# Factors motivating the Greek consumers to adopt E-commerce

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#### Abstract

The world has been changing ever since the introduction of information technology. The organizations make efforts to utilize the possibilities of information technology systems in order to improve their services and to attract more customers. There are some countries like Sweden, Denmark, Finland, Norway and Island where the 91% of the people has used the internet for trading in the previous six months. However, in Greece only the 10% of the people have used the internet for trade purposes. The exploration of the factors that render the Greek consumers circumspect in the use of electronic commerce are the main purpose of this study. Furthermore, attempts to explore the intermediate role of the personal characteristics of consumers. Using survey data from 524 Greek internet users, the results indicate that "market orientation", "site quality" and "trust" are significant positive predictors of "purchase intention" and moreover "risk" is negatively related to the "intention to purchase" on line.

Keywords: E- commerce acceptance, Greek customer's perception, trust, risk, site quality.

JEL Classification: 030

### 1. Introduction:

For many consumers e-commerce is a familiar mode to shopping and it growths 19% per year (Kim et al., 2008). From 2004 to 2008 there was a considerable rise in the number of individuals in the EU25 who had ordered goods or services over the internet. In fact it had risen from 22% to 34%. In 2008 32% of the people in the EU 27 had ordered online (Alba, 1997). However, there is great variation among EU member states in the use of e-commerce. In Sweden, Denmark, Finland, Norway and Island 91% of the people who had used the internet had traded over the internet in the previous six month. In 2008, 57% of the people in the U.K had ordered goods or services over the internet for private use while 66% of the people who used internet in France had made a purchase online. In Germany, Denmark and Netherlands the figure drops slightly to 50%. However, in Bulgaria and Romania which are the two newest Member States, the figure drops considerably to 3% and 4%. In other member states like Estonia, Italy, Greece and Portugal 10% of individuals purchased online for private use in 2008 (Eurostat, 2009).

According to estimates, the European e-commerce market was worth 106 billion euros in 2006 which can be compared to the size of the US e-commerce market. 70% of the European turnover is found in 3 main markets; United Kingdom, Germany and France (Bandura, 1994). Surveys of consumer positions to online purchasing is the EU disclose that men, mostly young and those who remained the longest in full time education make far greater use of the internet to buy goods or services. It is far less common for consumers in new Member States to shop throw the internet than it is for residence of the other countries (Eurobarometer, 2008).

E-commerce in Greece, according to a research that has been released by Focus Bari (2009), is in a mature phase. The online consumers are about 620 thousand and they are consumers with a systematic consumer presence on internet. The same research has pointed out that only in the last semester there were 6 purchases made worth 550 euro. More than 90 thousand visitors enter an E-shop daily. The e-shop is very valuable for the businesses because a great amount of orders come via internet (50%), by telephone (20%) and 30% from the "natural" shops of e-shop which are found all over Greece. The business uses structures of e-commerce in order to keep in its warehouse a lot of stock succeeding this way in keeping low market prices and services.

#### 2. Literature Review

Generally we can say that e- commerce is "doing business electronically" (Timmers, 1999). According to Applegate et al. (1996) there are three distinctive areas of Electronic commerce applications which are: (1) Business-to-customer (B2C), (2) Business-to-business (B2B) and (3) Intra-organisation. This study is focused on B2C area, where customers can be informed and buy products and services. Customers have the opportunity to express their priorities in respect to available products, their delivery, and the way the transactions between the customer and the company are to be set up. Although e-commerce is a tool that helps us in our daily life to

purchase goods and services without wasting time there are many factors that determine the degree of e-commerce acceptance. Numerous studies have tried to determine the factors that influence the intention to purchase via internet.

In the model proposed by Thompson et al. (2005), trust in the context of e-commerce is constituted by two categories. The first one is trustees where the consumers trusting beliefs affect their attitude to the vendors and their risk perception. And second Consumers attitude to the vendor and their perceived risk, in turn, affect their willingness to buy. The research model is constituted by factors such as reputation and size where reputation is defined as the extent to which buyers believe a seller is professionally competent or honest, benevolent and size where large size suggests that the vendor is able to assume the risk of product failure or transit losses and compensate buyers accordingly, multi-channel integration where consumers demand more and more flexible access to products and services, system assurance which is defined as the dependability and security of a vendor's online transaction system and enables transactions through the internet to be secure and successful. The above mentioned factors belong to the First category which is "Characteristic of Trustees". The second category which is "Characteristics of Trustors" is constituted by only one factor namely propensity to trust that is the general willingness to trust other people and a measure of an individual's tendency to trust or distrust. According to Thompson et al. (2005), all these factors have a positive affect in consumers trust. Trust is the intention to perform behaviour and is determined by the individuals attitude toward the behaviour, and a person's attitude is affected by his/her beliefs, consumers trust and risk perception where consumers may be dealing with remote vendors they have never met and products that cannot be touched and felt and last with risk perception. Attitude and willingness to buy where perceived risk could also be regarded as a belief about situations.

The research model of Gefen and Straub (2004) was based on purchase intention which is affected by e- trust. E- trust is constituted by factors such as integrity which deals with e-vendors honesty and keeping promises, benevolence which deals with e-vendors willingness to assist and support and considers the costumer, predictability which deals with knowing what to expect from the e-vendor and ability which deals with e-vendors knowledge, competence and provision of good service. According the authors social presence influences e-trust positively. Moreover, Gefen and Straub (2004) added two more factors which are trusting disposition and familiarity. Examine the impact of trusting disposition on trust is suggested by the literature. Familiarity is also an antecedent of trust because it enables people to place their trust beliefs about the future into a context which clarifies the specifics of what they expect of others: what, when, where and how (Mayer et al., 1995).

Corbitt et al. (2003), in their research model used seven factors. The first one is user's web experience is important because the more experience one acquires on web the more secure will feel when he/she will shop on line, market orientation where according to Carnevale and Wechsler (1992) found that open communication and the opportunity to participate are necessary conditions for e-market, technology trustworthiness is of vital importance to consumers trust because the more customers count on the online services, the more they view it as a trusted relationship, the greater the trusted premium that practice companies will command and the greater the corresponding erosion of trust will be, trust perceived risk, participation in e-commerce and perceived site quality is important for web sites to gain competitive advantages over other and attract more customers .

Crespo et al. (2008) used 7 variables in order to measure the purchase intention. The first one is attitude which is defined in a degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question. This factor is affected by the below factors: (1) perceived ease of use is the degree to which the user expects the target system to be free of effort, (2) perceived usefulness where user's subjective probability that using a specific system will increase his or her performance in a particular activity, (3) perceived compatibility is the degree to which an innovation is perceived as being consistent with existing values and beliefs, previously introduced ideas, and potential adopters needs, (4) subjective norm which has perceived social pressure to perform or not to perform the behaviour, perceived risk where subjective expectation of loss associated with particular behaviour or innovation, (5) new technologies innovativeness is the willingness of an individual to try out any new information technology and (6) perceived risk which is defined as subjective expectation of loss associated with particular behaviour or innovation. Furthermore, Crespo et al. (2008) proved that subjective norm, innovativeness, attitude and perceived risk have a positive effect on purchase intention.

Another model which was introduced by Ranganathan and Sanjeev (2007) that concerned online purchase intention was based on 4 factors. The first one is web site quality which is the basic factor for an interaction between consumers and technology to take place, the second is CCOS which explains the concerns of online shoppers. CCOS is influenced mainly from 3 sub factors which are: security, assurance of delivery and privacy of personal information (Suh & Han, 2003), the

third is computer self-efficiency which is the capability of an individual to execute the desired actions that may he/she wants and the last one is the past online shopping experience which is the determinant factor of their online shopping behaviour. On the other hand Shankar et al. (2002) suggested that trust is the cornerstone in online business and also influences positively customers in adopting the behaviour of trust furthermore Mcknight and Chervany (2002), estimated that willingness of purchase is based on trust. Shankar et al. (2002) divided trust in two parts which are online trust and offline trust. Offline trust fulfils the relationship between consumers and stakeholders whereas online trust includes corporation's electronic media and the relationship with the customers. The model that is proposed by Shankar et al. (2002) is constituted by 5 variables which are measuring purchase intention. The last model that we have examined is the model of Ajzen & Fishbein (1980). In their model they were trying to investigate the consumer's intention to purchase products via internet by using two different perspectives. The first one is a technology-oriented perspective and the second is a trust oriented perspective. Their model was based on purchase intention which was affected by 5 factors which are (1) trust in online store which declares the interaction that is needed to be done between the consumer's and technology in order to be able to purchase goods and services from internet, (2) attitude towards online purchasing and intention to purchase online which is based on prior online purchase that the consumers have made, (3) and (4) are perceived ease of use and perceived usefulness which both of them are approached from a technological perspective and are based basically on how familiar the consumers are with internet and how well this on-line store is constructed, (5) perceived risk which is the most important factor that can influence consumers negatively in their intention to purchase via internet.

### 3. Hypotheses Formulation

Trust is the most important factor for consumers' patronage behaviour. Successful e- commerce web sites are those which could gain consumers' trust and reduce consumers' risk perception according to marketing activities and technology improvements.

Market orientation is essentially a managerial philosophy, which takes the customer as a focal point for business activities and considers profit as a consequence of customer orientation (McNamara, 1972; Bell and Emory, 1971).

Information collection and usage started to be considered as governing determinants to the organizations' market orientation in the 1980s (Shapiro, 1988). Using this definition in the B2C e- commerce, market orientation is likely to increase the level of trust (Corbitt et al, 2003). Carnevale and Wechsler (1992) found out that necessary conditions for open communication are the opportunity to participate and the market orientation. Therefore, a positive relationship between market orientation and trust is proposed.

# H1: Perceived market orientation is positively related to the customer's trust.

Web site quality is important for web sites because that gives them the competitive advantage versus other web sites and attracts more customers (Barnes and Vidgen, 2000). Technology can be used as a hint for customers who are searching for support of their trust or distrust perception of e-commerce web sites (Corbitt et al., 2003). While a salesperson is generally absent to the settings of the e-commerce web site, the primary object of trust becomes the organization itself (Jarvenpaa et al., 2000). Hence, it is hypothesized that:

# H2: Perceived site quality is positively related to trust and

# H3: Perceived site quality is positively related to market orientation.

Bauer (1967) argues that once a risk has been taken in a purchase situation, there seems to be evidence that subsequent consumer behaviour is shaped by this risk perception. Similar to trust, perceived risk could also be estimated as a belief about situations. Consumer's perceived risk could have a negative relationship with their attitudes toward the purchasing behaviour. Recent research has established that risk perception and attitudes are closely related. For example, Ruyter et al. (2001) empirically verified that perceived risk has an influence on consumers' attitudes toward e-service. McKnight et al. (1998) stated that trusting intention is likely to be very fragile if the perceived risk is high. Consequently, purchase likelihood tends to be low. Therefore, we hypothesize that:

H4. Consumers' perceived risk a is negatively related to consumers' trust and

# H5. Perceived risk is negatively related to consumers' intention to buy from the vendor.

Existing empirical research has revealed that trust is significantly linked to attitude, and attitude positively signifies people's purchase intention (Chow and Holden, 1997; Machintosh and Lockshin, 1997). Gefen and Straub (2004) have proved that all the dimensions of trust positively affect the purchase intentions.Therefore, can be formulated the below Hypotheses.

H6: Consumers trust is positively related to the purchase intention.

### 4. Research Methodology

#### 4.1 Sample and Data Collection

In order to achieve the objectives of this study a survey was conducted during the months of June, July and August in 2009. A structured questionnaire was used as research instrument.

The target population of our study was the Greek internet users that did not carry out purchases from the internet up to the moment of research. The choice of internet users only, is imposed by the nature of the research, because without internet online purchases are impossible. The sampling method that was used is the random sampling method, and the collection of the data has been done in two different ways. In the first one the questionnaire was supplemented with personal interviews and in the second via internet. Especially, a site was created, the respondents were visiting this site and after the completion of the questionnaire they submitted the answers by just clicking in the submit button.

The total sample size consists of 524 usable questionnaires from which 142 (27%) from personal interviews and the rest 382 (73%) from the internet site.

The genders of the respondents were almost equal (50,4% males; 49,6% females). The majority of the individuals are very young (-24 years old) or young (25-40 years old), something which is natural as they are the main ages that are familiarized and have access to the internet. Almost half of the respondents (53,6%) are highly educated but mainly with low income (-800  $\in$  a month). Finally, 23,2 percent

work in the public sector, 35,5 percent in the private sector, 18,4 percent are self employed or businessmen while an important percentage (15,4%) are students. More details about the samples composition in table 1.

Characteristics		Percent
Gender		
	Male	50,4
	Female	49,6
Age		
	-24	30,6
	25-40	60,0
	41-55	7,3
	55+	2,1
Education		
	Primary school	10,9
	Secondary school	8,4
	College	10,7
	University/Tech.	53,6
	Institution	
	M.Sc/Ph.D	16,3
Income		
	-800 euro	45,4
	801-1200 euro	29,0
	1201-1400 euro	10,6
	over 1400 euro	15,1
Occupation		
	Public servant	23,2
	Private employee	35,5
	Student	15,4
	Freelancer/ Self	18,4
	Employed	
	Housewife/Unemployed	6 <b>,</b> 5
	Pensioner	1,0
Collection		
Methods		
	Via Internet	73,0%
	Personal Interviews	27,0%

Table 1: Demographic Characteristics

#### 4.2 Measurement

The questionnaire that was used for the needs of the research is based on similar questionnaires and the variables were measured using multi- items scales tested in previous studies. It consists of three parts. The first one refers to the demographic characteristics of the individuals such as age, gender, educational level, income and profession. The second and most important part refers to the factors that inspire consumers to purchase goods or services via internet. These factors are "Market Orientation", "Site Quality", "Consumer Trust" and "Perceived Risk". For the measurement of consumer trust 5 items were adapted from the study of Thomson and Jing (2007). For the measurement of market orientation 14 items were used that were adopted from the work of Corbitt et al. (2003) while for the measurement of site quality, 8 items from the same work were used. To measure Perceived risk, 4 items were adopted from Houghton et al. (2000) and Simon et al. (2000). Finally, in the third part it was attempted to determine the intention to purchase via internet. In order to measure the intention to purchase 3 items were adopted from the work of Crespo et al. (2008).

All items, in the second and third part, were statements as the respondents were asked to indicate on a five- point scale, ranging from 1=strongly disagree to 5=strongly agree, the degree to which they agreed with the statements.

#### 4.3 Research Instrument Validation

To ensure the appropriateness of our questionnaire it was tested for content, discriminant and convergent validity (Lee and Chung, 2009).

Content Validity is based on the extent to which a measurement reflects the specific intended domain of content (Carmines & Zeller, 1991) and is realized by a review of the literature on the subject of the study, and pilot test in a panel of experts (professors and professionals).

In order to check the instrument for discriminant and convergent validity we employed a confirmatory factor analysis (CFA) for all the items of our questionnaire. The method which was used for parameters estimation is the weighted least- square (W.L.S) as has been suggested by Joreskog and Sorbom (2001) when the observed variables are ordinal.

The estimation of goodness of fit of data in the proposed model requires a series of test for the overall model and measurement model. The first step in interpreting the results of CFA is to assess the overall model fit. The overall model fit can be assessed statistically by the  $\chi^2$  test, and heuristically using a number of goodness-of-fit indices (Sharma, 1996). Low values of  $\chi^2$ , in a significance level greater than 0.05 or 0.01 showing that the actual matrix and the predicted entry matrix are not statistically different. Since this measure is very sensitive to sample size, it is recommended to be used when the size of the sample is between 100 and 200 units. In larger samples the price  $\chi^2$   $\ \ rarely$  arise which is statistically insignificant. In these cases the measure Normed  $\chi^2$  is proposed which is defined as  $\chi^2/df$ , where df is the degree of freedom. Values greater than 1 and smaller than 3 or the more liberal limit of 5 seems good fit (Hair et al, 1995). Over thirty goodness-of-fit indices for evaluating model fit have been proposed in the literature. In this study are used the most important of these which will be mentioned later. The goodness-of- fit index (GFI) represents the overall degree of fit. Higher values indicate better fit, but not absolute levels for acceptability have been established (Hair et al, 1995). However, Joreskog & Sorbom (1993) suggest values greater than 0,90.

The adjusted goodness-of- fit index (AGFI) is essentially GFI that has been adjusted for the degree of freedom. The suggested cut-off value is 0,80 (Sharma, 1996).

The comparative fit index (CFI) represents comparisons between the estimated model and a null model. Values greater than 0,90 are considered acceptable (Joreskog & Sorbom, 1993).

The root mean square error of approximation (RMSEA) is another measure that attempts to correct the tendency of  $\chi^2$  rejecting any specified model with a sufficient large sample. Values ranking from 0,05 to 0,08 are deemed acceptable (Hair et al, 1995).

In the table 2 are presented the results from the test for overall model and as shown all of them are in acceptable level.

Measures	Obtained	Suggested
$\chi^2$	403,13	
df	125	
p-value	0,000	>0,05
$\chi^2/d.f$	3,2	$1 < \chi^2/d.f < 5$
RMSEA	0,065	<0,08
GFI	0,99	>0,9
AGFI	0,98	>0,8
CFI	0,98	>0,9

Table 2: Overall Model Fit Statistics

The next step is to evaluate the measurement models. For the evaluation of measurement models was realized test of the statistical significance of the loadings of all the items with the use of t-values. The construct reliability and variance extracted for each construct, was also calculated. According to Hair *et al.*, (1995) the values of these measures should exceed 0,7  $\kappa\alpha\iota$  0,5 (50%) respectively.

Table 3 reports the loadings of the items in the corresponding constructs and their t-values for both measurement models. All the loadings are statistically significant as their t-value is out of the interval [-1,96 +1,96].

Table J. Measulement Model for A								
Items	Loadings	Constructs						
	(t- values)							
E-commerce web sites are good places to surf not only for trading purposes, but for fun, information or something else.	0,90 (38,97)							
Most e-commerce web sites update their information quite often.	0,74 (30,68)							
E-commerce web sites are always quick to adopt advanced technologies to obtain the largest marketing opportunity.	0,89 (58,14)	(S.Q)						
E-commerce web sites are always quick to adopt advanced marketing techniques obtain the largest marketing opportunity.	0,86 (46,47)							
If I used the internet to purchase I would feel more worried than using other shopping channels.	0,92 (70,26)							
If I used the Internet to purchase I would feel insecure.	0,94 (69,02)	RISK (RISK)						
If I used the Internet to purchase I would feel a lot uncertainty.	0,96 (89,84)							
If I used the internet to purchase I may have a high probability of losing a great deal.	0,77 (30,50)							
The e-commerce web sites that I have visited are generally good at collecting customer's information	0,65 (20,37)	MARKET ORIENTATION						

Table 3: Measurement Model for X

Customer's opinion can influence the way e-commerce web sites serve the customers.	0,78 (26,11)	
E-commerce web sites value customer's opinions.	0,77 (31,17)	
I believe that most commercial web sites have the necessary skills and ability to carry out the on line transaction.	0,93 (56,85)	
I believe that most commercial web sites have the necessary technology knowledge to carry out the on-line transaction.	0,91 (54,63)	TRUST (TR.)
The chance of having a technical failure in an on-line transaction is quite small	0,64 (27,41)	
I believe most e-commerce web sites will perform to the outmost of the customer's benefit	0,72 (27,49)	
I intend to use the internet to purchase (in the next 6 months)	0,99 (145,52)	
I expect to use the Internet to purchase (in the next 6 months)	0,98 (172,76)	INTENTION TO PURCHASE
It is likely that I will use the Internet to purchase (in the next 6 months)	0,97 (111,04)	(INI.)

After the evaluation of the overall model and the assessment of the factor loadings of the items we examined discriminant and convergent validity.

Discriminant validity deals with the concept that "dissimilar constructs should be different" (Burns and Bush, 1995) and in our study was checked by examining whether the correlations between the variables are lower than the square root of the average variance extracted (Kim et al., 2008). The results presented in the table 4 indicate discriminant validity among the constructs.

Factors	1.	2.	3.	4.	5.
1. S.Q	0,848α				
2. RISK	0,257	0,900 <sup>°</sup>			
3. M.O	0,412*	0,169*	0,734 <sup>α</sup>		
4. TR.	0,351 <sup>*</sup>	-0,137 <sup>*</sup>	0,434*	0,818 <sup>α</sup>	
5. INT.	0,250*	-0,377 <sup>*</sup>	0,249*	0,434*	0,979 <sup>∝</sup>

Table 4: Discriminant Validity test

 $^{\rm a}$  Square root of average variance extracted, \*Significant at 0,01 level.

Convergent validity in our study was assessed by examining the composite reliability and the variance extracted by measures. Chin (1988) recommended a score of 0,7 or more for composite reliability, while Formell and Lacker (1981) suggested a score of 0,5 or more for variance extracted. As shown in table 5 composite reliability of our measures ranged from 0,774 to 0,986 and variance extracted from 0,54 to 0,96.

Factors	Composite	Variance		
	Reliability	Extracted		
S.Q	0,912	0,72		
RISK	0,944	0,81		
М.О	0,778	0,54		
TR.	0,889	0,67		
INT.	0,986	0,96		

#### Table 5: Composite Reliability and Variance Extracted

### 5. Data Analysis- Results

### 5.1 Basic Statistics- ANOVA Analysis

After the validation of the instrument the items were averaged to form the final score for any factor.

The data analysis, in the first phase, concentrates on the basic statistics, about the factors affecting the e- commerce acceptance and to ANOVA Analysis.

Factors	N. of			Std.		
	Items	Mean	MinMax.	Deviation	Median	c.v
S.Q	4	3,5702	1-5	0,79171	3,7500	22 <b>,</b> 17%
RISK	4	2,8391	1-5	0,94161	2,7500	33,16%
M.O	3	3,2650	1-5	0,64120	3,2500	19,63%
TR.	4	3,1963	1-5	0,74842	3,2500	23,41%
INT.	3	3,2736	1-5	1,25855	3,3333	38,44%

Table 6: Basic Statistics

The factors that affect the purchase intention have mean score near the average value of 3. Particularly, the Site Quality is the most evaluated factor with a value of 3,57 that means that the respondents find the quality of the sites that they are visiting satisfactory. Moreover, they also believe that the risk of their transaction is not so risky as the mean score is 2,84 below the average value. That means that apart from their familiarity the respondents have some reserves about online shopping. The mean score of 3,26 for the factor "Market Orientation" shows that the respondents are not very satisfied from the sites that they have visited. The same also occurs for the factor "Trust" which is very important for their decision to purchase. The respondents are cautious about the trust that they have in the ability of commercial sites to fulfil a successful an on-line transaction.

The "Intention to purchase" factor which is the dependent variable of this study, shows that the consumers are quite positive but not sure if they should purchase via internet.

For all the factors the value of coefficient of variation is larger than 15% and in some cases exceeds the 30%. This means that there are many different responses which can probably be explained by the different gender, age, educational level, income and occupation.

In order to explore the reasons of these differences an ANOVA analysis was performed for all the factors. From the results it arises that "educational level" and "gender" are the most important causes of differentiation for almost all the factors.

Personal		_				
Characteristics		Gender	Age	Education	Income	Occupation
Factors						
S.Q						
	F	14,659	0,213	5,277	2,746	3,587
	Sig.	0,000	0,888	0,000	0,042	0,003
RISK						
	F	29,299	0,715	3,220	1,982	1,820
	Sig.	0,000	0,544	0,013	0,116	0,107
M.O						
	F	5,160	3,169	4,302	1,921	3,384
	Sig.	0,024	0,024	0,002	0,125	0,005
TR.						
	F	1,128	5,945	4,755	7,753	1,897
	Sig.	0,289	0,001	0,001	0,000	0,093
INT.						
	F	15,187	1,348	2,714	3,742	2,092
	Sig.	0,000	0,258	0,029	0,011	0,065
Note: With bold chara	cters F-	values sign	ificant a	t the 0,05 lev	vel or lowe	r.

Table 7: ANOVA by Personal Characteristics

From the results (Table 7) it arises that the gender is a very important cause of differentiation as for all the factors, except "trust", as there is a statistical significant difference (Sig.<0,05). Specifically, women evaluate more positively than men the "site quality" while at the same time feel that the "risk" is higher. They also believe more than the men that the information that the business sites give are remarkable. Finally, men are the ones who more than women state that they will make transactions via internet in the future. The age of the respondents is a cause of differentiation for the factors "market orientation" and "trust". The categories 41-55 and +55 years old are more market oriented than the other categories. Finally, the category of 41-55 years old trusts more than the others the online transactions. The educational level of the respondents is the characteristic that creates differences in all the factors. Respondents of secondary school level have more positive view about site quality while primary level has less positive view. University graduates are the ones who believe more than the others that there is a risk in the transactions while the M.Sc/Ph.D and secondary school level believe that the information of the commercial sites is useful which is exactly the opposite to primary school level who believe that they are less useful. M.Sc/Ph.D level trusts more than the rest the sites while the primary school level seems to be very cautious. Finally, the ones who are keener on buying via internet are M.Sc/Ph.D while primary school seems to be less willing. The monthly income of the respondents constitute a characteristic that create significant differences in the factors "site quality", "trust" and "intention to purchase". Those who value more the site quality are people whose income is from 801 to 1400  $\in.$  On the other hand, the ones who have a high income believe that the quality is not as they expected. The ones whose income is from 1201-1400  $\in$  are the ones who trust more than the others the transactions made via internet while people with the low income (-800  $\in$ ) trust it less. Finally, the people with income from 1201-1400  $\in$  are the ones who are more keen on shopping via internet in

the near future. The occupation of the respondents is the characteristic that creates differences only in the factors "site quality" (sig.=0,003) and "market orientation" (0,005). Especially, Housewife/Unemployed and Student categories are more satisfied, than the others, from the site quality of commercial web-sites. Finally, pensioners and pprivate employees are more satisfied, than the others, from the commercial information of the sites.

#### 5.2 Correlation Analysis

The hypotheses which have been proposed in the third paragraph are six and the method which was used in order to accept or to reject them is the correlation analysis method. The table 8 presents the results from the correlation analysis.

		S.Q	RISK	M.O	TR.	INT.
S.Q	Pearson Cor.	1				
	Sig. (2-tailed)					
	N	520				
RISK	Pearson Cor.	0,257**	1			
	Sig. (2-tailed)	0,000				
	Ν	520	523			
м.о	Pearson Cor.	0,403**	0,173**	1		
	Sig. (2-tailed)	0,000	0,000			
	Ν	520	522			
TR.	Pearson Cor.	0,351**	-0,137**	0 <b>,</b> 372**	1	
	Sig. (2-tailed)	0,000	0,002	,000		
	N	520	523	522		
INT.	Pearson Cor.	0,250**	-0,377**	<b>,</b> 207 <sup>**</sup>	<b>,</b> 380 <sup>**</sup>	1
	Sig. (2-tailed)	0,000	0,000	,000	,000	
	N	517	519	519	519	519

Table 8: Correlation Analysis

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

The first hypothesis proposed a positive relationship between market orientation and consumers' trust. The correlation test gave us a significant correlation coefficient of 0,372 (Sig.=0,001) which shows that a higher level of market orientation is related to a higher level of trust. Thus the hypotheses one is verified (H1).

The second hypothesis proposed a positive relationship between site quality and trust. From the correlation test arises a significant correlation coefficient of 0,351 (Sig.=0,001). That shows that as better the quality site is as greater the trust towards the customers will be. Thus the hypothesis two is also verified (H2). The third hypothesis suggested a positive relationship between site quality and market orientation. The Person's correlation coefficient of 0,403 (Sig.=0,001) which is significant drive us to accept the hypotheses three (H3). Thus, we can say that a high level of market orientation is related to a high level of site quality.

Hypothesis four suggests a negative relation between risk and consumers' trust. The Person's correlation coefficient of -0,137 (Sig. =0,002) indicates a negative and significant relationship between risk and trust. Thus, the hypothesis four (H4)is supported and we can say that a higher level of risk is related to a lower level of trust.

Hypothesis five proposed also a negative relation between risk and consumers' intention to buy. The correlation coefficient of -0,377 (Sig.=0,001), which is significant, fully supports the hypothesis (H5). That is, as greater the risk is as lower the wish to purchase on line will be.

Finally, the hypothesis six proposed a positive relation between trust and intention to purchase. The coefficient of 0,380 (Sig.=0,001)indicates a positive and significant relationship between trust and intention to purchase. Thus, the hypothesis (H6) is supported and this means that higher level of trust is strongly related to the high level of purchase intention.

For the analysis of the collected data the Statistical Package for Social Sciences (S.P.S.S 17.0) and the Linear Structural Relations (LISREL 8.74) Package were used.

## Discussion

In the recent past the consumer's transactions and purchases as well as the mergents sales were clearly done by conventional means. In order for the consumers to buy the things they wanted or to have a service they had to go to the suppliers offices. Nowadays the way of conducting the transactions has radically changed. The growth and rapid spread of internet all over the world contributed in the creation of e-commerce which provides new and quick ways to serve a consumer. In bibliography many factors are referred to affect consumer acceptance and adoption of E-commerce. Among the most important factors are the risk, trust, site quality and market orientation.

The findings of this research support all the hypotheses proposed at the beginning of this study.

More specifically, "Site quality" has a positive and very strong relationship with both "market orientation" and "trust" factors. That is to say the quality of the site affects positively the consumers trust and the perceived market orientation, as Corbitt et al. (2003) showed in their research that took place in New Zealand.

"Risk" is the factor that is negatively related to "trust" and to "purchase intention". It is logical for every user to have great trust in purchases through the net when one feels that there is very little danger. Furthermore, the chances to conduct purchases are small when one feels that the danger is great. A research that Crespo and Del Bosque (2008) had done showed that the perceived risk does not have any influence in e-commerce adoption nor on the attitude toward the system, nor on the intention to shop. On the other hand Teo and Liu (2007) showed that trust reduces the perceived danger and consumers trust influences significantly in the reduction of the perceived danger.

The factor "Market orientation" is positively related with consumers trust perception that means that a higher level of market orientation is actually related to a higher level of trust, as it is also supported by the research of Corbitt et al. (2003).

Finally, the critical factor of "trust" has a positive relationship with consumers' intention to purchase via internet. If the e-commerce web sites inspire trust on the consumers then it is possible they would make purchases through the net. The results of the researches of Thomson and Liu (2007), Gefen and Straub (2004) also support the findings of our research.

E -commerce in Greece the last few years presents rapid development. However comparing it to the remainder European union

countries it is far behind. This means that there are prospects for further growth. From the results of the research it arises that the factors that influence positively or negatively the intention of the consumers for e - shopping are trust, risk site quality and market orientation. Consequently managers of e - shops that are already operating and those that will potentially operate in the near future should:

- Inspire the candidate customers for the quality of the products and the consequences of the transactions.
- Convince the customers that the danger of the transactions is minimized. Ensuring the secrecy of personal data but also ensuring the integrity of the transaction.

The results of our research arose from a very big sample from all the regions of Greece and can be considered absolutely reliable. However a future research could include more factors that potentially influence the intention of consumers for e -shopping.

It would be very ambitious and at the same time very useful for the research to be repeated in individuals that took part in the present research in order to find out if they advanced in  ${\rm e}$  - shopping as most stated.

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