show a strong agreement. In the case of Occupation, it is observed that there are no

statistically significant differences in the behaviour that refers to the factors, according to its internal levels; however, there are limited cases where the significance levels are slightly greater than 0.05. These cases refer to purchasing through the website that will not cause financial risk (Sig.=0.067>0.05), that the use of the Internet is a good experience (Sig.=0.05=a), and when consumers have positive experiences as users, when they use the Internet (Sig.=0.073>0.05). In these cases, it is observed that Students have varying equiprobable scores while purchasing through the website, that this will not cause financial risk, while all the other categories seem to have an agreement in their distributions. Also, according to the good experience from the use of the Internet on a personal level, Private Employees seem to have a higher score of agreement, in comparison with the other levels, and the same applies to the positive experiences from using the Internet. The last demographic variable to analyze is the variable of Family Income, where, as it happened with the other demographic variables, there are no statistically significant differences in the effect that the factors have on trust, due to significance values that are greater than 0.05. In this variable, a limited non-effect can be observed, when a website complies with personal data protection laws (Sig.=0.061>0.05), where it is observed that, in lower incomes, there also non-zero percentages of a low effect, while, when income increases, the percentages increase, as well, and refer to a strong agreement.

Finally, by using the combined information of the factors that create an overall category, the factors are introduced that refer to the average effect, namely Web Quality, Perceived Security, Perceived Privacy, Vendor Image, Internet Experience, and Social Influence. The analysis of the effect on the trust of the participants in the survey, regarding the demographic variables, is repeated. First, it is observed that Gender is not a characteristic that may cause any differences in the effect on trust. This aspect has been identified in the survey conducted by Yoon and Occena (2015), as well. However, it should be reported that, in other surveys, such as that of Mazhar et al. (2011), gender seems to affect significantly consumer trust in e-commerce, and the factors that shape it.

The Age characteristic has limited acceptance, when it comes to the indifferent effect of Internet Experience (Sig.=0.089>0.05), where, through further analysis, it is observed

that, when age is under 35 (group ages with a maximum age that is equal to 35), the participants show an agreement, while, for the remaining groups, there is not enough evidences to identify a behaviour. The fact should be pointed out that, in a number of surveys, age seem to play a differentiating role in the factors that determine the trust of consumers in electronic commerce, as well as overall consumer trust, such as the surveys conducted by Yoon and Occena (2015), and Mazhar et al. (2011).

In the case of Educational Background, limited acceptance of a non-effect is observed for the factor of Vendor Image (Sig.=0.073>0.05), where University Graduates and Postgraduate Degree holders have an agreement, according to their scores (they seem to show an agreement on the effect), while there is no evidence for the other levels of education to identify their behaviour. The results of this survey contradict with the findings of Mazhar et al. (2011), where the educational background of consumers determines to a large extent their trust in the use of e-commerce. When it comes to Occupation, it is observed that the limited non-effect refers to Internet Experience (Sig.=0.061>0.05), and Social Influence (Sig.=0.051>0.05), where there is a trend for agreement, when a participant is either a Student or a Private Employee. Finally, the Family income demographic characteristic does not result in any difference in the effect, according to the variables under investigation.

In the current analysis all the required statistical methods were implemented, in order to investigate further the research topic regarding Consumer Behavior. First, the reliability of the questionnaire was tested using the Cronbach's Alpha internal consistency coefficient, while for the rest analysis, descriptive and inferential statistical methods have been used. In the first part the descriptive statistical measures were presented in order to express the behavior of the variables, while for the rest, there were implemented the required statistical tests for distribution assumptions and homogeneity of inner distributions according to demographic characteristics. Normality tests such as Kolmogorov-Smirnov and Shapiro-Wilk have been used, while for the homogeneity of the inner distributions it was tested by using Mann-Whitney U-test and Kruskal-Wallis test. Our goals are to further investigate the most common websites used by Greek consumers regarding online transactions, how they differ by demographics,

which factors determine the trust of Greek consumers in e-commerce and how they differ by demographics.

In conclusion, the questionnaire had an excellent internal consistency with a Cronbach's Alpha coefficient $\text{Coef.} = 0.909$. The most used websites are those regarding Purchasing Goods and E-Banking services, while the least frequent are those regarding participation in E-Auctions. Regarding demographic analysis, it can be seen that Age and Educational Background are statistically significant characteristics regarding the online transactions. As it concerns the factors which determine the trust of Greek consumers in e-commerce sites, it is observed that Perceived Security, Perceived Privacy and Internet Experience factors have the highest scores while Social Influence factors have the lowest one. In this case, according to demographic characteristic, a clear conclusion regarding the differences appeared in initial levels may not be found, due to the limited statistical non-significant values of the Age Group, Educational Background and Occupation status.

Bibliography

- Cohen, L., Manion, L. & Morrison, K. (2007). *Educational Research Methodology*. Athens: Metaichmio.
- Conolly, R. & Bannister, F. (2007). Consumer Trust in Electronic Commerce: Social & Technical Antecedents. *World Academy of Science, Engineering and Technology*, 34, 239-248.
- Creswell, J.W. (2011). *Research in education. Planning, conducting, and evaluating quantitative and qualitative research*. Athens: Ion-pub. Ellin.
- Eid, M. (2011). Determinants of e-commerce customer satisfaction, trust, and loyalty in Saudi Arabia. *Journal of Electronic Commerce Research*, 12(1), 78-93.
- Gupta, P. & Dubey, A. (2016). E-Commerce- Study of Privacy, Trust and Security from Consumer's Perspective. *International Journal of Computer Science and Mobile Computing*, 5(6), 224-232.
- Habibi, R. & Hajati, Z. (2015). Trust in e-commerce. *International Journal of Innovation and Applies Studies*, 10(3), 917-912.
- Hidayanto, A.N., Herbowo, A., Budi, N. & Sucahyo, Y.G. (2014). Determinant of customer trust on e-commerce and its impact to purchase and word of mouth intention: a case of Indonesia. *Journal of Computer Science*, 10(12), 2395-2407.
- Kotler, P. & Koller, K.L. (2006). *Marketing Management*. Athens: Klidarithmos
- Kumar, P. & Kumar, S. (2014). E-business: Pros and cons in Customer Relationship Management. *International Journal of Management and International Business Studies*, 4(3), 349-356.
- Lee, S.J., Ahn, C., Song, K.M. & Ahn, H. (2018). Trust and distrust in E-Commerce. *Sustainability*, 10, <https://doi.org/10.3390/su10041015>.

Menaka, B. & Seethal, K. (2018). Recent Trends in E-Commerce. *Shanlax International Journal of Commerce*, 6(1), 40-44.

Mlelwa, K.L., Chachage, B. & Zaipuna, Y. (2015). E-Commerce Trend in Developing Countries: A Case Study of Tanzania. *International Journal of Computer Applications*, 125(1), 27-33.

Niranjanamurthy, M., Kavyashree, N., Jagannath, & Chadar, D. (2013). Analysis of E-Commerce and M-Commerce: Advantages, Limitations and Security issues. *International Journal of Advanced Research in Computer and Communication Engineering*, 2(6), 2360-2370.

Papadopoulou, P., Andreou, A., Kanellis, P. & Martakos, D. (2001). Trust and relationship building in electronic commerce. *Internet Research: Electronic Networking Applications and Policy*, 11(4), 322-332.

Pomportsis, A. & Tsoufas, A. (2002). *Introduction to E-Commerce*. Thessaloniki: Tziolas.

Rybak, A. (2018). Consumer trust in e-commerce: The case of Poland. *Folia Oeconomica Stetinensia*, 18(2), 59-71.

Schneider, G. (2015). *E-Commerce*. Athens: Giurdas.

Shahriari, S., Shahriari, M. & Gheiji, S. (2015). E-Commerce and its impacts on global trend and market. *International Journal of Research Granthaalayah*, 3(4), 49-55.

Shettar, R. (2016). Emerging trends of e-commerce in India: An empirical study. *International Journal of Business and Management Invention*, 5(9), 25-31.

Siomkos, G. (2013). *Strategic Marketing*. Athens: Stamoulis.

Sohaib, O., Kang, K. & Nurunnabi, M. (2019). Gender-Based iTrust in E-Commerce: The Moderating Role of Cognitive Innovativeness. *Sustainability*, 11, doi:10.3390/su11010175.

Thomas, S. & Jose, P. (2015). Recent Trends in E-Commerce. *International Research Journal of Engineering and Technology*, 2(6), 773-775.

Vadwala, A. & Vadwala, M. (2017). E-Commerce: Merits and Demerits A Review Paper. *International Journal of Trend in Scientific Research and Development*, 4(4), 117-120.

Vega, J.A. (2015). Determiners of Consumer Trust towards Electronic Commerce: An Application to Puerto Rico. *Esic Market Economics and Business Journal*, 46(1), 125-147.

Yoon, H.S. & Occena, L. (2015). Influencing factors of trust in consumer-to-consumer electronic commerce with gender and age. *International Journal of Information Management*, 35, 352-363.

Appendix A

QUESTIONNAIRE**Section 1: Consumer Use of E-commerce Websites**

1. Which of the following Websites do you use and to what degree? (1=not at all, 2=a little, 3=fairly, 4=a lot, 5=very much)

| | 1 | 2 | 3 | 4 | 5 |
|-----------------------------|---|---|---|---|---|
| E-banking services | | | | | |
| Booking of Airline Tickets | | | | | |
| Educational Resources | | | | | |
| Trading of stocks | | | | | |
| Purchasing of goods | | | | | |
| Participation in E-Auctions | | | | | |

2. How many e-purchases did you make the last year? (Choose one of the followings)

| | |
|-------------|--|
| 1 | |
| 2-3 | |
| 4-5 | |
| 6-10 | |
| 11 and over | |

Section 2: Factors that affect consumer trust in e-commerce

3. To what degree, do the factors below affect your trust in making online transactions?

| Web Quality | | 1 | 2 | 3 | 4 | 5 |
|-------------|--------------------------------------------------------------------------------------------------|---|---|---|---|---|
| 3.1 | The E-commerce site where I purchase a product, provides useful and reliable information for me. | | | | | |

| | | | | | | |
|---------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 3.2 | The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | | | | | |
| 3.3 | The E-commerce site I choose, has an interesting web design. | | | | | |
| Perceived Security | | | | | | |
| 3.4 | The Web site has mechanism to ensure the safe transmission of its users' information. | | | | | |
| 3.5 | The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | | | | | |
| 3.6 | The electronic payment on the Web site is safe. | | | | | |
| 3.7 | Purchasing through the Web site will not cause financial risk. | | | | | |
| Perceived Privacy | | | | | | |
| 3.8 | The Web site complies with personal data protection laws | | | | | |
| 3.9 | The Web site only collects user's personal data that are necessary for its activity. | | | | | |
| 3.10 | The Web site does not provide my personal information to others without my consent. | | | | | |
| 3.11 | I feel safe when sending my personal information to the Web site. | | | | | |
| 3.12 | The Web site shows concern for privacy of its users. | | | | | |
| Vendor Image | | | | | | |
| 3.13 | The E-commerce site where I purchase a product is well-known and respectable for me and others | | | | | |
| 3.14 | The E-commerce site where I purchase a product is reputable and trust-worthy. | | | | | |
| 3.15 | The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | | | | | |
| 3.16 | The E-commerce site where I purchase has various products. | | | | | |
| Internet Experience | | | | | | |
| 3.17 | The use of the Internet is a good experience for me personally | | | | | |
| 3.18 | I have positive experiences using the Internet | | | | | |
| Social Influence | | | | | | |
| 3.19 | I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | | | | | |

| | | | | | | |
|------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| 3.20 | I trust that a review and rate from a friend regarding an E-commerce site is honest. | | | | | |
| 3.21 | I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | | | | | |
| 3.22 | I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | | | | | |

Section 3: Demographics

4. Gender

| | |
|--------|--|
| Female | |
| Male | |

5. Age

| | |
|-------------|--|
| 18-25 | |
| 26-35 | |
| 36-45 | |
| 46-55 | |
| 56-65 | |
| 66 and over | |

6. Educational background

| | |
|--------------------------------|--|
| Primary School Graduate | |
| Secondary/High School Graduate | |
| Technical School Graduate | |
| University Graduate | |
| Postgraduate Degree Holder | |
| PhD Degree Holder | |
| Other | |

7. Occupation

| | |
|--------------------------|--|
| Unemployed | |
| Student | |
| Private Employee | |
| Public Servant | |
| Freelancer/Self-Employed | |
| Retired/Pensioner | |
| Housewife | |
| Other | |

8. Family income

| | |
|------------------|--|
| up to 10,000 | |
| 10,001 to 20,000 | |
| 20,001 to 30,000 | |
| 30,001 to 40,000 | |
| 40.001 and over | |

Appendix B

| Test Statistics^a | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------|---------------|-------|-------------------------------|
| | Mann- Whitney U | Wilcoxon W | Z | Asymp. Sig. (2- tailed) |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 1558,000 | 2504,000 | - | ,212 |
| | | | 1,248 | |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 1751,500 | 2697,500 | -,184 | ,854 |
| The E-commerce site I choose, has an interesting web design. | 1638,500 | 2584,500 | -,798 | ,425 |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 1706,500 | 2652,500 | -,441 | ,659 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 1547,500 | 2493,500 | - | ,194 |
| | | | 1,300 | |
| The electronic payment on the Web site is safe. | 1728,000 | 2674,000 | -,328 | ,743 |
| Purchasing through the Web site will not cause financial risk. | 1735,000 | 2681,000 | -,272 | ,785 |
| The Web site complies with personal data protection laws. | 1673,500 | 2619,500 | -,611 | ,541 |
| The Web site only collects user's personal data that are necessary for its activity. | 1666,000 | 2612,000 | -,644 | ,519 |
| The Web site does not provide my personal information to others without my consent. | 1563,000 | 2509,000 | - | ,209 |
| | | | 1,257 | |
| I feel safe when sending my personal information to the Web site. | 1771,500 | 5257,500 | -,070 | ,944 |
| The Web site shows concern for privacy of its users. | 1494,000 | 2440,000 | - | ,115 |
| | | | 1,574 | |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 1578,500 | 2524,500 | - | ,255 |
| | | | 1,139 | |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 1744,000 | 5230,000 | -,224 | ,823 |
| The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | 1658,500 | 2604,500 | -,681 | ,496 |
| The E-commerce site where I purchase has various products. | 1668,000 | 2614,000 | -,625 | ,532 |

| | | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|----------|-------|------|
| The use of the Internet is a good experience for me personally. | 1706,000 | 5192,000 | -,431 | ,666 |
| I have positive experiences using the Internet. | 1740,500 | 5226,500 | -,240 | ,811 |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 1647,500 | 2593,500 | -,741 | ,459 |
| I trust that a review and rate from a friend regarding an E-commerce site is honest. | 1542,500 | 2488,500 | - | ,192 |
| I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | 1526,000 | 2472,000 | - | ,162 |
| I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | 1537,000 | 2483,000 | - | ,188 |

a. Grouping Variable: Gender

Table.27 Mann-Whitney Test for all factors according to Gender.

| Test Statistics ^{a,b} | | | |
|---------------------------------------------------------------------------------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 3,174 | 5 | ,673 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 6,016 | 5 | ,305 |
| The E-commerce site I choose, has an interesting web design. | 3,663 | 5 | ,599 |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 4,586 | 5 | ,468 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 2,293 | 5 | ,807 |
| The electronic payment on the Web site is safe. | 3,202 | 5 | ,669 |
| Purchasing through the Web site will not cause financial risk. | 5,719 | 5 | ,334 |
| The Web site complies with personal data protection laws. | 3,650 | 5 | ,601 |
| The Web site only collects user's personal data that are necessary for its activity. | 3,551 | 5 | ,616 |
| The Web site does not provide my personal information to others without my consent. | 3,344 | 5 | ,647 |
| I feel safe when sending my personal information to the Web site. | 5,102 | 5 | ,404 |
| The Web site shows concern for privacy of its users. | 4,841 | 5 | ,436 |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 5,602 | 5 | ,347 |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 4,192 | 5 | ,522 |

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|------|
| The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | 3,105 | 5 | ,684 |
| The E-commerce site where I purchase has various products. | 3,708 | 5 | ,592 |
| The use of the Internet is a good experience for me personally. | 10,145 | 5 | ,071 |
| I have positive experiences using the Internet. | 8,956 | 5 | ,111 |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 3,119 | 5 | ,682 |
| I trust that a review and rate from a friend regarding an E-commerce site is honest. | ,696 | 5 | ,983 |
| I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | 1,446 | 5 | ,919 |
| I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | 2,227 | 5 | ,817 |

a. Kruskal Wallis Test

b. Grouping Variable: Age

Table.28 Kruskal-Wallis Test for all factors according to Age.

| Test Statistics ^{a,b} | | | |
|---------------------------------------------------------------------------------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 9,056 | 6 | ,170 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 8,391 | 6 | ,211 |
| The E-commerce site I choose, has an interesting web design. | 6,124 | 6 | ,409 |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 8,119 | 6 | ,230 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 4,528 | 6 | ,606 |
| The electronic payment on the Web site is safe. | 5,315 | 6 | ,504 |
| Purchasing through the Web site will not cause financial risk. | 8,937 | 6 | ,177 |
| The Web site complies with personal data protection laws. | 11,063 | 6 | ,086 |
| The Web site only collects user's personal data that are necessary for its activity. | 10,775 | 6 | ,096 |
| The Web site does not provide my personal information to others without my consent. | 11,529 | 6 | ,073 |
| I feel safe when sending my personal information to the Web site. | 12,925 | 6 | ,044 |
| The Web site shows concern for privacy of its users. | 9,619 | 6 | ,142 |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 8,917 | 6 | ,178 |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 8,432 | 6 | ,208 |

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|------|
| The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | 11,020 | 6 | ,088 |
| The E-commerce site where I purchase has various products. | 9,379 | 6 | ,153 |
| The use of the Internet is a good experience for me personally. | 12,872 | 6 | ,045 |
| I have positive experiences using the Internet. | 9,050 | 6 | ,171 |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 8,033 | 6 | ,236 |
| I trust that a review and rate from a friend regarding an E-commerce site is honest. | 7,216 | 6 | ,301 |
| I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | 7,643 | 6 | ,265 |
| I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | 9,809 | 6 | ,133 |

a. Kruskal Wallis Test

b. Grouping Variable: Educational background

Table.29 Kruskal-Wallis Test for all factors according to Educational Background.

| Test Statistics ^{a,b} | | | |
|---------------------------------------------------------------------------------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 7,219 | 7 | ,406 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 4,072 | 7 | ,771 |
| The E-commerce site I choose, has an interesting web design. | 12,770 | 7 | ,078 |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 11,094 | 7 | ,135 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 5,306 | 7 | ,623 |
| The electronic payment on the Web site is safe. | 6,595 | 7 | ,472 |
| Purchasing through the Web site will not cause financial risk. | 13,209 | 7 | ,067 |
| The Web site complies with personal data protection laws. | 5,395 | 7 | ,612 |
| The Web site only collects user's personal data that are necessary for its activity. | 7,810 | 7 | ,350 |
| The Web site does not provide my personal information to others without my consent. | 8,495 | 7 | ,291 |
| I feel safe when sending my personal information to the Web site. | 2,885 | 7 | ,895 |
| The Web site shows concern for privacy of its users. | 9,639 | 7 | ,210 |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 9,469 | 7 | ,221 |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 7,084 | 7 | ,420 |

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---|------|
| The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | 9,590 | 7 | ,213 |
| The E-commerce site where I purchase has various products. | 12,732 | 7 | ,079 |
| The use of the Internet is a good experience for me personally. | 14,045 | 7 | ,050 |
| I have positive experiences using the Internet. | 12,948 | 7 | ,073 |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 10,893 | 7 | ,143 |
| I trust that a review and rate from a friend regarding an E-commerce site is honest. | 12,389 | 7 | ,088 |
| I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | 11,048 | 7 | ,137 |
| I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | 14,508 | 7 | ,043 |

a. Kruskal Wallis Test

b. Grouping Variable: Occupation

Table.30 Kruskal-Wallis Test for all factors according to Occupation.

| Test Statistics ^{a,b} | | | |
|---------------------------------------------------------------------------------------------------------------|------------|----|-------------|
| | Chi-Square | df | Asymp. Sig. |
| The E-commerce site where I purchase a product, provides useful and reliable information for me. | 3,507 | 4 | ,477 |
| The E-commerce site where I purchase a product, provides sufficient information for me to make a transaction. | 1,624 | 4 | ,804 |
| The E-commerce site I choose, has an interesting web design. | 8,891 | 4 | ,064 |
| The Web site has mechanism to ensure the safe transmission of its users' information. | 7,111 | 4 | ,130 |
| The Web site has sufficient technical capacity to ensure that the data I send cannot be modified by hackers. | 5,156 | 4 | ,272 |
| The electronic payment on the Web site is safe. | 5,903 | 4 | ,206 |
| Purchasing through the Web site will not cause financial risk. | 1,349 | 4 | ,853 |
| The Web site complies with personal data protection laws. | 9,016 | 4 | ,061 |
| The Web site only collects user's personal data that are necessary for its activity. | 3,310 | 4 | ,507 |
| The Web site does not provide my personal information to others without my consent. | 3,273 | 4 | ,513 |
| I feel safe when sending my personal information to the Web site. | 3,206 | 4 | ,524 |
| The Web site shows concern for privacy of its users. | 3,120 | 4 | ,538 |
| The E-commerce site where I purchase a product is well-known and respectable for me and others. | 5,799 | 4 | ,215 |
| The E-commerce site where I purchase a product is reputable and trust-worthy. | 1,390 | 4 | ,846 |

| | | | |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------|---|------|
| The E-commerce site where I purchase a product belongs to a big company, that is capable of supplying a product in great number and is known to be a big player in the market. | 5,030 | 4 | ,284 |
| The E-commerce site where I purchase has various products. | 4,079 | 4 | ,395 |
| The use of the Internet is a good experience for me personally. | 4,337 | 4 | ,362 |
| I have positive experiences using the Internet. | 4,730 | 4 | ,316 |
| I trust that a recommendation from a friend about an E-commerce site constitutes an honest opinion in general. | 3,160 | 4 | ,531 |
| I trust that a review and rate from a friend regarding an E-commerce site is honest. | 3,630 | 4 | ,458 |
| I trust that a recommendation from a friend about an E-commerce site is reliable enough to help me decide about making an online transaction on this site. | 3,650 | 4 | ,455 |
| I trust that people/friends in online forums or communities are reliable enough to help me take a decision about making an online transaction on a particular E-commerce site. | 7,637 | 4 | ,106 |

a. Kruskal Wallis Test

b. Grouping Variable: Family Income

Table.31 Kruskal-Wallis Test for all factors according to Family Income.