

AN ANALYSIS OF THE FACTORS AFFECTING ONLINE PURCHASING BEHAVIOR OF CROATIAN CONSUMERS

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ABSTRACT

This research investigates the impact of perceived benefits, perceived risks, hedonistic motivations, perceptions of trust and security, and web design on customer behavior in online shopping. Based on previous research, the conceptual framework of this research was developed, and hypotheses were formed. To test the hypotheses, the method of modeling structural equations using SPSS AMOS 26 was used. The research was conducted through a questionnaire, and 240 answers were collected from respondents in the Republic of Croatia. The research results show that hedonistic motivations have a significant positive impact on consumer behavior in online shopping while the web design does not. It was also found that perceived risks and perceptions of online shopping's trust and security do not have a significant negative impact on consumer behavior in online shopping. A statistically significant positive effect of perceived benefit on online shopping behavior was also not found. In addition to new scientific knowledge, the research results can be useful to marketing experts in shaping marketing and sales strategies in the online environment.

KEYWORDS: Internet, online buying customer behavior, perceived benefits, perceived risks, hedonistic motivations, trust and security, web design

1. INTRODUCTION

The development of the Internet has greatly influenced, but also changed the way all companies do business. Among other things, the Internet has enabled consumers to communicate more easily and successfully with companies in the market. (Adnan, 2014)

Sailo & Singh (2013) emphasize the great importance of online shopping in today's world. Namely, life is becoming more and more hectic, and people have less and less free time, including shopping. Today, the Internet is a vital distribution channel for many types of products

and services. Bashir et al. (2015) argue that the Internet is becoming an increasingly important means of making a purchase, no matter what is being bought. Chandra & Sinha (2013) describe that the significant development of online shopping has come about thanks to technological developments and how a web store can be an excellent business opportunity. Millennials stand out in particular as a generation that has embraced and participated in online shopping. (Salim et al., 2019) Javadi et al. (2012) state that consumers use the Internet for many reasons, such as searching for the characteristics of different products or services, selecting them, ordering, and paying for an order. Babić et al. (2011) state that companies that sell products or services through online shopping have lower costs, and their business speeds up. Nielsen (2010), as an advantage of online shopping, emphasizes the possibility of insight into other consumers' reviews, making it easier for the consumer to choose a product or service. Also, Chen (2009), among some of the benefits of online shopping includes the availability of information about products or services that the company offers on the store's website, saving time because there is no going to the store and the ability to buy at any time the consumer wants. Khalil (2014) argues that most people who shop online find this method much cheaper and more effective than physically going to the store.

According to Chen (2009), internet shopping, in addition to the mentioned advantages, has certain disadvantages. They are reflected in the inability to inspect the product before the purchase in terms of engaging touch, smell, and other senses. Besides, particular consumers do not trust this way of buying and consider that there is a high risk. Studying consumer behavior is very important, and for this reason, experts are trying to identify and understand what factors influence consumer attitudes and behavior when shopping online. Sailo & Singh (2013) explain that if marketing professionals understand the way certain factors influence consumer behavior when shopping online, it will be easier to devise marketing strategies to attract and persuade them to buy. Chen and Shergill (2005) state that consumers' online behavior can differ significantly from their behavior in the physical environment in a store.

In the Republic of Croatia, in the last few years, there has been a massive increase in households that have access to the Internet, so that in 2018, 82% of households had access to the Internet. In addition to the rise in the number of households with internet access, the number of people who buy online has also increased in Croatia in the last few years. According to data, in 2019, 45% of consumers bought online. (Central Bureau of Statistics, 2019),(Eurostat, 2019)

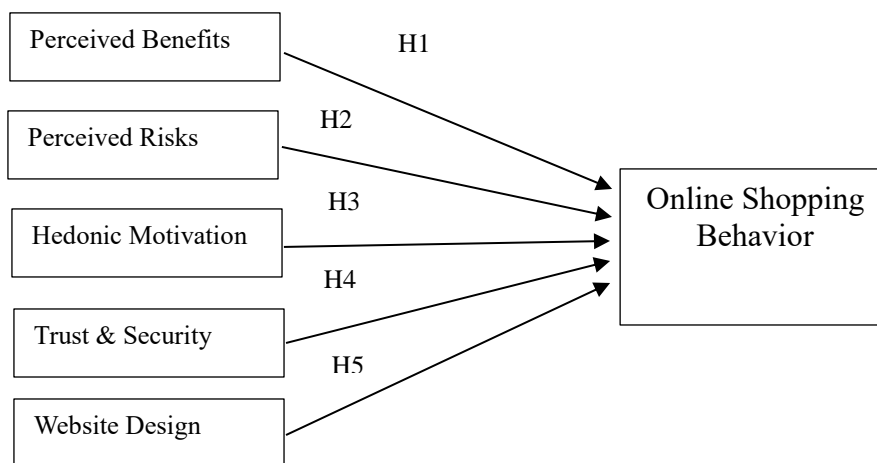
This research aims to investigate the influence of certain factors on the behavior of Croatian consumers in online shopping. Factors that were the subject of the research were: perceived benefits of online shopping perceived risks of online shopping, hedonistic motivations for online shopping, perceptions of trust and security of online shopping, and website design. After introducing the research topic in the first part of the paper, an overview of previous research follows, and then the research methodology is described. The central part of the report presents the data analysis and the results of the analysis. In contrast, the last part of the paper contains a concluding discussion, limitations, and recommendations for further research.

2. LITERATURE OVERVIEW AND HYPOTHESES DEVELOPMENT

This paper investigates the impact of perceived benefits of online shopping, perceived risks, hedonistic motivations, trust and security, and website design on consumer behavior when shopping online. There are various factors influencing consumer behavior in online shopping and, as such, are the subject of multiple studies. For example, Athapaththu & Kulathunga (2018)

investigated the impact of factors on online shopping intent from a technological perspective. These factors are perceived usefulness, website content, ease of use, and trust. Furthermore, Aksoy & Basaran (2013), in their study of the impact of factors on online shopping included: perceived benefits of online shopping, ease of use, and subjective norms and trust. In the implementation of this research, a model was constructed based on the scientific work of Adnan (2014), where the effects of perceived benefits, perceived risks, and hedonistic motivation on online shopping behavior are investigated, and the scientific work of Shahzad (2015) which introduces variables: trust and security and website design. Based on previous research, the conceptual framework of this research has been made. (Figure 1)

Figure 1. Conceptual model



Source: The authors

2.1. PERCEIVED BENEFITS

Adnan, (2014) cites the savings of consumers' time and effort and ease of use as the benefits that consumers achieve by buying online. In the research, he pointed out the positive impact of perceived benefits on consumer behavior in online shopping. Delafrooz et al. (2010) list other benefits that the consumer gets from online shopping, such as cheaper products and services, a larger selection of stores, products and services, entertainment, etc. On the other hand, Aldukali & ALrawimi (2015) point out that consumers cite time savings as the main reason for buying online. Soopramanien & Robertson (2007) find that some of the more significant consumer motivations for online shopping are more superb choice of sellers and unlimited store opening hours.

Furthermore, Iqbal et al. (2012) conclude that the perceived benefits that the consumer realizes by purchasing online are positively related to the consumer's intention to make a purchase online. The research results also indicated a significant impact of online shopping's perceived benefits on consumer behavior by Akroush & Al-Debei (2015). Based on previous research, hypothesis H1 was formed.

H1: The perceived benefits of online shopping have a positive impact on consumer behavior in online shopping.

2.2. PERCEIVED RISKS

In addition to the benefits that online shopping provides, consumers also face certain risks. Masoud, (2013) states that the risk present in online shopping has a massive impact on consumer behavior. Consumers feel that there is a higher risk when shopping online than when shopping in a store. Forsythe & Shi (2003) define perceived risk as to the subjective expected loss of consumers in online purchases. The study addressed the impact of several types of perceived risks on consumer behavior in online shopping, studied the impact of financial risk, product performance risk, psychological risk, and time risk. The results of the research showed that perceived risks have a significant negative impact on consumer behavior. According to Tanadi et al. (2015), perceived risk constitutes one of the key factors influencing online consumer behavior. Likewise, the impact of perceived risks in online shopping in the Pakistani market was also investigated by Abrar et al. (2017). they concluded that perceived risks have a negative impact on the behavior of Pakistani consumers in online shopping. Javadi et al. (2012) state that the risks that most commonly occur in the online purchase are financial risk, time risk, the risk that the product will not be delivered, and the risk that the purchased product will not be the same as shown in the online store.

The results of their research indicate that financial risk and the risk that the product will not be delivered have a negative impact on consumer behavior when shopping online, while time risk and risk that the product will not match the description on the online store are not significant for influencing consumer behavior. Bhatti et al. (2020) investigated privacy risk, product performance risk, and financial risk on consumer buying behavior online and found that privacy risk and product performance risk negatively impact consumer behavior, while financial risk has no impact. Adnan, (2014) mentions that consumers perceive risks before making an online purchase. The research investigates the impact of financial risk, the risk of obtaining a defective product, plus the risk of non-delivery of the product. Adnan, (2014) mentions that consumers perceive risks before making an online purchase. The research investigates the impact of financial risk, the risk of obtaining a defective product and the risk of non-delivery of the product. The analysis of these three types of risks showed a negative impact on consumers' online shopping behavior. The model of this research examines the impact of perceived risks such as product non-delivery risk, defective product delivery risk, and financial risk. Based on previous research, hypothesis H2 was formed.

H2: Perceived risks of online shopping have a negative impact on consumer behavior in online shopping.

2.3. HEDONIC MOTIVATIONS

According to López-Martínez et al., (2016), motivation is a factor that drives human activities and behaviors toward a specific goal. The basis of their research is hedonistic motivations for making online purchases. Thus, they linked hedonistic motivations to the emotional segments that make the buying process a pleasant and positive experience for consumers. Kim & Eastin (2011) argue that hedonistic motivation for online shopping is the basis for understanding consumer buying behavior. They state that the consumer's hedonistic motivation for shopping can be enjoyment, fun, surprise, and the like. The same is stated by Sung (2014), citing some other hedonistic reasons for online shopping, such as social status, curiosity, adventure, and more. Thus, consumer hedonists enjoy not only the purchased product but the entire buying process. Kaul (2007) defines hedonism as the “sense of pleasure” that a consumer associates

with a purchase. Adnan (2014), in his research, analyzes hedonistic motivation and finds that it does not influence consumer behavior. Delafrooz et al. (2010) note that hedonistic consumers do not search web stores and shop online just to seek information and purchase a particular product or service, but to entertain and excite them. Childers et al. (2001) also conducted research on utilitarian and hedonistic motivations that influence consumer behavior in online shopping. They found that consumer enjoyment in shopping is a crucial factor influencing their behavior. That hedonistic motivation is an important factor influencing online shopping behavior is also confirmed by Topaloğlu (2012) in his paper. Based on previous research, hypothesis H3 was formed.

H3: Hedonistic motivations have a positive impact on consumer behavior in online shopping.

2.4. TRUST & SECURITY

Meskaran et al. (2013) note that consumers have a perception that buying online is riskier than buying in stores. As Pilík & Juříčková (2016) point out, trust is a key factor for the success of an e-commerce business, and their research indicates a significant impact of trust and security on consumer behavior in online shopping. Goi & Sarawak (2010) cite security as the main reason why consumers do not buy online. Many consumers worry about whether their personal information and credit cards are secure when making an online purchase, or whether a third party will gain access to their personal information. Consumers will be more willing to buy a product or service online if they know that the company's online store is secure and will not deceive them. Distrust arises due to fear of losing money, misuse of data, and security during the transaction. Ozun & Poturak (2014) argue that security and trust are linked, and since the consumer does not personally see the product that companies buy, they must reduce the uncertainty that occurs with it. Research has found that trust and security have a positive impact on consumer behavior in online shopping. Several papers confirm the positive link between security and trust. (Yuliharsi et al., 2011), (Alsaad et al., 2020), (Adnan, 2014), (Katawetawaraks & Wang, 2011). Hypothesis H4 was formed in accordance with previous research.

H4: The perception of trust and security in online shopping has a negative impact on consumer behavior in online shopping.

2.5. WEBSITE DESIGN

Chiu & Yang (2016) explain that website interface design can substantially impact consumers in online shopping. They claim that consumers will sooner visit a website with a more interesting and beautiful design and aesthetics and decide to buy a product or service sooner. Sevim & Eroglu Hall (2014) also state that a website's design can attract attention and influence the consumer and his trust. Shahzad (2015), in his research, finds that website design has a very significant impact on online consumer buying behavior. In a study on consumer attitudes and behavior in online shopping, Li & Zhang (2002) said that website design could motivate consumers' perceptions of online shopping and encourage them to buy. Adnan (2014) in his model also explores the impact of website design on consumer behavior in online shopping, and research results have shown that web design has no significant positive impact on consumer behavior and their intention to buy online. Based on the previously conducted research, hypothesis H5 was formed.

H5: Website design has a positive impact on consumer behavior in online shopping.

3. RESEARCH METHODOLOGY

3.1. SCALE DEVELOPMENT

This research examines the impact of perceived benefits, perceived risks, hedonistic motivations, perceptions of security and trust, and website design on customer behavior in online shopping. For the research's needs, a survey questionnaire was constructed, and the questions were taken from previous research. A five-point Likert scale was used to measure the degree of agreement with the statements in the questionnaire (1-strongly disagree, 5-strongly agree). Table 1 shows the original survey questionnaire. Three questions due to low factor load were not used in the further empirical part of the research.

Table 1. Sources – measuring scales

Construct	Source	The initial number of items	The final number of items
Perceived Benefits	Adnan (2014), Forsythe et al. (2006)	7	5
Perceived Risks	Adnan (2014)	6	5
Hedonic Motivations	Adnan (2014)	3	3
Trust & Security	Shahzad (2015), Adnan (2014), Javadi (2012)	4	4
Website Design	Shahzad (2015)	4	4
Online Buying Behavior	Adnan (2014), Javadi (2012), Forsythe et al. (2006)	4	4

Source: The authors

Table 2. Original measurement items

Construct		Items
Perceived Benefits	PRED1	I shop online as I can shop whenever I want to. (24/7 availability)
	PRED2	I shop online as I get detailed product information online.
	PRED3	I shop online because I get a broader selection of products and better deals available.
	PRED4	Online shopping gives the facility of easy price comparison. (Hence, price advantage)
	PRED5	I shop online as I get user/expert reviews on the product.

Perceived Risks	PRED6*	I use online shopping to buy products that are otherwise not easily available in the nearby market or are unique/new.
	PRED7*	I shop online, as there are more payment options available.
	RIZ1	I hesitate to shop online as there is a high risk of receiving malfunctioning merchandise.
	RIZ2	It is hard to judge the quality of the merchandise over the internet.
	RIZ3	I feel that there will be difficulty in settling disputes when I shop online. (e.g., while exchanging products)
	RIZ4	I might not receive the product ordered online.
	RIZ5*	I do not like being charged for shipping when I shop online.
Hedonic Motivations	RIZ6	Getting good after-sale service is time taking and difficult for online purchases.
	HED1	Searching for product information on the Internet is a good way to spend time.
	HED2	Information searching on the Internet is fun rather than tedious.
Trust & Security	HED3	Shopping online is enjoyable.
	POV1	I feel that my credit card details may be compromised and misused if I shop online.
	POV2	I might get overcharged if I shop online as the retailer has my credit card information.
	POV3	I feel that my personal information given to the retailer may be compromised to a third party.
Website Design	POV4	Shopping online is risky because of a lack of strict cyber laws in place to punish frauds and hackers.
	EST1	I buy from online stores only if they are visually appealing and have a well-organized appearance.
	EST2	I buy from online stores only if the navigation flow is user friendly.
	EST3	I buy from online stores only if the site content is easy for me to understand, and the information provided is relevant.
Online Buying Behavior	EST4	I buy from online stores only if they have an easy and error-free ordering and transaction procedure.
	PON1	Using the Internet for online shopping is easy.
	PON2	When I make a purchase, my friend's and family's opinion is important to me.

PON3	I will have no problem with shopping online if I get to know that my friends and relatives are doing it without any issues.
PON4	I would not shop online if Webpage download time is slow

Source: The authors

*Due to the low factor load, it was not considered in further analysis

3.2. DATA COLLECTION

Data for the survey were collected through a questionnaire. The questionnaire was created online, ie, using the Google form, after which the survey link was shared in a group on Facebook. The survey was conducted among respondents who shop online in the Republic of Croatia, and the survey was conducted in April 2020. A total of 240 correct answers were collected. The survey also included demographic questions, the question of the frequency of online purchases, and the question of preferred products purchased online. The answers to these questions are shown in Tables 3, 4, 5, and 6.

Table 3. Gender of respondents

Gender	Frequency	(%)
Male	40	16,7
Female	200	83,3

Source: The authors

Table 4. Age of respondents

Age	Frequency	(%)
18-25	188	78,3
26-30	34	14,2
31-40	11	4,6
Iznad 41	7	2,9

Source: The authors

Table 5. Answer to the question "How long have you been shopping online?"

Period	Frequency	(%)
Less than 6 months	19	7,9
6-12 months	14	5,8
1-2 years	33	13,8
2-3 years	65	27,1
3-5 years	57	23,7
More than 5 years	52	21,7

Source: The authors

Table 6. Answer to the question "What do you prefer to buy online?"

Things (products)	Frequency	(%)
Clothing and accessories	148	61,7
Books and magazines	12	5
Cinema tickets	15	6,3
Products for everyday use	31	12,9
The rest	34	14,1

Source: The authors

4. DATA ANALYSIS

During the analysis of the collected data, the reliability of the measurement construct was measured using the statistical software package SPSS 23, while the testing of hypotheses and relationships between variables used confirmatory factor analysis (CFA) using the software package SPSS AMOS 26.

4.1. INTERNAL RELIABILITY OF THE CONSTRUCT

Cronbach's alpha coefficient measures the internal reliability of a measuring instrument. The determined values of Cronbach's alpha coefficient range between 0.693 and 0.855. Values between 0.6 and 0.7 are considered acceptable. (Ursachi et al., 2015). Table 7 below shows the measured values related to the measuring instrument's reliability and the mean values and standard deviation. The results show satisfactory reliability of the measuring instrument.

Table 7. Internal reliability

Construct	Item	Internal reliability		Mean	SD
		Cronbach alpha	Item-total correlation		
Perceived Benefits	PRED1	0,760	,475	4,304	,948
	PRED2		,576	4,013	,970
	PRED3		,514	4,204	,952
	PRED4		,609	4,367	,817
	PRED5		,490	3,925	1,099
Perceived Risks	RIZ1	0,743	,554	4,025	,989
	RIZ2		,441	3,854	,972
	RIZ3		,526	3,696	1,133
	RIZ4		,575	2,609	1,187
	RIZ6		,442	2,558	1,187
Hedonic Motivations	HED1	0,693	,470	3,388	1,153
	HED2		,624	3,475	1,050
	HED3		,472	4,096	,804

Trust & Security	POV1	0,855	,694	3,221	1,137
	POV2		,616		
	POV3		,806		
	POV4		,680		
Website Design	EST1	0,793	,551	2,858	1,269
	EST2		,721		
	EST3		,554		
	EST4		,604		
Online Buying Behavior	PON1	0,759	,498	4,432	,566
	PON2		,652		
	PON3		,594		
	PON4		,516		

Source: The authors

4.2. MODEL VERIFICATION USING THE STRUCTURAL EQUATION MODELING METHOD – SEM

The structural equation modeling method is a technique used to estimate the correlation between dependent and independent variables. The analysis measured the relationships between the independent variables and the dependent variables set in the conceptual framework. In order to determine whether the defined model corresponds to the empirical data and to determine the relationships between the variables, the following matching indices were used: GFI, AGFI, IFI, TLI, CFI, RMSEA, and SRMR. Table 8 shows that the matching indices met the recommended values, so it is concluded that the tested model achieved satisfactory values, i.e., the model has an acceptable "fit model." Figure 2 shows a structural model of behavior in online shopping.

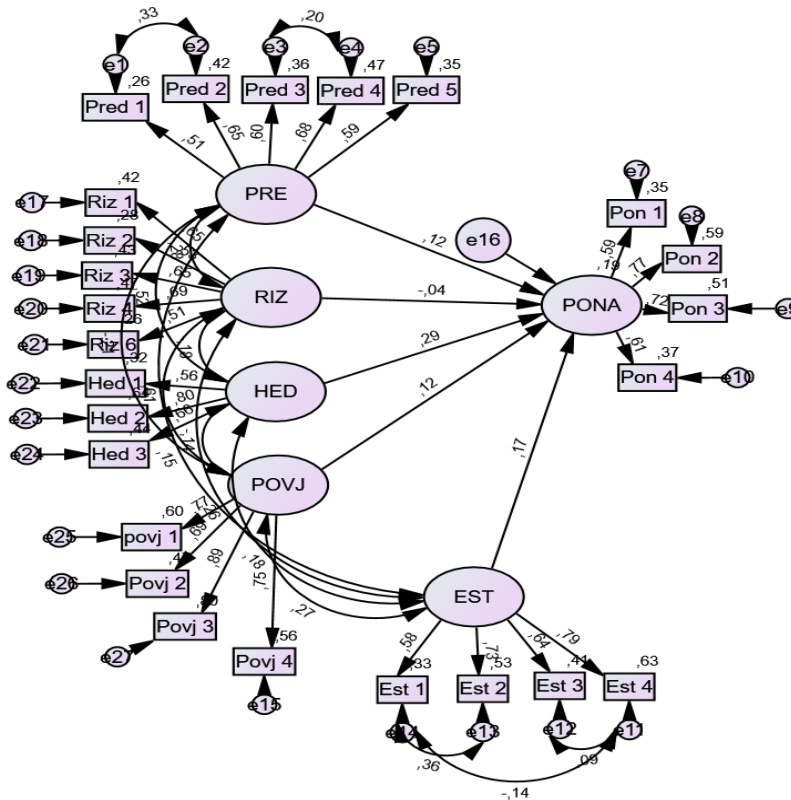
Table 8. Fit indices

Fit index	Model	Recommended value	Source
Chi-square	379,518;255 p<.0,001		
χ^2/df	1,488	<5	Park & Kim, (2014)
GFI	0,888	>0,8	Halmi, (2016)
AGFI	0,857	>0,8	Halmi, (2016)
IFI	0,936	>0,9	Park & Kim, (2014)
TLI	0,923	>0,9	Kim & Han, (2014)
CFI	0,935	>0,9	Hu & Bentler, (1999)
RMSEA	0,045	0,03 to 0,08	Hair et al., (2014)

SRMR	0,063	<0,08	Hair et al., (2014)
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Source: The authors

Figure 2. Structural model of behavior in online shopping



Source: The authors

4.3. HYPOTHESIS TESTS

Hypothesis H1 has not been confirmed; no statistically significant positive impact of online shopping's perceived benefits on consumer behavior in online shopping has been found ($\beta = 0.115$, CR = 1.035, $p > 0.05$). Hypothesis H2 was not confirmed because no statistically significant negative impact of perceived risks of online shopping on consumer behavior in online shopping was determined ($\beta = -0.045$, CR = -0.387, $p > 0.05$). Hypothesis H3 was confirmed, a statistically significant positive influence of hedonistic motivations on consumer behavior in online shopping was determined ($\beta = 0.290$, CR = 2,600, $p < 0.05$). Hypothesis H4 has not been confirmed; no statistically significant negative impact of online shopping's perception of trust and security on consumer behavior in online shopping has been found. ($\beta = 0.116$, CR = 1.114, $p > 0.05$). Hypothesis H5 has not been confirmed; no statistically significant positive influence of aesthetics and web store design on consumer behavior in online shopping has been established ($\beta = 0.166$, CR = 1.791, $p > 0.05$). A structured model with the results of hypothesis testing is shown in Figure 3 and Table 9.

Table 9. Summary of the hypothesis testing results

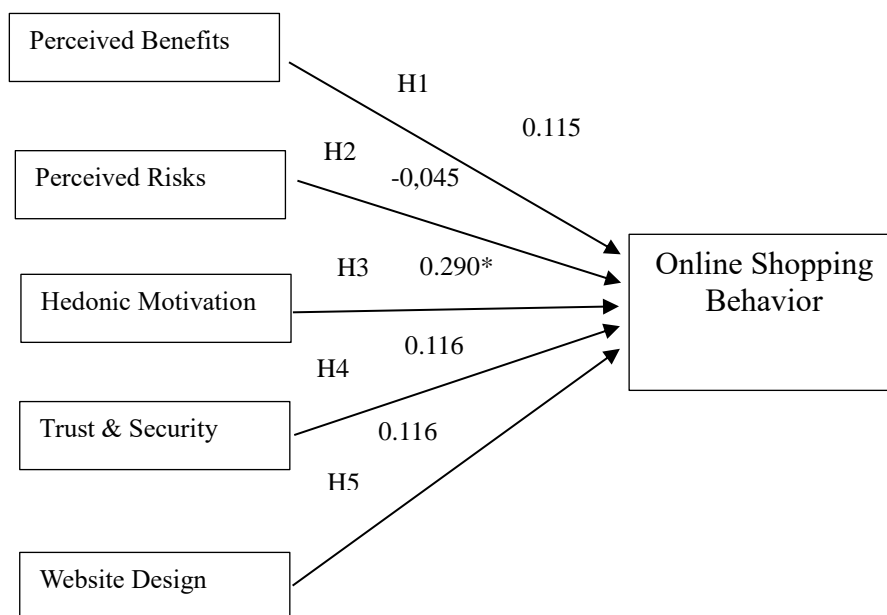
Hypothesis	Independent variable	Dependent variable	Standard estimate	CR	P-value	(Not)supported
H1 (+)	PRED	PON	0,115	1,035	0,301	Not supported
H2 (-)	RIZ	PON	-0,045	-0,387	0,699	Not supported
H3 (+)	HED	PON	0,290	2,600	0,008*	Supported
H4 (-)	POVJ	PON	0,116	1,114	0,265	Not supported
H5 (+)	EST	PON	0,166	1,791	0,073	Not supported

* P < 0,05

PRED - Perceived Benefits; RIZ - Perceived Risks; HED - Hedonic Motivations; POVJ - Trust & Security; EST - Website Design; PON - Online Buying Behavior

Source: The authors

Figure 3. Results of a hypothesis test



*p<0,05

PRED - Perceived Benefits; RIZ - Perceived Risks; HED - Hedonic Motivations; POVJ - Trust & Security; EST - Website Design; PON - Online Buying Behavior

Source: The authors

5. DISCUSSION, IMPLICATIONS, AND LIMITATIONS

The purpose of the research conducted in this paper was to determine the relationship between perceived benefits of online shopping, perceived risks, hedonistic motivation, perception of trust and security of online shopping, and web store design to consumer behavior in online shopping. The survey was conducted among Croatian consumers who buy online. The study results show that hypothesis H3 was confirmed, while hypotheses H1, H2, H4, and H5 were not confirmed. Hypothesis H1 has not been confirmed; the research results indicate that consumer perception of the benefits provided by online shopping does not have a significant positive impact on online shopping behavior. The result of this research is not consistent with the results of previous research (Adnan, 2014) and (Akroush and Al-Debei, 2015), where their association was found.

Hypothesis H2 has also not been confirmed; the analysis results show that the perceived risks do not have a significant negative impact on consumer behavior in online shopping. Thus, risks such as losing money, obtaining a defective product, or not delivering a purchased product do not significantly negatively impact customer behavior when shopping online. Respondents believe that there is no significant risk of non-delivery of the product and long waiting for delivery of the purchased product. The result of the conducted research is not consistent with the results conducted by Abrar et al. (2017), which found a negative relationship between risk (financial risk, product risk, time risk, and delivery risk) and consumer tendencies towards online shopping, and research by Adnan (2014), who found that perceived risks have a significant negative impact on behavior consumers in online shopping.

Hypothesis H3 has been confirmed; the research results indicate that hedonistic motivations for online shopping have a positive impact on consumer behavior in online shopping. Thus, hedonistic motivations such as fun or excitement positively affect respondents' online shopping behavior, and respondents find online shopping enjoyable. This leads to the conclusion that consumers in the Republic of Croatia enjoy shopping online. The result obtained is consistent with Kim and Eastin's (2011) research, who found a significant association between hedonistic motivations for online shopping and impulsive shopping.

Hypotheses H4 and H5 have not been confirmed. Hypothesis H4 found that the perception of trust and security of online shopping does not have a negative impact on consumer behavior in online shopping. In other words, respondents' perceptions of online shopping's trust and security do not negatively affect their attitudes and behavior in online shopping. Respondents believe that their online shopping data will not be misused or will fall into the hands of a third party. This leads to the conclusion that consumers in the Republic of Croatia have confidence in online shopping and do not consider it a risky, but a safe way to buy. The result obtained is consistent with research by Aksoy and Basaran (2013), who found that perceptions of trust do not have a direct impact on consumer attitudes and intentions in online shopping.

Hypothesis H5 found that web design does not have a significant positive impact on consumer behavior in online shopping. That is, the store website's visual appearance does not have a significant positive impact on the behavior of respondents in online shopping. Respondents feel that it is more important than the appearance that the information on the website is relevant. The research results are consistent with a study conducted by Adnan (2014), who concluded that website design does not have a significant positive relationship with the intention to buy online.

Insight into previous research has shown that so far, no similar research has been conducted on Croatian consumers' behavior in online shopping, which reflects the basic scientific contribution in the new knowledge related to the field of research. In addition to scientific research, it has its professional contribution in terms of better understanding the factors that influence the behavior of Croatian consumers in online shopping, which can be useful to marketing and sales professionals in creating business strategies.

The basic limitation is the sample size. Only users of one social network (Facebook) had access to the survey, which may affect the results' representativeness. The recommendation for further research is to increase the number of samples by including more diverse channels of distribution of survey questionnaires and the inclusion of demographic indicators in the research model.

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