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## **FACTORS DETERMINING IMPULSIVE BUYING BEHAVIOR IN SOCIAL COMMERCE**

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### **ABSTRACT**

The development of social media and electronic commerce led to new phenomena called social commerce. Companies deploying social commerce expects consumers quickly react to their propositions and usually consumer have use social media based websites for entertainment, but not for shopping. In this context such buying behavior tends to be impulsive buying behavior which is not widely analyzed in literature. In this paper we provide overview of impulsive buying behavior online and proposed model of factors affecting impulsive buying behavior in social commerce websites. The proposed model is validated in Lithuania market.

*Keywords:* Impulsive buying, social commerce, consumer behavior, factors effecting behavior.

### **INTRODUCTION**

Recently, extremely rapid development of information technology and social networks has affected consumer behavior in the virtual environment – they became more impulsive and social. Due to this, business is interested in finding out the factors influencing impulsive buying behavior in social commerce sites. Theoretical and empirical researches showed that it is a new theme which wasn't explored deeply before. For the following reason, the aim of the paper is theoretically validate and empirically define the factors influencing impulsive buying behavior in social commerce sites. Theoretical model will be empirically tested in the case of Lithuania.

### **LITERATURE REVIEW**

One of the first scholars that analyzed impulse purchasing behavior in the online environment was LaRose (2001). In his study, author analyzed the factors having an impact on consumer's self-regulation browsing on a certain website. During the research, it was noticed that the rating of products, lotteries, announcements about the expiry of an auction or offer stimulate impulse buying in the online environment. In order to explore the factors influencing impulse buying behavior online, technology acceptance model (TAM) was used in this study.

Some researchers analyzed how the payment process influences impulse purchase behavior but the received results were not presentable. The researchers mentioned above suggested analyzing the phenomenon of impulse purchasing behavior in the online environment in detail, while other researchers stated that it is essential to understand how the characteristics of online environment should be changed and, consequently, the sales of unplanned goods would increase.

Gatautis and Vaičiukynaitė [9] also focus on the importance of online environment (online shops, websites) characteristics maintaining that, due to the spread of the phenomenon of e-commerce in all over the world, the analysis of online shops environment and the analysis of its characteristics have become important not only for business but also for science, as the latter elements of websites influence the behavior of consumers.

Manganari et al. [18] analyzed 43 scientific articles related to elements of an online shop and suggested the model consisting of 4 elements, correspondingly defining the environment of an online shop: website layout/design, website atmosphere/environment, website interactivity, and website social communication. Having analyzed scientific literature, Gatautis and Vaičiukynaitė [9] supplemented Manganari's et al. [18] model with a website navigation element that belongs to website layout/design. Website atmosphere/environment was supplemented by the components of information content and structure, design aesthetics, and website branding. The element of website interactivity was not supplemented, although the studies that have been carried out show that emotional response of consumers depends on website interactivity.

Shirmohammadi, Ebragimi, Ghane [25] also support the idea that due to the development of information technologies, consumers obtained the possibility to shop 24/7. Flexible schedule, opportunity to compare goods, special offers and etc. stimulated impulse purchasing behavior in the online environment as well. Koski [13] agrees that impulse buying more often observed in the online environment rather than traditional [26]. The statements and statistic facts that show the number of online purchases mentioned above stimulate the analysis of impulsive consumers' behavior in the online environment and its influencing the factors. However, before analyzing these factors, first it is necessary to pay attention to the phenomenon of impulsive consumer's behavior which, according to Madhavaram [17], is analogous in the traditional as well as online environment, except the factors influencing it.

In the scientific literature, the factors possibly having impact on impulse purchasing behavior in the online environment are analyzed as well, namely positive mood of individuals or emotional response [21], product characteristics [12], factors of online retail purchasing (e.g. website virtual environment) [12], and hedonistic motives [24] [19]. Based on the ideas of the latter scholars, it can be stated that the biggest influence for impulse purchasing behavior in the online environment is made by

the product itself and its related characteristics, constituents of online environment, experienced emotions, and hedonistic motives.

Chang, Eckman, Yan [2] state that, analyzing impulse purchasing behavior in the online environment, only some authors analyses factors affecting the interaction of stimulus (external factors) and impact on a consumer. The latter scholars analyzed hedonistic motives as moderator between external environmental stimuli and impact experienced by a consumer. The received results proved the results of previous studies that the motivation of individuals has only partial impact on the interaction between retail environment characteristics and consumer's positive emotions.

It is stated that hedonistic motivation especially interacts with social environment factors influencing positive emotions experienced by consumers. The findings presented by Chang, Eckman, Yan [2] correspond to the idea presented in the scientific literature [1] that consumers with hedonistic motivation enjoy interacting with others when they do the shopping: hedonistic motives closely interact with social factors.

It is also noticed that, exploring impulsive consumers' behavior on the social commerce websites, studies have been carried out only regarding social networks. However, in the scientific literature the opinion on whether consumers' behavior in social networks is rational or impulsive diverges. Many researchers support the opinion that consumers' behavior in the social networks is not impulsive because, before making the decision, a consumer looks for information and pays attention to recommendations. In contrast, Voight [29] believes that consumers are impulsive in the social networks and hedonistic as they enjoy shopping with others. The study that had been carried out by Ozen, Engizek [20] demonstrated that a hedonistic motive has negative impact on impulse buying on social commerce websites. The analysis of study results and scientific literature implies that the phenomenon of impulse purchasing behavior on the social commerce websites has not been explored yet.

Based on the analysis of scientific literature, the conceptual model has been shaped, allowing determining the factors that influence impulse purchasing behavior on the social commerce websites. Madhavaram [17], Chang et al. [2], Romera, Borja, Descals [24], Floh, Madlberger [7], Liu, Li, Hu [15], Gao, Bai [8] and others analyses impulse purchasing behaviour in the online environment according to the S-O-R model (Stimulus-Organism-Response).

When analyzing impulse purchasing behavior in the online environment, Parboteeah et al. (2009), Dawson, Kim (2009), Kacen et al. (2012), Matic, Vojvodic (2013) state that the biggest influence on impulsive behavior is made by the product itself and its related characteristics, constituents of virtual environment where the purchasing and hedonistic motives of an individual occur [21], [5], [12], [19]. Since the phenomenon of impulse purchasing on the social commerce websites is not explored enough in the scientific literature and the studies are not carried out regarding this topic, the assumption can be made that the factors mentioned above influence the analysis of impulse behavior and social commerce websites, as this occurs in the online environment anyway.

Taking into consideration that social commerce websites is the integration of electronic commerce websites (i.e. online shops) and social media, website layout, design, website atmosphere, website interactivity, and website social communication refer to the social characteristics of online shop environment [18], [9]. Characteristics of social commerce websites can be supplemented by the characteristics of social networks structure: strength of connections, network density, network centralization, and similarity [23].

It is also noted in the scientific literature that analyzing impulse purchasing behavior in the online environment, the authors highlight hedonistic motives of an individual, which consequently are analyzed as moderator between external environment stimuli and a consumer in a conceptual model based on Chang, Eckman, Yan [2]. A consumer experiences a positive or negative effect, i.e. positive or negative emotions [28]. According to Verhagen, Dolen, [28], positive emotions such as excitement/ardor and enthusiasm may stimulate the consumers' needs to purchase the product for an instantaneous reward. Whereas negative emotions such as sensibility irritation or other misfortunes may foster impulse buying, as they help a consumer feel better at that time. After the effect evoked by external stimuli, a consumer moves to impulse buying on the social commerce websites.

Considering these factors we proposed conceptual research model which is presented in Figure 1.

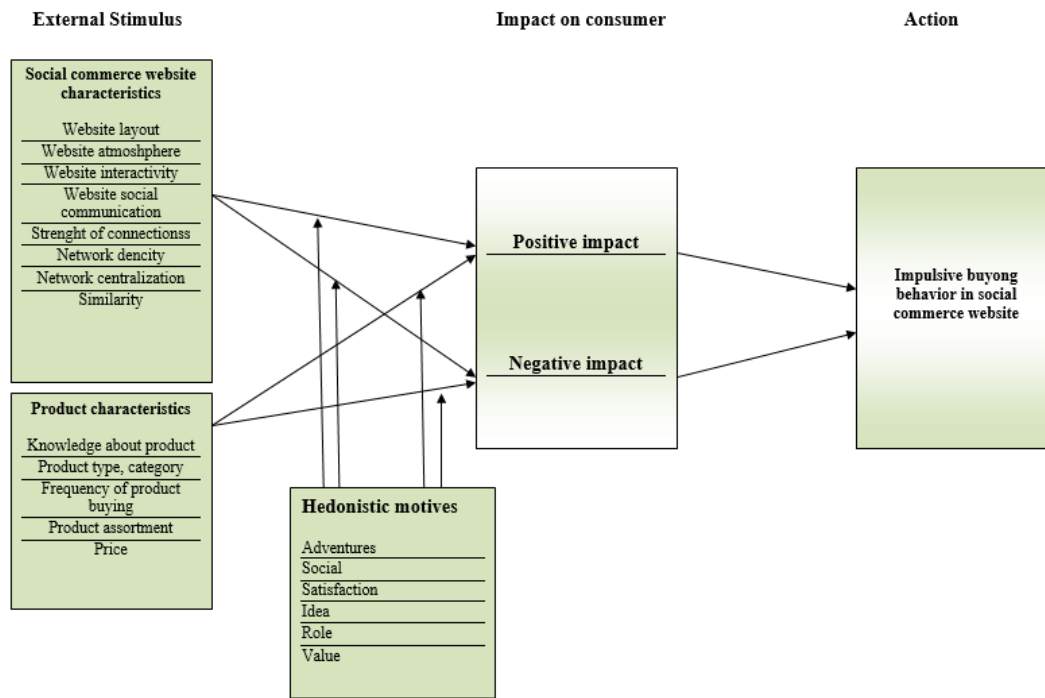


Figure 1. Proposed conceptual model of factors affecting impulsive buying behavior in social commerce website

### EMPIRICAL RESEARCH METHODOLOGICAL ASPECTS

*The problem of the empirical study.* Having analyzed scientific literature, it has been noticed that scholars individually analyses consumers' behavior in the online environment, the factors that affect it, impulse consumers' behavior in the online environment and consumers' behavior on the social commerce websites (integration of e-commerce and social networks). However, the relationships of the factors influencing impulse purchasing behavior and impulse purchase behavior on the social commerce websites have not been analyzed. Considering this fact, a conceptual model based on theoretical analysis has been created, leading to empirical inspection.

Taking into account the relationship of the factors influencing impulse purchasing behavior on the social commerce websites in the conceptual model and theoretical analysis of scientific literature, the following hypothesis have been formulated:

H1a – the atmosphere of the website influences consumer's positive impact on the social commerce websites in the case of impulse buying.

H1b – the layout of the website influences consumer's negative impact on the social commerce websites in the case of impulse buying.

H2a – the price of goods influences consumer's positive impact on the social commerce websites in the case of impulse buying.

H2b – the rate of buying influences consumer's negative impact on the social commerce websites in the case of impulse buying.

H3a – consumer's positive impact on the social commerce websites in the case of impulse buying evoked by website social interaction is conditioned by individuals' hedonistic motives.

H3b – consumer's negative impact on the social commerce websites in the case of impulse buying evoked by website atmosphere is conditioned by individuals' hedonistic motives.

H3c – consumer's positive impact on the social commerce websites in the case of impulse buying evoked by the price of goods is conditioned by individuals' hedonistic motives.

H3d – consumer's negative impact on the social commerce websites in the case of impulse buying evoked by purchasing rate of goods is conditioned by individuals' hedonistic motives.

H4a – positive impact on the consumer influences impulse buying on the social commerce websites.

H4b – negative impact on the consumer influences impulse purchasing behavior on the social commerce websites.

Carrying out the research on the factors influencing impulse purchasing behavior on the social commerce websites, the model of non-random selection – convenience selection has been chosen. Sample size and its selection, is an important factor when undertaking researches. Two factors determine sample size: population size and sample error. Regarding the aim of the research, people who buy impulsively on the social commerce websites are important for this research. Since such statistics has

not been provided, the sample of the research is people who use online purchasing services. Based on the data of Statistics Lithuania of 2014, in 2013 the number of residents that use e-commerce increased up to 25.5 % (i.e. 757.835 residents). Based on Pukėnas (2009), given that sample error is  $\pm 10$  %, it is necessary to survey 96 respondents. Although there have been 158 respondents questioned, 102 of which have bought impulsively on the e-commerce websites, the research is treated as pilot, disassociating from all results and assessment.

In order to investigate individual external factors influencing impulse purchasing behavior on the social commerce websites in the Lithuanian case, a questionnaire has been composed. In the introductory part of the questionnaire, the information on the aim of the research, purpose and anonymity has been provided. Moreover, there is an example of how to mark the answers. All questions for the respondents are closed-ended.

The research has been conducted during the period of 14-30 April, in 2014, and published on the website [www.apklausa.lt](http://www.apklausa.lt). Taking into account the topic under analysis and the chosen method of selection, the questionnaire has been sent to the respondents who are the users of the social network Facebook.

Stage 5. The presentation and discussion of the results. The data obtained during the research have been processed using SPSS 22 data pack. The processing of the data has been done using SPSS 22 programmer.

### **RESULTS OF THE RESEARCH**

Before investigating the data, first, the validity analysis of the questionnaire using Cronbach's Alpha coefficient has been carried out. This criterion shows the integrity of the scale and internal reliability. In this case, general reliability (validity) of the questionnaire is evaluated as very high as it has reached 0.901.

In order to determine which statistic methods are necessary and advisable in the case of analyzed data, the Kolmogorov-Smirnov test has been done. Based on received results, it can be stated that abnormal distribution is typical for many variables, as  $p < 0.05$ . Only the distribution of two variables, i.e. social communication and adventure motives is normal, as  $p > 0.05$ . Regarding received results, nonparametric statistic methods are still applied to the analysis of the gathered data (Pukėnas, 2009). In addition to this, to determine relationship between variables, Spearman's correlation coefficient, measured according to variables range scale, is used.

Respondents' sociodemographic characteristics. Generalizing the characteristics of the respondents in the survey, one may state that more than a half of the respondents, i.e. 64.6 % have bought impulsively on the social commerce websites at least once. The latter sample of the respondents is used for further analyses: correlation and regressive data analysis. It is also important to mention that women was the biggest number of all respondents (78.5 %), while among the respondents, who bought impulsively on the social commerce websites at least once, women composed 81.4 %. According to the age, impulsive buyers distributed evenly (39.2 %) among the age of 18-25 and 26-37. Analyzing the respondents according their income who bought impulsively, it is noted that most respondents receive 1001-2000 LTL per month (40.2 %).

Evaluating received averages of factors, it may be seen which factors have been evaluated most positively by the respondent, taking into account their impulsive behavior on the social commerce websites. As respondents maintain, the highest evaluation goes to product price (6.5 point out of 7), product type (6.27), variety of goods (6.06), value motive (5.91), and layout of social commerce website (5.74). Generalizing the averages of factors, the respondents evaluate the factors related to product characteristics most favorably. In order to find out whether the results of evaluated averages coincide with the factors influencing impulse purchase behavior on the social commerce websites, it is necessary to carry out correlation and regression analysis.

Generalizing the relationship between social commerce factors and negative impact on the consumer, the results are statistically insignificant, as in all cases (except website interactivity ( $p < 0.01$ )),  $p$  is more than 0.05 or 0.01. Low correlation is typical for all relationships, i.e. weak relationship intensity. In contrast to the factors of social commerce websites and positive impact on the consumer, in this case, negative correlation occurs (except analyzing the variable called "relationship strength" (0.60)). The results of negative correlation can be interpreted as if one variable decreases, when the other increases. In the analyzed case, one of the examples is that with the increase of network density, the negative impact on the consumer decreases.

In the analyzed case, the relationship between the factors of the product and positive impact on the consumer are statistically significant. The strongest relationship between the characteristics of goods and positive impact on the consumer is the price of goods (0.385), the frequency of buying (0.341), and variety of goods (0.324). Analyzing relationship of individual goods with consumer's negative impact, all received results (except the information about the product, where  $p = 0.027$ ) are statistically insignificant, as  $p > 0.05$ . In a similar way, when analyzing the relationship of social commerce factors with negative impact, moderate and low negative correlation of relationship between variable has been noticed.

Correlation analysis has been also done with the variables of individual's hedonistic motives. Taking into consideration the aim

of the research, it is to prove that individual's hedonistic motives influence the interaction of external stimuli and impact on consumers. Consequently, it is necessary to find out if the correlation relationship among all variables exists.

In most cases, relationships among variables are statistically significant, except the cases of connections on the website and adventure (0.209) and network density ( $p=0.639$ ). The strongest statistically significant relationship has been observed between the variables of idea motives and website connections (0.622) with moderate correlation.

Analyzing the correlation relationship of the variables between the impact on the consumer (negative and positive) and impulse buying, the results have shown that there is strong relationship between the positive impact and impulse buying, where average correlation reaches (0.490) and the data is statistically significant ( $p=0.000$ ). Insignificant negative relationship is noticed between negative impact and impulse buying, i.e. with the increase of negative impact, impulse buying on the social commerce websites decreases. However, the obtained results are not statistically significant as  $p>0.05$  (0.934).

Having determined statistically significant relationships between the variables (external factors, moderating factors, response for the impact on the consumer and impulse purchasing behavior) of the analyzed model in the presence of correlation, it is advisable to find out the nature of relationships. Taking into account the obtained data and aims and hypothesis of the research, two linear regression methods have been used: simple linear regression, in order to find out the impact of every factor on independent factor and multiple (many factors) linear regression, which allows analyzing the impact of several independent variables on the dependent variable. The latter is used to evaluate the influence of moderator towards interaction of external stimuli and impact on the consumer.

The relevant and reliable models identified during linear regression may be properly interpreted:

- Website layout explains 26 % of dispersion for the positive impact on the consumer
- Website environment explains 21.6 % of dispersion for the positive impact on the consumer
- Website interactivity explains 24.9 % of dispersion for the positive impact on the consumer
- Network centralization explains 30.3 % of dispersion for the positive impact on the consumer
- Positive impact on the consumer explains 20.9 % of dispersion for impulse purchasing behavior.

Having carried out the correlation analysis, it has been noticed that the negative impact on the consumer does not correlate with other variables. Therefore, the further analysis does not cover this variable. The results have also shown that there are no statistically significant relationships between the product factors and individual's hedonistic motives. However, statistically significant relationships between the factors of the product and positive impact on the consumer have been observed. Due to this reason, the product factors are not excluded and they occur in the regression analysis when analyzing the influence of product factors on positive consumer's impact.

During regression analysis, it has been determined that the factors of goods do not influence the positive impact on the consumer. 4 elements of social commerce environment make influence on positive consumers' impact leading to impulse purchasing behavior on the social commerce websites.

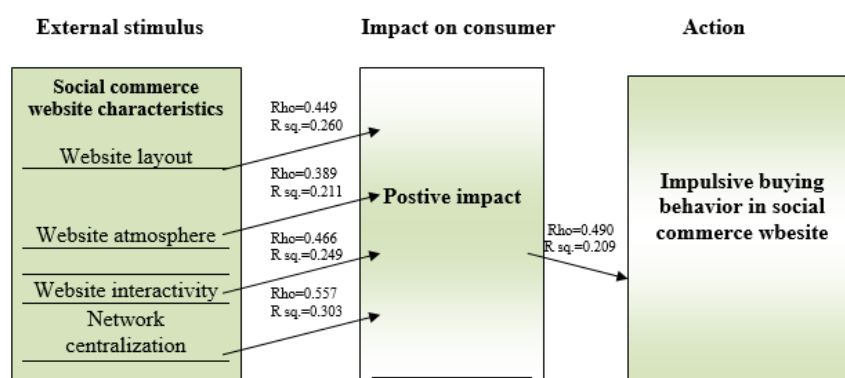


Figure 2. Results of factors influencing inulsive buying behavior in social commerce websites conceptual model validation in Lithuania market

Summarizing the results of empirical research, the conclusion should be drawn that impulse purchasing behavior on the social commerce websites is influenced by the following factors: network centralization (the most influential factor), website interactivity, website layout, website atmosphere/ environment, and the positive impact on the consumer of the latter factors with low or moderate correlation. Taking into consideration the last statement, 2 hypotheses presented at the beginning of the research and related to the influence of the website atmosphere on the positive consumer's impact and its influence on impulse purchasing behavior on the social commerce websites have been proved. With reference to the results, the final thesis formulates a conceptual theoretical model which can be applied to the Lithuanian case. However, not all variables may be based on the empirical research. Consequently, the model with variables (factors) influencing impulse purchasing behavior on

the social commerce websites in the Lithuanian case has been created.

### CONCLUSIONS

The study on the factors influencing consumers' behavior in the online environment has shown that these factors are divided into controlling and non-controlling. The most frequent factors in the models such as online marketing, sociocultural, and environmental factors have been determined. Whereas analyzing impulsive consumers' behavior in the online environment, the most influential factors, namely the product itself and its related characteristics, constituents of online environment, and hedonistic motives have been distinguished. The S-O-R model is often used to analyze impulse purchasing behavior.

It should be pointed out that social media influence consumers' behavior in all stages of consumer behavior and the influence is analyzed with reference to the consumers' decision making models, as well as the S-O-R model. The analysis of literature implies that the opinions of the scholars on the consumers' impulsiveness on the social commerce websites differ: some state that consumers on the social commerce websites are impulsive; the others argue that they are rational.

Having carried out the theoretical analysis of the factors influencing impulse purchasing behavior on the social commerce websites, the conceptual model based on the S-O-R model has been created. Stimulus or external factors are considered to be the characteristics of social commerce website environment and the factors of goods influencing positive and negative impact on the consumer. Finally, impulsive purchasing behavior on the social commerce websites occurs. Hedonistic motives of the individual are treated as a moderator between external factors and the consumer.

Based on the empirical research results, the conclusion has been drawn that, in the Lithuanian case, the factors influencing impulsive consumers' behavior on the social commerce websites are the following: website layout/design, website atmosphere/environment, website interactivity and network centralization as the most influential factor of all. These factors influence the positive impact on the consumer, leading to impulse purchasing behavior on the social commerce websites. The influence of other factors on the impulse purchasing behavior on the social commerce websites that belong to the conceptual model has not been determined in the Lithuanian case. The influence of the moderator (individual's hedonistic motives) has not been identified as well.

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