

# E-COMMERCE FACTORS INFLUENCING CONSUMERS' ONLINE SHOPPING DECISION

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## Abstract

**Purpose** – The purpose of this paper is to look at the factors driving online shopping and to develop an understanding of the factors influencing the online shopping by the consumers. This is done by exploring the factors that encourage consumers to shop online through analysis of such advantages as security, fast delivery, comparable price, convenience, cheaper prices and a wider choice. At the same time, the research project reveals the factors that are discouraging for consumers and the benefits received by buyers making purchases online. Specifically, the research explores how online shopping can be affected by such factors as age, gender or occupation.

**Design/methodology/approach** – The factors that affect the consumer online shopping have been disclosed through quantitative research by analysing data collected via a web-based questionnaire survey. The sample consisted of 183 Lithuanian consumers who were purchasing online.

**Findings** – The empirical findings of this study indicate that the main factors influencing consumers to shop online are convenience, simplicity and better price. Analysis of socio-demographical characteristics such as gender has shown that men shop more often online because of the lower price. Respondents of the 25–35 year age group more often choose shopping online for such reasons as lack of time and a wide range of products. The most beneficial factor of shopping online was identified as a possibility to compare prices and buy at a lower price.

**Research limitations/implications** – This study was done regarding only general conditions and the findings may not necessarily be applicable to a particular e-business. Therefore, in the future it would be highly encouraged to examine consumers' attitudes towards specialized online shopping websites to look for differences by kind of products or services.

**Practical implications** – Attributes identified by this study could help e-business developers to form their marketing strategy, identify and remove the main obstacles to creating a highly convenient online shopping service to customers. Online stores can devote valuable corporate resources to better mapping of the online consumers' behaviour, future technologies and developments.

**Originality/Value** – This paper may be valuable for online retailers, as it will help them to attract consumers and enable to better form their e-marketing strategies allowing to understand the consumers' changing needs and lifestyles as well as to attract them with regard to their online shopping experience.

**Keywords (3-5):** Online shopping, Consumer behaviour, Internet, B2C e-commerce, Online shopping factors.

**Research type:** Research paper.

## Introduction

The research problem is the lack of research in the field of e-commerce and consumer decision to purchase online. Without knowing the factors encouraging online shopping it is difficult to develop e-commerce, as well as to identify what is needed to achieve and what criteria the e-commerce should be consistent with.

The main goal of the study is to explore the factors that encourage online shopping, analyzing such e-commercial advantages as security, fast delivery, comparable prices, convenience, cheaper prices, wide choice, etc. A special attention for distinguishing factors contributing to shopping online is given to such factors as age, gender or occupation.

The subject of investigation - factors encouraging online shopping.

*Objectives:*

1. To analyze the scientific literature that focuses on the scientific approach to online shopping and factors that encourage such shopping.
2. To perform the survey with people who shop online to distinguish the factors that encourage online shopping.
3. To make proposals and recommendations on using the main factors contributing to shopping online.

## Factors of shopping online

Before analysing the factors of shopping online it's important to clarify the scientific approach to shopping online. Verma, Jain (2015) understand online

shopping as individual's actions which are determined by the intention to shop online. Panda, Swar (2014) focus on aspects that influence the individual's buying behaviour. Malik, Gupta (2013) investigate the relationship between the decision/intention to shop online and the factors affecting such decision. They have pointed out that online shopping behaviour refers to the process of purchasing products or services through internet and this process consists of five steps: identification of a problem, information search, evaluation of product options, purchase decision, and post-purchase support. Pavlou, Fygenon (2006) equate online shopping to e-commerce and suggest the definition that e-commerce is the activity where consumers get information and purchase products using Internet technology. It can be stated that the scientific approach to shopping online is associated with a particular customer behavior and their decision/intention of buying online.

While analysing the most important factors of shopping online Verma, Jain (2015) conducted a research on defined population and sought to identify certain features of people making purchases online.. The specific term - "need for cognition" (NFC) - has been analysed, which reflects the tendency of individuals to be engaged in thinking and enjoy it. The NFC has been described as a need to structure the current situation as a meaningful one and to understand the experiential world. After a research there were distinguished six factors operating in NFC positive segment: preference for being an advanced user, a confident user of latest in information technology, using it as tool for knowledge exploration, the ability to assess behaviour of a programme, an efficient end user and knowledge of hardware.

Another important research of shopping online factors was conducted using a meta-analysis in order to integrate the findings of previous researches and to provide a more detailed framework of online shopping behaviour, based on the patterns of personality traits, perceived risk, and technology acceptance. The research showed that important factors of online shopping were an attitude to online shopping and a change of customers' attitudes toward making online purchases (Wu, Ching Ke, 2015).

Exploratory factor analysis identified four factors, namely anxiety, ease of use, usefulness and price, as the determinants of shopper buying behaviour online. Anxiety is the most important factor in online shopping. The next important factor is ease of use. Price, though an important factor, does not influence shoppers as the other variables (Panda, Swar 2014). The theory of planned behaviour identified that the combination of education and income may have some effect on the purchase intention. Gender, occupation, sector of employment are not very important factors of online shopping (Malik, Gupta, 2013).

Yeoh et al. (2015) investigate the impact of consumers' embedded cultural models on post-recovery satisfaction, loyalty and word-of-mouth. The results revealed significant relationships between relational and utilitarian cultural types and post recovery loyalty and word-of-mouth, so these could also be called as important factors of online shopping.

As an important factor of shopping online can be defined price and recommendations of other consumers. Kang Lo et al. (2013) analyse the phenomenon

in which the consumer expects the prices of products and services on the Internet to be lower than in traditional shops. Empirical results have shown that consumers expect the similar prices in all online shops but do not compare prices in online and traditional stores. It can be assumed that another important factor of shopping online is similar prices in online shops. Price as an important phenomenon of online shopping also has been analysed by Lo et al. (2014), whose findings show that consumers perceive online retailers’ overhead costs as lower than store-based retailers’ overhead costs. Sam, Sharma (2015) explores the factors affecting consumers’ decision to shop online, and how the decision can be affected by product type. The results showed that an important factor influencing the consumer’s decision to buy online is an availability of product information on websites. Ease of use is another encouraging factor to buy online. It was also found that products such as movies, music and video games are more acceptable items for online shopping. Benlian et al. (2012) analyse the differential effects of provider recommendations and consumer reviews in the process of shopping online. Results of an experimental study show that provider recommendations express significantly higher usefulness and perceived ease of use than reviews of other consumers in the perspective of users. But users of consumer reviews express higher trusting beliefs and perceived affective quality than users of provider recommendations.

Mohammed (2014) intended to explore the factors that affected the online shopping intention among young consumers. The tested results confirmed that the effect for perceived usefulness, perceived risk and trust influences an online shopping intention. Surprisingly, the results could not reveal any statistically significant effect for perceived ease of use and online experience, and it can be assumed that those factors are not very important in shopping online. The findings of another research reveal that young women prefer social e-shopping sites. However, although many research participants found the social e-shopping site more difficult to use, this was outweighed by their enjoyment of the site and its usefulness (Dennis et al., 2015). Wan et al. (2012) also explore how age and consumers’ web shopping experience influence the search, experience, and trust ratings in online shopping. The ANOVA results show that age and the web consumers’ shopping experience are significant factors.

The most important factors in shopping online can be seen in Table 1.

Table 1. **Important factors in shopping online**

<b>Authors, which defined important factors of shopping online</b>	<b>Important shopping online factors</b>
Verma, Jain (2015)	<b>Technological factors:</b> preference for being an advanced user, confident user of latest in information technology, using it as a tool for knowledge exploration, ability to assess behaviour of a program, an efficient end user and knowledge of hardware.

Wu, Ching Ke (2015), Yeoh et al. (2015), Panda, Swar (2014), Malik, Guptha (2013), Mohammed (2014), Benlian et al. (2012), Dennis et al. (2015), Wan et al. (2012)	<b>Consumer related factors:</b> attitude to shopping online formation and a change of customers' attitudes; cultural types, post recovery loyalty and word-of-mouth; consumer anxiety, ease of use; consumer education and income; usefulness, perceived risk, trust; provider recommendations and consumer reviews; social e-shopping; age and consumers' shopping experience.
Kang Lo et al. (2013), Lo et al. (2014)	<b>Factors of pricing</b> in online shopping.
Sam, Sharma (2015)	<b>Factors of product/service:</b> availability of product information on websites, product type.

## Research of shopping online

**Methodology.** The study was carried out on the basis of quantitative research methodology. There were interviewed 183 people who shopped online. The required sample size was calculated based on the site <http://www.surveysystem.com/sscalc.htm>. For calculation of the sample size the confidence interval of 95%, confidence width of 6% and population as all the people who have bought online in Lithuania were selected. The calculations showed that 183 people is a sufficient sample size for conducting a credible investigation.

**Research results.** The survey covered 44% of men and 56% of women.

In the theoretical part of the paper the lower price, ability to find a different product, lack of time, wider choice, as well as easier and more convenient shopping were distinguished as the most important factors for shopping online. These factors were also included in the survey questionnaire to distinguish which of them were the most important for people who shopped online. The most important results of the study appear in Table 2.

In most cases the shopping in online stores is selected for its convenience and simplicity (72%). It is influenced by convenient payment, the ability to obtain a required service or product without leaving one's home, a rational assessment of the price when you can compare the price of the same product or service in different stores, as well as prompt acquisition of a product-related information. An attractive price takes the second place (59%).

The analysis of the socio-demographic characteristics shows the statistically significant effect in women more often indicating that their online shopping is determined by a lower price of products/services. It is observed that 25-34 year old people often choose online stores because of lower prices and a greater variety of products, and the 18-34 year age group of respondents in statistically significant terms more frequently prefer online stores due to a greater variety of products. It may be assumed that online shopping by the persons belonging to the age group of 25-34 years is induced by their career advancement and building up of the marital partnership, that result in increased occupational activity.

Table 2. Important factors in shopping online according to age, gender and occupation

		Smaller price	I can find a different product	Lack of time	Greater variety of products	Easier and more convenient	Other
<b>Overall</b>	183	59.3	33.	42.9	39.	72.	4.4
<b>Gender</b>							
Man	102	51.	29.4	47.1	33.3	73.5	2.
Woman	80	70.	37.5	37.5	46.3	70.	7.5
<b>Age</b>							
18–24	22	54.5	40.9	36.4	54.5	68.2	4.5
25–34	86	59.3	36.	53.5	47.7	79.1	3.5
35 and more	74	60.8	27.	32.4	24.3	64.9	5.4
<b>You are</b>							
Entrepreneur	61	63.9	45.9	41.	52.5	70.5	6.6
Employee	100	57.	29.	46.	32.	74.	2.
Student	5	60.	0	20.	20.	60.	0
Unemployed	2	0	0	50.	0	50.	0
Other	14	64.3	21.4	35.7	42.9	71.4	14.3

All factors related to consumer characteristics have the greatest influence on online shopping. Table 2 shows that there are some differences between choices of men and women. Women are more affected by the price while men are influenced by faster and more convenient shopping. In order to assess whether this is true, the Pearson correlation coefficient (the Pearson Chi-square criteria of compatibility) has been calculated.

According to Pearson Chi-square criteria of compatibility it was estimated, if there is an association between the selected statement (shopping online customers are more affected by the price) and whether the consumer is a man or a woman.

The Pearson Chi-Square Test helps to evaluate the compatibility of the statistical relationship between the investigated indications. This criterion is based on the calculation of the probability of frequency (Bilevičienė, Jonušauskas, 2011).

The calculation of relationship brings two hypotheses:

- $H_0$  (null hypothesis) is an assumption that there is no relationship between indications;
- $H_1$  (alternative hypothesis) is a hypothesis, which is the opposite of the null hypothesis;
- $\alpha$  – significance level.

Statistical relationship is evaluated between the selected statement (shopping online customers are more affected by the price) and whether the consumer is a man or a woman.

Selected  $\alpha = 0.05$ .

$H_0$  – selected assumption that shopping online customers are more affected by the price does not depend on whether the consumer is a man or a woman.

$H_1$  – selected assumption that shopping online customers are more affected by the price depends on whether the consumer is a man or a woman.

Table 3. Pearson Chi-Square Test

Chi-Square Test					
	Value	df	p-level	Exact Sig. (2-sided)	Exact Sig. (1-sided)
Pearson Chi-Square	.053 <sup>a</sup>	1	<b>.635</b>		
Continuity Correction <sup>b</sup>	.000	1	1.000		
Likelihood Ratio	.053	1	.635		
Fisher's Exact Test				1.000	.550
Linear-by-Linear Association	.051	1	.699		

From the Table 3 we can see that the observational significance level (p-level) = 0.635.  $0.635 > 0.05$ . Therefore we accept the hypothesis H0 - selected assumption that shopping online customers are more affected by the price does not depend on whether the consumer is a man or a woman.

From the Pearson Chi-Square Test results we can interpret that the statement “women are more affected by the price, while men are affected by faster and more convenient shopping factors”, which was seen from the questionnaire results, does not have any statistical proves.

The survey has revealed that usually people choose online shopping for its convenience and simplicity. The analysis of the socio-demographic characteristics shows that women more frequently choose online shopping for lower prices of products while the men more value the faster and more convenient shopping.

## Conclusions

- The scientific approach to online shopping is related to the characteristics of consumers, their decision to buy and affecting factors for shopping online. Based on the analysis of scientific literature, the affecting factors for online shopping are divided into the following 4 groups:
  - Technological factors: good knowledge of information technologies and their use for obtaining the knowledge, capabilities for the use of applications and systems.
  - Consumer-related factors: an attitude to online shopping, cultural types, loyalty, ease of use, consumer education and income, usability, risk and trust, provider recommendations and customer reviews, age and previous online shopping experience.
  - Price factor while shopping online.
  - Product/service factors: the availability of product information on the website, product type.
- The study of consumers who shop online was focused on the most important factors of shopping online, which in the theoretical part of the paper were identified as the lower price, ability to find a different product, lack of time, wider choice, as well as easier and more convenient shopping. The study has showed that in most

cases shopping in e-stores is preferred for its convenience and simplicity. The analysis of the socio-demographic characteristics of the respondents has showed that women prefer to shop online because of lower prices of products offered, and men more value faster and more convenient shopping. The most important factors of online shopping were analyzed based on age groups and it was found that 25–34 year old people more often chose online shops because of lower prices and greater variety of products.

3. Recommendations on how to use the important factors in online shopping could be aimed at developers of websites and owners of e-stores. They should change their marketing strategies giving priority to customer orientation and they should be particularly focused on the ease of use of online shopping services. E-stores should devote resources to better understand consumer behavior, technologies of the future and their development.

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