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## Article

# Try not to be late!: The importance of delivery service in online shopping

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# TRY NOT TO BE LATE! – THE IMPORTANCE OF DELIVERY SERVICE IN ONLINE SHOPPING

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**Abstract.** *This study focuses on the role of delivery services in online purchases and their impact on customer satisfaction. Delivery service is one of the most important tasks of online purchase related to logistics, its performance directly influences the level of satisfaction. We aim to research what the online webshops and e-commerce businesses can or should do to have a positive impact on the customer satisfaction level. The research showed that delivery process in online purchases plays a significant role in customer satisfaction and in the decision making of whether or not one should purchase goods from a webshop. We contribute to the existing literature by widening it towards Eastern Europe and Turkey with our own conducted quantitative research. We released our questionnaire to an Eastern European and Turkish community as we were aiming to gather information on the emerging markets of Europe. We have utilized the following methods: frequency distribution, reliability testing, correlation analysis, linear regression analysis, normality test and one-way ANOVA to test our hypotheses. We found that delivery services and privacy policies play the most important part in ordering online in these communities, however, the income level of a person shows no significant relation towards customer satisfaction. We agree that any difficulties with the delivery process can have a negative effect on the purchase and the consumers, and that it influences how one can satisfy his or her needs.*

**Key words:** *online marketing, consumer behavior, delivery services*

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## Introduction

In this rapidly growing world, saving time plays an essential part in our everyday life, and this has an effect on our shopping habits as well. Several studies have been resolved around the topic of online shopping and its relation to delivery in order to determine the best way a person can satisfy his or her needs. Rudansky-Kloppers (2014) and Jiradilok

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et al. (2014) state that the factor of technology affects customer satisfaction through the delivery systems, while Karim (2013) compares the growth of online shopping and internet users with their main satisfaction levels regarding their shopping habits.

Our research is built around this burning topic to add value to the previous researches in this industry. We find it crucial to put the role of delivery in customer satisfaction in the internet based shopping under closer examination, since developing webshops and evaluating sites have never been easier thanks to social media. This paper contributes to the existing literature with a new perspective in Europe, regarding satisfaction levels.

## **1. Literature overview**

### ***1.1. Customer Satisfaction***

Satisfying customers is one of the strongest drives of any businesses in the world, ensuring its place in the center of any marketing concept which directs to deliver a high-quality service (Churchill, Surprenant, 1982). The term 'customer satisfaction' itself means the level of happiness of the customer about the quality of products and services (Chaffey, 2006). If they are more satisfied with the product or service, the emotional and behavioral loyalty is getting higher towards the company or brand. Moreover, Lee and Joshi (2007) mentioned a slightly different explanation, such as "the feeling of satisfaction as a result of the comparison between perceptions of product's performance and expectations." Ilieska (2013) defined customer satisfaction as "customer's fulfilment response". She also mentioned that the fulfilment may depend on the features of the product or service. The level of satisfaction depends on the level of positive or negative experience and joy that the product or service provides for the customers.

Singh (2006) pointed in his paper that customer satisfaction has a positive effect on the profitability of the company. The cost of recruiting new customers is at least 25 % more than having and keeping customers satisfied and loyal thanks to the high customer satisfaction rate. Besides, the satisfied customer would be more forgiving than other customers and make less complaints or defend the company in case of a bad situation. It is not usual for them to change the company unless something serious happens about the company, which may also break the trust between the customer and the company (Zairi, 2000). Moreover, as mentioned before, satisfied customers are likely to be loyal customers of the company. However, it is still not easy to make customers satisfied and loyal. For the online purchase, Reichheld and Schefter (2000) mentioned the casual factors of the loyalty. They were: quality customer support, on-time delivery, fair prices for shipping, insistent product presentation, and clear and faith-based privacy policies and data transfer. There is an interesting analysis of customer satisfaction data which was made by Coldwell (2001). Based on his analysis, satisfied customers spend 2.6 times more than somewhat satisfied customers and 17 times more than somehow dissatisfied customers.

## ***1.2. Word of Mouth***

The positive experience leads to better reputation and eventually, more profit for the company as the conversion to loyal customers (Zairi, 2000). Firstly, the satisfied customers make regular or more purchase from the same company, which means sustained or increasing revenue for the company. Secondly, the satisfied customers will talk about the product or service of the company that made them satisfied. They will talk about it with the people around them or even share their experiences with the people as a feedback by using the internet. So, they will spread positive information about the company (Zairi, 2000). It can also be said that they will somehow market the company, by expressing their positive experience(s) to the others. Finally, the company will gain more customers thanks to the positive word of mouth (WOM) (Singh, 2006). Moreover, the customers that the company gains with positive WOM, may usually have better understanding and motivation about service or product of the company. The reason is that people usually trust the information which they believe is based on the real experiences of a real person. So, when a person gets suggestions or positive feedback about a company from his or her friends, relatives, and colleagues, he or she will be motivated about the product or service of the company and will be willing to try it. The company may also benefit from positive WOM and improve the customer retention rate, and the higher retention rate will support company to be more profitable.

## ***1.3. Customer Satisfaction in Online Purchasing***

As customer satisfaction is a crucial element for all businesses, it also plays an important role for online purchasing and web shops. Hau and Ngo (2012) mentioned in their paper that relationship marketing orientation aims to establish successful and powerful relations between the customers and the business. There is no doubt that this relation should be satisfactory. Relationship marketing is a tool that the business can use to improve customer satisfaction because customer satisfaction is its main objective to reach. If the business wants to have a quality relation with its customers, it should satisfy the needs and wants of its customers. Muhmin (2011) mentioned that customer satisfaction is an essential element in the businesses that want to have a prediction of post-purchase acts and repeating purchase intentions of customers. So, it can be said that online customer satisfaction has a positive impact on repeating purchase intentions of the customers.

Customer satisfaction also provides a desirable environment by supplying repeating purchase intentions as a gain for businesses. According to Mpinganjira (2014), the definition of repeating purchase occurs when a customer is willing to buy a product or service from the same brand or online retailer in the future. To make this phase happen, the customer should be satisfied with the product or service of the online retailer. It is not easy to make the customers repeat purchase from the same retailer because of the high and strict competition in online purchasing.

The best way for retailers to attract customers and to be successful is to keep the customer satisfaction high, thus creating frequent buyers by putting them into a purchase loop. Brands and retail companies should differentiate themselves to guarantee customer retention by offering different services and products. Figure 1 below shows the necessary elements to achieve satisfaction and eventually, repeated purchase intentions.

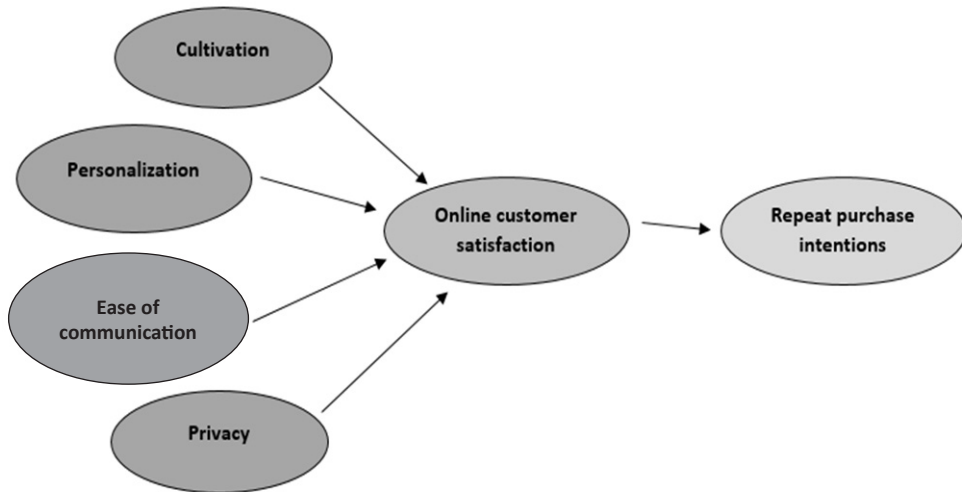


FIGURE 1: Online Repeat Purchase Intentions: A Relationship Marketing Perspective (Conceptual Model) M. Mpinganjira (2014, 120)

According to Mohd and Alam (2010), the value of the customer satisfaction can be defined as the ultimate result of meeting a consumer's expectation from the performance of products. Based on their view, the most satisfied customer have more intention to repeat the purchase from the same brand if they do not face the product or service performance below their expectations. Oliver's model (1980) showed that customer satisfaction intensively has an impact on customers' behaviors and their purchase and re-purchase intention. An unsatisfied customer is not a potential customer for the brand which provided service or product to that somehow unsatisfied customer. The business should find this unsatisfied element and fix it based on the customers' need and wants, especially based on the targeted customers. It is mostly easier to build a customer satisfaction for new and potential customer than try to make unsatisfied customers satisfied again.

Mohd and Alam (2010) mentioned five factors that are important in terms of online customer satisfaction: *website design, reliability, time saved, product variety, and delivery performance*. These factors come from the literature review of different approaches. The websites are the platforms that let the company meet and be in an interaction with their customers. Shergil and Chen (2005) mentioned that the design of the website is an important motivation to have an impact on online purchasing, in terms of customer

perceptions. The website welcomes the customers, and it is used as a mediator between the company and its customers by involving the product display, contact details and options to reach the company and its customer service, adding to cart, entering the membership and personal information and information of payment. Thus, the customers always deal with the website, and its design is important in terms of first impression, which also influences their satisfaction.

Reliability is also a significant factor. The customers are willing to be satisfied by getting the quality and quantity of the product that they ordered. They also want to be sure about the reliability of payment process and information that they are providing for the website. Thus, trust plays a crucial role to have satisfied customers (Ho & Wu, 1999).

The third factor that is important for online customer satisfaction is the product variety. Since there is a strong competition online even for a single product, this huge product variety helps companies differentiate themselves from others because the variety of the product or service is one of the reasons for being selected by customers.

The fourth factor is saving time and money, which is perceived as the biggest advantage of online purchasing. Devaraj, Fan and Kohli (2002) also pointed out that saving time and money are the key determinants of customer satisfaction. Moreover, its significance is expanding rapidly, based on the changing customer behaviors: they do not want to spend long time or do not have enough time for shopping, but they usually prefer any options which could help them to be more efficient. Furthermore, Ahn et al. (2004) mentioned that timeliness and reliability of the delivery plays an essential role in terms of customer satisfaction. When the customer has a good delivery experience and has his or her product in the promised time, his or her satisfaction level gets extremely high.

The last factor is delivery performance. All the aforementioned factors have an important role, however, without having a high-quality delivery performance the customer satisfaction could be lowered. Throughout the delivery the product must not be damaged, furthermore, delivery time should be short and should not exceed the duration that is promised by the company. Further influencing factors are the package, tracking services and customer relationship management. If it can be imagined that people order products from China to Europe or Japan to Brazil, it can be also imagined how important and difficult is to keep the delivery performance high to have satisfied customers (Lee & Joshi, 2007).

Moreover, the delivery of the goods is an important task in e-commerce (Van Hung et al., 2014). Any delayed delivery may cause a negative impact on customer satisfaction, which leads us to user reviews (and their influencing power) about the delivery factors.

We must mention another hot topic, namely privacy. According to Rashed (2013), it is one of the main issues of concern in online purchases: two thirds of the respondents think that privacy of the personal information may be lost during online payment processes. It could be a major deciding factor on different webshops. Companies should be

aware of the significance of this issue to decrease uncertainty among current and future customers (Anas et al., 2016). This research suggests that one of the factors on which the satisfaction and trust can be increased is the privacy and security of the website of the webshops. Yüksel and Selin (2015) also emphasised that the trust in online purchasing has a significant impact on customer satisfaction and experience. They suggest that the customers should feel comfortable while they are sharing their privacy information credit card details with the webshop.

## **2. Methodology**

### ***2.1. Purpose of the Research***

Our research aims to examine how delivery performance affects customer satisfaction. Mohd and Alam (2010) identified delivery performance as one of the most influencing factors, therefore our paper focuses on the following:

- To investigate the impact of delivery on the online customer satisfaction;
- To understand the elements of the online customer satisfaction;
- To understand the place and importance of delivery in the online customer satisfaction.

To find proper answers, we have developed the following hypotheses:

- *H1*: Online purchasing delivery processes (including time, cost, cargo packaging and brand) have an impact on the online customer satisfaction.
- *H2*: There is a significant relation between the privacy of a customer's private information and the online purchasing satisfaction.
- *H3*: There is a significant relation between income level and the online customer satisfaction.
- *H4*: There is a significant relation between age groups and the online customer satisfaction.
- *H5*: There is a significant relation between gender and the online customer satisfaction.

Trust as an influencing factor is also included as privacy in the scales based on Croome et al. (2010). They indicated that trust is a purchase driver part of the online buying decision process, and it involves vendor trust, privacy and safety.

### ***2.2. Structure of the questionnaire***

To test the aforementioned hypotheses, a research was conducted with an online questionnaire which was completed by 114 respondents. The structure is represented in Figure 2 below.

The questionnaire contained closed questions with both single and multiple answers (Reja et al., 2003), dichotomous questions and 7-point Likert scales, because they have high reliability, are easy to read and complete for respondents, and easy to construct



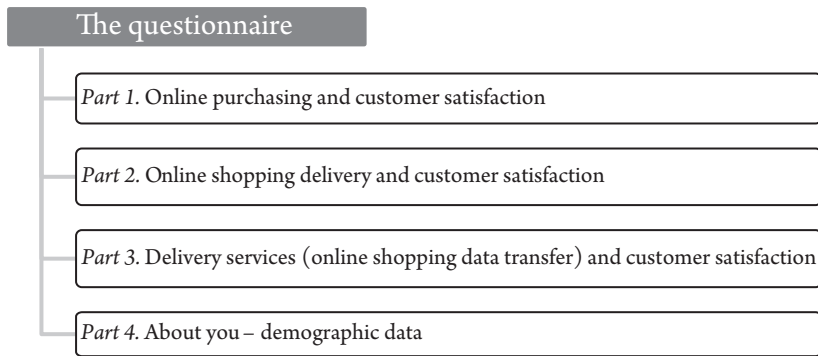


FIGURE 2: The Parts of the Questionnaire – Own Figure

and be applied (Malhotra, 2010). The aims of the parts are to understand what are the elements and processes that have an impact on online customer/respondent experiences; to understand the preferences and online purchasing habits of the customers; to combine and analyze the data from both online purchasing and customer satisfaction parts to understand what makes or can make the customers satisfied when shopping online. Furthermore, to understand the place of delivery service in online purchasing and its impact on customer satisfaction; to understand customers' preferences and requirements to be satisfied with the online purchasing delivery and to understand what are the important points for customers when they shop online.

### 2.3. Sampling Design

The sampling design process consists of 5 steps: defining the target population, determining the sampling frame, selecting a sampling technique(s), determining the sample size, and executing the sampling process (Malhotra, 2010). Our filter requirement was to have preliminary experience with online purchase. During the random sampling, no limitations were used (e.g., age group, region, gender, income or occupation).

The sample was collected by using social media platforms, such as Facebook, Twitter, and LinkedIn. The research uses convenience sampling: the questionnaire reached the respondents online using the snowball method (Malhotra, 2010). The positive sides of using the method are linked to possibility to locate hidden populations and answers that would have been more difficult to find in other ways, ease of conducting it and possibility to cooperate as a way of collecting new information (Malhotra, 2010; Atkinson, Flint, 2001). No matter how useful the snowball sampling was for us, we must highlight the limitations of the method as well. It is important to see that the first participants will have the biggest impact on the sample (Atkinson & Flint, 2001). Due to the method the results are non-random, as it depends on the ability of the social system to recruit new participants to answer the forms. Also, the control over the sampling method is limited (Thomson, 1997; Malhotra, 2010).



Knowing the limitations of the research method we compared them with the expected positive sides and decided that it was still the most proper way for us to conduct the research given the situation and the way in which we could collect answers.

#### 2.4. Data Analysis

To test our hypotheses, we have utilized frequency distribution, reliability testing, correlation analysis, linear regression analysis, normality test and one-way ANOVA.

To have an idea about the profile of the respondents, descriptive statistics were used to show demographic information of the respondents and to provide solid background for our analysis (Figure 3).

Criteria (number of participants)		
Gender	male:	32
	female:	82
Age	18–24 years old:	53
	25–34 years old:	52
	35–44 years old:	4
	45–54 years old:	2
	55 + years old:	3
Education	Bachelor's Degree:	59
	Master's Degree:	26
	Other type of college:	14
	Doctoral school:	2
	No school completed:	1
Employment	students who work:	29
	full-time students:	45
	managers:	36
	entrepreneurs:	3
	company owner:	1
Residency	Europe:	94
	Asia:	9
	North America:	8
	South America:	1
Income level	0–400 EUR:	55
	401–600 EUR:	16
	601–800 EUR:	10
	801–1000 EUR:	4
	1001–1200 EUR:	9
	1201–1500 EUR:	4
	1501 + EUR:	12
Marital status	single:	87
	living together:	14
	married:	9
	divorced:	4

FIGURE 3: The Number of Respondents in Terms of Age Groups – Own figure

The questionnaire was completed by 114 contributors, 28% of which are men. The participants were mostly millennials, mostly between 18 and 34 years old. As for the level of education among the participants, less than 1% of the contributors have lower education than an ongoing Bachelor's degree. Most of the participants (64%) are students from Europe. As for marital statuses, singles are over-represented.

With regard to the geographical distribution, the participants come from a diverse background. Although the clear majority of the answers are collected within Europe, there are representatives from other continents and countries. As Steers (Steers et al., 2010) refers to it, there is a distinction among developed and developing countries that can appear in the answers during a qualitative and quantitative research, so it is important to highlight this diversification regarding the study. We released our questionnaire to Turkish community as we were aiming to gather information on the emerging markets of Europe. Our first correspondents were of Turkish origin, from a group of Millennials and future intellectuals, and due to the snowball method (Malhotra, 2010) the questionnaire started spreading among this community. For our study it was highly interesting to see answers from Turkey as it is one of the rapidly changing emerging markets of Europe, trying to catch up with the developed countries. It was our goal to examine how the market corresponds to the delivery and online services in this environment, to see if we can find the desire in customers and webshops to reach a standard quality in the service industry.

#### 2.4.1. Reliability of Data for the Hypotheses

A reliability test refers to the extent to which a scale produces consistent results if repeated measurements are made to measure internal consistency of the hypotheses (Malhotra, 2010). Wong et al. (2012) pointed out that "reliability of a survey refers to an ability of the questionnaire to collect data that produce consistent results." The Cronbach's alpha (Cronbach, 1984) numbers are presented in Table 1.

TABLE 1: The Reliability Test Results of Scales of Hypotheses

	Cronbach's Alpha	N of items
<b>H1 – impact of delivery services on online customer satisfaction</b>		
Online purchasing satisfaction	0.940	22
Delivery services		
<b>H2 – privacy and online customer satisfaction</b>		
Online customer satisfaction	0.940	22
<b>H3 – income level and online customer Satisfaction</b>		
Online customer satisfaction	0.940	22
<b>H4 – age group and online customer satisfaction</b>		
Online customer satisfaction	0.940	22
<b>H5 – gender and online customer satisfaction</b>		
Privacy	0.793	6
Online customer satisfaction	0.940	22

The above results show that there is an internal consistency between the questions and the scales that were used.

## 2. Results

Our H1 hypothesis is ‘*online purchasing delivery processes (including time, cost, cargo packaging and brand) have an impact on the online customer satisfaction.*’ The hypothesis also has four sub-hypotheses which are about the impact of delivery time, delivery cost, cargo packaging, and cargo brand on online customer satisfaction. These four sub-hypotheses were assigned for H1.

The details of the correlation analysis of H1 can be seen in Table 2. There is a significant relation between delivery service in online purchasing and the online customer satisfaction, since the significance value is less than 0.05. The value of relation between delivery services and the online customer satisfaction is +0.557. Thus, delivery services can be considered as an important factor for webshops. The good level of delivery process or activity can result as a ratio of 0.557 higher online customer satisfaction and vice versa. In other words, this strong correlation could lead to a quick response by customers in case of experiencing any changes in delivery process. The result of the analysis was also in line with the results of this hypothesis, which is that delivery service has a very strong relation with customer satisfaction. This confirms the results of Rashed (2013), who stated that delivery service has an impact on customer satisfaction in online purchasing.

TABLE 2: The Correlation Analysis for The Variables of Hypothesis 1

H1		Delivery	Online Cust. Satisfaction
Delivery	Pearson Correlation	1	0.557**
	Sig. (2-tailed)		0.000
	N	114	114
Online Cust. Satisfaction	Pearson's Correlation	0.557**	1
	Sig. (2-tailed)	0.000	
	N	114	114

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

The linear regression analysis provided the significance level of 0.000 for H1 (Table 3), leading to a meaningful (significant) result; furthermore, there is a statistically significant and linear relation between the delivery services and online customer satisfaction. The bivariate regression model, based on the explanation of Malhotra (2010, p. 540) can be interpreted as follows: the impact of delivery services on online customer satisfaction has the coefficient value of 0.538. Thus, delivery services have impact on the online customer satisfaction, and the ratio of this impact is 0.538.

TABLE 3: Coefficients of Hypothesis 1 (Regression Analysis)

H1	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	2.148	0.426		5.048	0.000
Delivery	0.538	0.076	0.557	7.089	0.000

The R square value also plays a significant role in determining the impact of the independent variable on the independent variable (Table 4).

TABLE 4: The Model Summary Table (Regression Analysis)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
H1				
1	0.557	0.310	0.304	0.73851

The R square value is 0.310. The results can be interpreted as a 31% increase in the online customer satisfaction due to delivery services. Although the expected ratio was to be higher than 31%, it is still an appropriate indicator to show the impact of delivery services on the online customer satisfaction. Therefore, hypothesis 1 was accepted.

Hypothesis 2 states that *'there is a significant relation between the privacy of a customer's private information and the online customer satisfaction.'* According to the literature, the concern of the customers is rising. Presumably, privacy issues carry a significant impact on customer satisfaction. The literature review also shows that privacy is an important factor in online purchasing and it is also related to trust (Rashed, 2013). Two thirds of our respondents think that privacy could be compromised during an online payment process. As Anas et al. (2016) stated, privacy and security are the factors that webshops may consider to build customer satisfaction and trust. Yüksel and Selin (2015) suggest that the customers should feel comfortable while they are sharing their privacy information credit card details with the webshop. Hypothesis 2 (H2) covers the questions about privacy of personal information, trust and safety, in accordance with Croome et al. (2010, 20). The analysis of H2 follows the same steps that are applied for the analysis of H1. The correlation analysis is presented in Table 5.

TABLE 5: The Correlation Analysis for The Variables of Hypothesis 2

H2		Privacy	Customer Satisfaction
Privacy	Pearson's Correlation	1	0.835**
	Sig. (2-tailed)		0.000
	N	114	114
Online Customer Satisfaction	Pearson Correlation	0.835**	1
	Sig. (2-tailed)	0.000	
	N	114	114

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

Furthermore, because of the positive value of the Pearson correlation (0.835), there is a positive relation (parallel) between the two variables. The privacy of a customer's personal data plays a significant role by the value of 0.835, which is even higher than the H1 for web shops: any changes in privacy service quality of online purchases will cause a change in the online customer satisfaction by the ratio of 0.835. Thus, we confirm our H2 hypothesis by identifying the significance of the relation between the privacy and the online customer satisfaction and the importance of the impact of the privacy factor on the online customer satisfaction. The web shops should be aware of the significance of the privacy factor and ensure the quality of privacy and its security service to make the customers feel comfortable and safe during any purchase.

The linear regression analysis was also applied for H2, resulting in the significance level of 0.000. It shows that the confidence level of the hypothesis is very high and there is a statistically significant and linear relation between privacy and the online customer satisfaction.

Additionally, as it was done in the analysis of H1, the formula of bivariate regression model may be used in this analysis too. The impact of privacy of the customers' private information on the online customer satisfaction has the coefficient value of 0.746. We assume that in the case of any investment targeting improvement in privacy issues by a company, the change in online customer satisfaction or experience will be positive. The webshops can use the privacy factor as an advantage to increase customer satisfaction level or to consider it as one of the potential reasons for low or high level of the customer satisfaction to make improvements based on its impact.

TABLE 6: The Coefficient Table of H2 (Regression Analysis)

H2	Unstandardized Coefficients		Standardized Coefficients		
Model	B	Std. Error	Beta	t	Sig.
(Constant)	1.297	0.243		5.335	0.000
Privacy	0.746	0.047	0.835	16.032	0.000

The R square value of H2 is 0.696 (Table 7), which means that the increase (e.g.: efficiency, service quality or expertise) in the privacy processes can explain the increase of 69.6%, which will occur in the online customer satisfaction. Overall, in online purchasing, the privacy factor is a crucial point in terms of the online customer satisfaction, which strengthens the findings of our literature review (Anas et al., 2016, Rashed, 2013, Yüksel & Selin, 2015).

TABLE 7: The Model Summary Table (Regression Analysis)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
H2				
1	0.835	0.696	0.694	0.48969

Therefore, as significant relation was found between privacy and the online customer satisfaction, hypothesis 2 was accepted.

Hypothesis 3 stated that *'there is a significant relation between income level and the online customer satisfaction.'* According to Björn and Takao (2008), there is a strong and positive impact of income level as an economic growth on customer satisfaction. Consumers with high level of income may have better experiences since they can afford higher quality services. However, during an online purchase process, the situation is a bit different because of its intangibility. Dahiya (2010) stated that income does not have a significant impact on online purchases. However, it has an impact on the consumer behavior, which is not directly related to customer satisfaction.

The significance value of H3 was 0.000. Based on the method of Tabachnick and Fidell (2013), if the statistic values of Skewness and Kurtosis are between the range of -1.5 and +1.5, the sample is normally distributed (this range is -2 and +2 for George and Mallery, 2010). In the case of the normality test of our variables, the lowest and highest Skewness values were -1.241 and +1.010, and the lowest and highest Kurtosis values were -1.010 and +1.379.

The one-way ANOVA test provided the result of 0.046, which is very close to the level of homogeneity. Thus, the variance homogeneity of the hypothesis is not ensured and there is no significant (meaningful) difference between the groups in income level. Furthermore, it can be mentioned that there is a significant difference between the variance of the income levels. In this case, H3 was rejected (the p-value of H3 is 0.575).

The Games-Howell post-hoc test was applied because the variance homogeneity of the hypothesis was not ensured. Based on the results, the income level cannot provide a significant difference in terms of online purchasing.

Our hypothesis 4 was *'there is a significant relation between age groups and the online customer satisfaction'* and hypothesis 5 is *'there is a significant relation between the gender of the people and the online customer satisfaction.'* Both hypotheses were rejected by the analysis since their achieved significance values were more than 0.05, namely 0.475 (H4 hypothesis) and 0.073 (H5 hypothesis). It means that the correlation of these hypotheses is not statistically significant and there is not enough evidence to say that the correlations of them are significant. The Pearson values of these hypotheses (0.068 for H4 and -0.169 for H5) are very low, which shows that the relation between age groups and the online customer satisfaction is very low or there is almost none.

### 3. Discussion

Based on the results that have been obtained from the analyses of correlation and regression that are applied for all the hypotheses, we can conclude that there is a significant and positive (parallel) relation between delivery services in online purchase and the online customer satisfaction. As it was stated in the literature overview, we agree that a high quality online purchase delivery service can boost the level of satisfaction.

However, due to the conducted research we must add the comment: it is proven that any difficulties with the delivery process can have a negative effect on the purchase and the consumers. This addition is important among the empirical expectations, as it can influence the way a purchase is (or is not) made. It appears that the above mentioned and summarized difficulties can make the customers unsatisfied with the online purchase experience. Even with the best user experience (e.g., good design, proper customer services, high product variety), if the delivery takes too long or the product gets damaged during delivery, the overall customer satisfaction will decrease rapidly. From these conclusions we drew the statement that the web shops should ensure that the service quality of their delivery services is high in order to keep the customers satisfied with their services by reducing delivery time, allowing the customers cargo tracking, lowering or providing free delivery cost and securing a trustworthy service. The results also pointed out that the delivery service factor has an impact on user reviews of goods.

Privacy also plays an important role as suggested by the academic literature overview. Based on the research we suggest that the privacy policy about handling the customer data and payment information could be a decisive factor of using or avoiding a webshop. There is a significant relation between the privacy policy and online customer satisfaction that is backed by the data we processed. A well developed and ensured privacy policy could lead to trust and satisfaction. Referring to our statistics we can state that privacy has the value of 0.835, which means that privacy also plays a significant and positive role in online webshops. We assume that in an environment with an increasing number of data harms and piracy, this factor will have an increasing significance. With these insights we suggest that privacy should always be taken into consideration when discussing the impact of delivery services in the future.

In the study we also tested if there is a significant difference between the income level and customer satisfaction. Our research showed that there is no significant difference between these two variables: our respondents have different income and there is no significant relation between their satisfaction levels. With these conclusions we came to the statement that this variable may be related more to consumer behavior.

#### **4. Limitations**

This study has some limitations. Besides the limited random sample size (of 114 respondents), the respondents were elected solely if they had previous experience with online purchase. This may not reflect how customers realistically relate to webshops and their services. Additionally, this study focused solely on the effects of delivery services, however, there are other influencing factors as well. While this design encouraged realistic responses, we did not ask about their knowledge of available delivery service types and possibilities. Future work should further evaluate fintech solutions and their judgment as well. Also, this study did not consider existing network effects such as any influence from social media sites or word of mouth. Finally, this design required that



participants become not only one-time but familiar users of webshops, which may have affected their answers.

In our current research, we rejected our H4 and H5 hypotheses since correlation analysis resulted in t-statistics values more than 0.05. The linear regression analysis could not be run for them because there are no significant relations between the variables of these two hypotheses. In both cases, the independent variables are related to demographics. In the extension of our research, we would like to take a closer look on these factors to discover their influencing aspect.

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