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THE INFLUENCE OF WEBSITE QUALITY ON COGNITIVE AND AFFECTIVE ATTITUDES TOWARDS ORGANIC FOOD

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Using websites for commercial purposes has been noticeable in numerous areas in recent years, including the organic food market, among others. The era of digitalization has implied that an increasing number of consumers form their views on organic food based on information that is marketed via websites, instead of going to traditional stores. In accordance with that, the aim of the paper is to examine whether the quality of a website, measured by its usability, design and the quality of information, affects consumers' cognitive and affective attitudes towards organic products. In this paper, exploratory factor analysis is carried out along with multiple regression analysis. The research results indicate that, in the organic food sector, it is very important to have a website which is both usable and visually appealing, simultaneously containing quality and updated information, which all can greatly influence the formation of users' attitudes towards organic food, their attitudes being made of the rational emotional dimensions as well. The contribution of this research study is particularly significant bearing in mind the fact that attitudes towards organic food are mostly examined in a traditional environment, not so much in an online environment.

Keywords: website, organic food, cognitive attitudes, affective attitudes

JEL Classification: M31

INTRODUCTION

Bearing in mind the fact that modern consumers are spending more and more time on the internet (Lee, Hong & Lee, 2017), manufacturers and entrepreneurs are striving to find out how the presentation of their content using this communication method can create new business opportunities. In that sense, using websites for commercial purposes is listed as one of the fields of extreme importance. The interaction between consumers and business entities is quite often performed via websites, which are increasingly being assigned the attribute of being the key means of communication (Kim & Stoel, 2004). Since the nature of an online environment is specific in that products can neither be physically touched nor seen (Lee *et al*, 2017), websites increase consumers' impressions on the current offer.

There are almost no areas of business in which at least one part of the business strategy is not based

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on a high-quality website (Aladwani & Palvia, 2002), the production and sale of organic food being one of them. When searching for the products that are healthier but also better for the environment (Chen, 2009), consumers are increasingly beginning to give precedence to organic products in their choice of food. Because it is seen as one of the sources of health, as well as a way to decrease the activities that are harmful to the environment, the organic food market is increasingly experiencing a tendency to grow. Moreover, the current pandemic situation and the development of online trade as well additionally contribute to the fact that organic food is increasingly being purchased through online channels (Ćirić, Ilić, Ignjatijević & Brkanlić, 2020).

Considering the limited nature of the offer and a lack of time, the purchase of organic products is often done using the websites of specialized stores (Hasanov & Khalid, 2015). In this field, the consumer has numerous alternatives to choose from (Sapic, Filipovic & Dlacic, 2019). Considering the fact that organic food consumers need more thorough pieces of information compared to the consumers of traditional products when shopping online (Lee & Yun, 2015), it is the responsibility of the website creators to solve all doubts and enable a comfortable purchase by using this communication form.

Unlike the previous research that mostly puts an emphasis on the motives for buying organic products regardless of whether they are bought in an online environment or in an offline one, what makes this research specific is that it follows modern demands for website-based shopping. The subject matter of the research study is to examine the interdependence between the quality of the website and the attitudes towards organic food, the attitudes being made up of cognitive and affective components. In accordance with that, the goal of the research is to examine whether website quality, measured by its usability, design and the quality of the information presented on the website, affects consumers' attitudes or not.

In accordance with the determined research study subject matter and objectives, appropriate qualitative and quantitative methodologies were used. Within the framework of the qualitative methodology, systemic thinking was applied in order to examine the relationship between the quality dimensions of the website and users' attitudes towards organic food. Afterwards, in order to reach relevant conclusions regarding the observed variables, the analysis of the content of numerous theoretical and empirical publications was carried out. In addition to this, the comparative method was used as well so as to identify the similarities and differences in the influence that the website quality dimension has on cognitive and affective attitudes towards organic food. The quantitative methodology implies the implementation of the statistical method. Thus, a questionnaire was used as the data collection instrument. As for statistical analyses, exploratory factor analysis and multiple regression analysis were made.

Even though the research stresses the role of websites in the creation of consumers' attitudes (Bilgihan & Bujisic, 2015), breaking down the attitude dimensions into the cognitive and affective components is the way to observe this problem in the field of organic food that has not been analyzed sufficiently. Bearing in mind the fact that psychological concepts are increasingly being applied in the context of marketing research, it is not surprising that consumer behavior with the inclusion of the affective component has been transferred from predominantly applied psychological studies (Alcántara-Pilar, Blanco-Encomienda, Armenski & Barrio-García, 2018a) to the field of consumer behavior. By studiously examining the relevant literature, several papers whose research subject focuses on the affective component of consumer behavior have been identified (Alcántara-Pilar et al, 2018a). Still, the researchers' intention is to encompass both the cognitive and the affective dimensions by applying an integrative approach and examine their relationship with website characteristics.

In the first place, the paper gives an overview of the theoretical concepts in accordance with the current literature. Then, the conceptual bases of organic food, the quality of the website and its constituent dimensions are highlighted. Following the research model, the defined hypotheses are defined. Finally, after elaborating the results, the key contributions of the research study are summarized, and certain limitations and future directions of the research framework are presented in the conclusion.

LITERATURE REVIEW

Organic food

As relatively new products in the market (Chen, Lobo & Rajendran, 2014) and as one of the fastest-growing segments in the food field (Thøgersen, Pedersen, Paternoga, Schwendel & Aschemann-Witzel, 2017), organic products are increasingly becoming the consumer's choice. The organic food market is rapidly increasing (Çabuk, Tanrikulu & Gelibolu, 2014; Thøgersen et al, 2017; Rodríguez-Bermúdez, Miranda, Orjales, Ginzo-Villamayor, Al-Soufi & López-Alonso, 2020). The pronounced awareness of the negative impact and use of chemicals in food production leads to a more intensive search for a healthier lifestyle. Organic food contains fewer additives and chemicals (Chen, 2009), is based on renewable energy resources and excludes the use of synthetic fibers and pesticides (Ashraf, Joarder & Ratan, 2019). This is the reason why organic food is often labeled bearing the words such as "healthy", "fresh" or "clean" (Chan, 2001). The most common motives for choosing organic food are primarily caring for one's health (Chen, 2009; Hamzaoui Essoussi & Zahaf, 2009; Çabuk et al, 2014; Chen et al, 2014; Basha, Mason, Shamsudin, Hussain & Salem, 2015; Thøgersen, Dutra de Barcellos, Gattermann Perin & Zhou, 2015) and the environment (Çabuk et al, 2014; Chen et al, 2014). Using organic food is still in the initial stage on the Republic of Serbia's market, mostly because of the high prices of organic products (Grubor, Djokic, Djokic & Kovac-Znidersic, 2015; Ćirić et al, 2020). However, demand for these products has increased in the past few years.

Many studies point to the differentiation of the factors that affect consumers' attitudes towards organic food (Chen, 2009; Basha *et al*, 2015; Rodríguez-Bermúdez *et al*, 2020). In the largest number of those studies, the dominant factors which determine attitudes towards organic food are health and taking care of the environment (Chen, 2009). When the intention to buy organic food is concerned, it is determined by numerous factors. M. B. Basha and D. Lal (2019) claim that these factors are taking care of the environment, health, product quality, support for local producers, safety and trust, and subjective norms. However, with the recent intensive development of the Internet and the Internet-based technologies, there are other factors which can be pointed out specific to the online environment which can influence attitudes towards and a choice of organic food (Hasanov & Khalid, 2015; Ćirić, Ignjatijević, Ilić, Puvača & Brkanlić, 2021). Thus, for example, M. Cirić et al (2021) take into consideration the characteristics of the website when examining the online purchase of organic food.

It is also important to emphasize the fact that the development of online trade enables new sales opportunities for numerous products, including those of the organic origin (Yue, Liu & Wei, 2017; Tariq, Wang, Tanveer, Akram & Akram, 2019; Cirić et al, 2020). The current pandemic situation has additionally influenced the fact that organic food consumers avoid shopping in the stores themselves, relying on online shopping instead (Ćirić et al, 2020; Lin, Li & Guo, 2021; Ćirić et al, 2021), which additionally justifies the choice of the research concept model used in this paper. One of the studies conducted in the territory of the Republic of Serbia showed that the pandemic had resulted in an increase in the percentage of the consumers who buy organic food online (Ćirić et al, 2020).

In the last few years, the development of the Internet and online sales channels has contributed to the fact that, in numerous areas, the website is used as one of the dominant means for informing consumers and carrying out transactions (Tariq *et al*, 2019). When marketing information about organic food, the website plays a crucial role (Tariq *et al*, 2019). The authors indicated that the quality of the website in the field of organic food is particularly significant (Hasanov & Khalid, 2015; Fernández-Uclés, Bernal-Jurado, Mozas-Moral & Medina-Viruel, 2019). This statement is confirmed by the fact that websites are particularly attractive in the sectors such as organic food where frequently there are commercial obstacles implying a lack of sales points, which further promotes online shopping (Fernández-Uclés et al, 2019). In their study explaining the choice of food during the growth and development of online trade, O. Wang, S. Somogyi and S. Charlebois (2020) mention that the quality of the website was not explained as an important factor in the study of consumer attitudes, which was one of the potential limitations of the study. A. Tariq et al (2019) confirmed that the quality of the website has a moderating influence when observing the relationship between consumers' attitudes towards and their buying behavior when purchasing organic food. Website quality has both a direct and positive influence on the intention to purchase organic food (Hasanov & Khalid, 2015). However, there is a gap in the literature with respect to a lack of papers, which indicates the direct influence of website quality when forming organic food consumers' attitudes in the territory of the Republic of Serbia.

Website quality

As an effective marketing resource (Hwang, Yoon & Park, 2011), the website and its quality are exposed to constant evaluation (Ahn, Ryu & Han, 2007; Chen, Huang & Davison, 2017). As a multidimensional construct (Kim & Stoel, 2004), website quality is defined as "a user's evaluation of a website which meets the user's needs and shows the overall characteristics of the website" (Aladwani & Palvia, 2002). As "a portal through which transactions are realized" (Ahn et al, 2007), the website is applicable in numerous fields, the organic food field being increasingly present there. In accordance with the results of the previous research studies that confirm the claim that website quality is an exceptionally important factor in defining consumers' attitudes (Tariq et al, 2019) and, consequently, their current behavior (Alcántara-Pilar et al, 2018a), the intention is to identify whether the given relationships can be confirmed in the organic food field as well or not.

The study of the basic components of the website characteristics in various research approaches

encompasses numerous dimensions. For example, when studying satisfaction and the purchase intention as the two main determinants of website quality, B. Bai, R. Law and I. Wen (2008) list its functionality and usability. There are authors who analyze website quality through the following variables: website usability, design, information quality, trust, perceived risk and empathy (Mohd Sam & Hayati Tahir, 2009). As the key two variables that show website quality, E. Huizingh (2000) also lists content and website design.

When studying the role of websites in the context of analyzing the organic food market, D. Fernández-Uclés et al (2019) state that the website is precisely the key means of establishing a relationship with consumers, considering the fact that it combines the informative, relational and transactional functions. In a similar manner, the website is listed as an attractive sales channel in the organic food sector (Fernández-Uclés et al, 2019). Even though website quality is included in many research models, there is no standardized model possible to apply (Martinez-Sala, Monserrat-Gauchi & Alemany-Martinez, 2020), especially so in the organic food examination context. The choice of the variables that will be used is based on a review of previous research and a comprehensive approach to examining the factors deemed to be important in the given field accordingly.

Website usability

Many authors agree that one of the key aspects of website quality is its usability (Belanche, Casalo' & Guinali'u, 2012; Martinez-Sala *et al*, 2020). This term normally implies the ease of use of a website, which significantly facilitates the end consumer's searching and decision-making process. In the modern business environment, consumers represent the "essential input" in the marketing strategy formulation and implementation process (Maričić, 2011, 47), which is the reason why meeting their desires and needs is listed as a priority for almost all business activities. Recognizing their affinities and needs is precisely what enables an increase in the perceived usability in an online environment and the website, as one of the mediators between companies and consumers, enables a better user experience (Alcántara-Pilar et al, 2018a). In the website context, such perceived usability primarily reflects in the ease of use of the website (Alcántara-Pilar et al, 2018a). D. Belanche et al (2012) state that the greater the usability of a website, the more positive consumers' attitudes. In their empirical study, N. Chung, H. Lee, J. S. Lee and C. Koo (2015) confirmed that website usability was an important antecedent of consumer attitudes and, consequently, of their concrete actual behavior. In their study, J. M. Alcántara-Pilar, F. J. Blanco-Encomienda, M. E. Rodruguez Lopez and S. Del Barrio-García (2018b) pointed out the fact that website usability had a statistically significant and positive impact on the user's attitudes, which is why the paper generates the following hypothesis:

H1: Website usability has a positive and statistically significant influence on organic food consumers' a) cognitive and b) affective attitudes.

Website design

When examining website characteristics, design is listed as one of the key variables which determine what the consumer's decision will be (Zhou, Lu & Wang, 2009; Bufquin, Park, Back, Nutta & Zhang, 2020). Since consumer behavior is a very complex research area, marketing experts strive to identify the key variables that define the decision-making process. The aspects of website design contribute to users' experience (Bufquin et al, 2020) and they are mostly associated with aesthetic characteristics such as images, colors, graphic elements, a font, videos, and other similar things (Luna-Nevarez & Hyman, 2012). In accordance with the results obtained in previous research studies, website design may be connected to consumer behavior (Jones & Kim, 2010). M. Ćirić et al (2021) examined the online purchase of organic food and stated that design and aesthetic components were one of the website characteristics that can be brought into connection with consumer behavior. Website design can have numerous cognitive and motivational effects on consumer behavior in online shopping, and its connection with consumers' attitudes towards organic food has been confirmed as such (Tariq et al, 2019). This is the reason why the paper generates the following hypothesis:

H2: Website design has a positive and statistically significant influence on organic food consumers' a) cognitive and b) affective attitudes.

Information quality

The specific nature of the organic products not bought in a traditional way requires that the online seller should adequately present all the characteristics of his products, together with visual support and a detailed description. When elaborating on the characteristics of websites, many authors list information quality as an integral variable (Cao, Zhang & Seydel, 2005; Chen et al, 2017). In the relevant sources that explain website quality and its connection with consumers, promoting the significance of information quality is described as "content is king" (Huizingh, 2000). Information quality on a website is "extremely significant" (Cao et al, 2005), which is the reason why this variable represents an integral component of the research framework examining organic food consumers' attitudes. When speaking about information quality in the website context, authors mostly point out authenticity and relevance (Cao et al, 2005), i.e. it is of vital importance for potential organic food consumers that the information should be clear, up-to-date and reliable (Chen et al, 2014). In accordance with the previous results, the paper generates the following hypothesis:

H3: Information quality on a website has a positive and statistically significant influence on organic food consumers' a) cognitive and b) affective attitudes.

Attitudes towards organic food

The study of the attitudes towards organic food has been the focus of an increasing number of authors (Chen, 2009; Chen *et al*, 2014; Basha & Lal, 2019; Tariq *et al*, 2019; Rodríguez-Bermúdez *et al*, 2020). In order to examine the organic-food-related specifics, attitudes are one of the essential variables (Thøgersen *et al*, 2015). One of the earliest definitions reads "attitudes imply positive or negative feelings that a person might have about a target behaviour" (Fishbein & Ajzen, 1975, 216). In this paper, attitudes are understood as being made of cognitive and affective components. While the cognitive component deals with costs, i.e. benefits (Chen, Phelan & Chang, 2016), the affective dimension of attitudes refers to the positive or negative feelings that a consumer might form in relation to a specific stimulant (Hwang et al, 2011). Cognitive attitudes relate to the extent to which individuals like or dislike an object usually based on its usability or functionality (Moon, Khalid, Awan, Attiq, Rasool & Kiran, 2017). Affective attitudes, on the other hand, are growingly associated with psychological research (Dai, Arnulf, Iao, Wan & Dai, 2019) and related to the emotional experience arising from using an object (Moon et al, 2017). When observed in the organic food context, cognitive attitudes can, for example, refer to what benefits the use of organic products provides, whereas the affective dimension concerns the fact that the use of organic food affects the sensory senses and provides satisfaction for consumers (Lee & Yun, 2015).

Research ambitions go one step further, so they move from the classical environment to the online one (Park, Stoel & Lennon, 2008) in order to determine how consumers' attitudes towards a website are formed (Lee *et al*, 2017). In the same way that marketing stimulants can affect consumers by cognitive and affective processes in the traditional environment (Hwang et al, 2011), the same logic can be applied when the online environment is concerned. Previous research has confirmed the fact that online shopping attitudes contain an explicit cognitive component and an implicit affective component (Dai *et al*, 2019). After examining the attributes of websites which can influence online shopping attitudes, M. A. Moon et al (2017) also emphasize the importance of the specific examination of the cognitive and affective components of an attitude. Bearing in mind the fact that consideration between the alternatives is characterized by the cognitive thought process (Chen, Phelan & Chang, 2016), all the information that might facilitate that process when choosing organic food should be clearly defined via the website. Also, it has been determined that the evaluation, purchase and consumption processes are characterized by certain emotions as well (Chen *et al*, 2016), so affective attitudes are studied in that context (Park *et al*, 2008).

H. J. Lee and Z. S. Yun (2015) state, most papers analyze attitudes as a one-dimensional concept, whereas the breaking down of attitudes into the cognitive and affective components in the organic food field is noticed in significantly fewer papers (Dean, Raats & Shepherd, 2008). A two-dimensional approach to examining organic food consumers' attitudes towards website quality is a novelty, especially in the territory of the Republic of Serbia.

RESEARCH METHODOLOGY

In order to collect data, the survey method was applied as one of the methods most commonly used in similar types of research. Bearing in mind the fact that organic food sale is still in the development phase in the territory of the Republic of Serbia, the survey included only those respondents who had previously stated that they had purchased organic products via a website as it was the case in similar studies (Tariq et *al*, 2019). There are only a few organic online stores in Serbia. So, after connecting with those stores, the data collection process was easier to perform. In order to test the previously defined hypotheses, the data were obtained by distributing the questionnaire in person and via the Internet. The research was conducted in the territories of Belgrade and Kragujevac in the period from September to December 2021. A total of 140 questionnaires were ultimately collected through the survey. A seven-point Likert scale was applied as one of the most frequently used in the papers dealing with this issue (Sapic, 2017; Tariq et al, 2019). The variables used for the research model were measured by the findings having been taken from the relevant studies for the purposes of the research study. Website quality was measured based on the three variables: website usability, website design and information quality. Thus, the findings on website usability were taken from the studies by D. Belanche et al (2012) and Alcántara-Pilar et al (2018b). Website design was measured based on the findings retrieved from a study conducted by V. H. Le, H. T. T. Nguyen, N. Nguyen and S. Pervan (2020). Information

quality was measured based on the three statements taken from the studies by X. Chen *et al* (2017) for the purposes of the research. When consumer attitudes towards organic food are concerned, the cognitive and affective components were measured through the findings taken from the research studies conducted by H. J. Lee and Z. S. Yun (2015) and M. A. Moon *et al* (2017).

In order to test the hypotheses for the purpose of the research study, statistical processing and data analysis were performed by using the SPSS (The Statistical Package for the Social Sciences-SPSS, version 21) software package. As for the statistical analyses, descriptive statistics were used at the beginning of the research, only to be followed by exploratory factor analysis and multiple regression analysis. The defined variables and the stated relationships between them are presented by a conceptual research model (Figure 1).

RESEARCH RESULTS

In order to group the statements from the questionnaire into factors, exploratory factor analysis





Source: Authors

was applied in this paper, which allowed for the extraction of the three factors (website usability, design and information quality), and principal components analysis was used as the factor extraction method. In accordance with the relevant literature, the Bartlett sphericity test and the Kaiser-Meyer Olkinov-KMO sample adequacy index were taken into account (Table 1). The value of the KMO indicator is 0.803, which is significantly above the recommended limit value

Website usability	Factor loadings	Cronbach alpha	AM	SD
Website usability	Ì	0.815		
Organic food websites are easy to understand.	0.602		6.11	0.707
Organic food websites are easy to use, even when they are used for the first time.	0.749		6.19	0.719
It is easy to find the necessary information on organic food websites.	0.899		6.18	0.649
The structure of the website organic-food-related content is easy to understand.	0.814		6.12	0.640
Website design		0.771		
Organic food websites are visually appealing.	0.752		5.09	0.645
Organic food websites efficiently use colors.	0.757		4.85	0.656
Organic food websites have the right font.	0.792		4.82	0.692
Organic food websites contain impressive images and materials.	0.758		4.94	0.648
Information quality	0.757			
Organic food websites contain relevant information.	0.759		6.06	0.648
Organic food websites contain a sufficient amount of information.	0.920		6.14	0.626
Organic food websites contain true information.	0.601		6.11	0.675
Bartlett sphericity test	0.000			
КМО	0.803			

Table 1 The results of exploratory factor analysis

Source: Authors

0.5 (Janković-Milić & Jovanović, 2019). The Bartlett sphericity test has a statistically significant value (Sig = 0.000), which shows that there is a statistically significant correlation between the original variables and that the application of factor analysis is justified.

In the initial research phase, the values of the descriptive statistics for the original variables are presented (Table 1). The value of the Cronbach alpha coefficient is shown in order to examine whether the factors that reflect website quality have an appropriate level of internal consistency or not, i.e. whether the items that make up the factors represent reliable scales or not. Its value above the acceptable value 0.7 (Nunnally, 1978) indicates that the variables are reliable, i.e. the statements used to measure them are internally consistent. Table 1 shows the obtained factors, the values of the factor loadings in each factor, as well as the value of the Cronbach alpha coefficient.

Factor isolation was performed by using the oblimin rotation, thus achieving a simple factor structure. Only those statements where the absolute factor weight value was above 0.5 were kept, whereas the others were deleted, as in similar studies (Chen et al, 2014). The first factor refers to website usability, the second factor involves website design, while the third factor relates to information quality on the website. Also, it is important to point out the fact that those factors whose characteristic value was greater than 1 were also retained (Kim & Stoel, 2004). The total percentage of the variability explained by these three factors is 65.19%, which is above the recommended value 60% (Janković-Milić & Jovanović, 2019) and in line with similar research (Kim & Stoel, 2004; Chen et al, 2014).

In order to examine the influence of the three observed factors on the respondents' cognitive attitudes, multiple regression analysis was performed. Taking into consideration the initial assumptions for the application of this type of analysis, the regression model indicators are presented in Table 2. The observed model is representative (Sig = 0.000), the value of the determination coefficient is 0.337,

which shows that 33.7% of the variability of the *cognitive attitudes* dependent variable is explained by the foregoing factors. The results of the regression analysis indicate that the website usability-related factor individually contributes the most to the cognitive attitudes in relation to organic food (ß = 0.299, p = 0.000). Also, website design ($\beta = 0.219$, p =(0.004) and information quality ($\beta = 0.269$, p = 0.000) both have a positive and statistically significant impact on cognitive attitudes when organic food is concerned. This result implies that the hypotheses H1a, H2a and H3a can be confirmed. Also, it is concluded that multicollinearity is not a problem in the observed relationships, bearing in mind the fact that the variance inflation factor (VIF) has a value lower than 5 in all the observed cases.

Table 2 The results of multiple regression analysis(the cognitive attitudes are dependent variables)

Variable	ß	Т	Sig.	VIF
Website usability	0.299	3.815	0.000**	1.259
Website design	0.219	2.936	0.004**	1.141
Information quality	0.269	3.579	0.000**	1.164

Note: ** the value is significant at the 0.05 level

Source: Authors

In a fashion similar to the previous research logic, multiple regression analysis was conducted again, with the affective attitudes observed as the dependent variable this time. The applied multiple regression analysis model indicators are shown in Table 3. In the given representative statistical model (Sig = 0.000), the value of the determination coefficient is 0.438, which implies that 43.8% of the variability of the *affective attitudes* dependent variable is explained by these three factors. By observing the other indicators, it is concluded that all the factors have a positive and statistically significant impact on affective attitudes towards organic food.

Variable	ß	Т	Sig.	VIF
Website usability	0.417	5.775	0.000**	1.259
Website design	0.117	1.710	0.090*	1.141
Information quality	0.322	4.639	0.000**	1.164

 Table 3 The results of multiple regression analysis (the affective attitudes are the dependent variables)

Note: * the value is significant at the 0.1 level; ** the value is significant at the 0.05 level

Source: Authors

It can be concluded that the strength of the influence of the given factors measured by the coefficient β is more emphasized when website usability in relation to organic food ($\beta = 0.417$, p = 0.000) is concerned when compared to information quality ($\beta = 0.322$, p = 0.000) and website design ($\beta = 0.117$, p = 0.090). Hence, the hypotheses H1b, H2b and H3b are confirmed.

DISCUSSION

The conducted empirical research study represents the starting point for examining future consumer behavior in the online environment when choosing organic food is in question. By observing the value of the descriptive statistics, it can be concluded that organic food consumers gave the highest average ratings to the website usability-related statements. More precisely, the respondents included in the sample believe that websites are easy to use even when they are used for the first time. As for website design, the respondents' most favorable attitudes are those towards the fact that such websites are visually attractive, whereas the lowest value of the standard deviation relates to the same statement, that is to say to the highest homogeneity of the organic food users' attitudes. Finally, when looking at the descriptive statistics on information quality, the research results show that the most favorable and the most homogenous attitudes appear to be those towards the organic food websites containing a sufficient amount of information.

When speaking about the results of the testing of the hypotheses given in the paper, this empirical research study indicates that, observed through the three dimensions, website quality has a positive and statistically significant impact on both cognitive and affective attitudes towards organic food, thus all the hypotheses defined in the paper being confirmed. The connection between website quality and the attitudes was already confirmed in previous studies (Tariq et al, 2019). More specifically, the authors confirmed the relationship between website usability and the attitudes (Chung et al, 2015; Alcántara-Pilar et al, 2018a), website design and the attitudes (Tariq et al, 2019) and information quality on the website and the attitudes (Cao *et al*, 2005). Although all the three dimensions have a positive and statistically significant influence on the attitudes towards organic food, the results of this paper indicate that it is interesting that the role of design is emphasized the least, contrary to the author's expectations. This result could be explained by the fact that previous studies pointed out the fact that consumers' perceptions of and attitudes towards organic food can differ depending on the region and countries where the studies are conducted (Rodríguez-Bermúdez et al, 2020). Also, the findings relating to design predominantly focused on the aesthetic characteristics of a website, whereas there are authors who examined design through other findings, such as navigation or technical characteristics, for example (Zhou et al, 2019).

Moreover, the research results correspond to the previous scientific studies in which attitudes are observed as a two-dimensional concept (Lee & Yun, 2015; Moon et al, 2017; Dai et al, 2019). An easy-to-use and well-designed website containing a sufficient amount of information has a positive effect on the cognitive dimension of users' attitudes. Nevertheless, the results of previous studies confirmed the fact that, in the online environment, it is important that the emotional aspects of consumer behavior should be analyzed (Moon et al, 2017), which was done in this paper by observing the relationship between website quality and the affective attitudes. The results indicate that all the three dimensions of website quality, namely its usability, design and information quality can be predictors of affective attitudes towards organic food.

CONCLUSION

Online business is increasingly gaining in superiority over the traditional forms of doing business. The turbulent development in this area is an incentive for marketing the professionals who seek to identify the key factors in consumer behavior in the online environment. Consumer behavior trends in the organic food field indicate that future papers will increasingly be based on the study of the factors which determine the online purchase of organic products (Ćirić *et al*, 2020).

One way to spread information and make purchases online is through a website. As a platform for promoting products and services (Martinez-Sala et al, 2020), the website significantly facilitates informing consumers and also helps to achieve the company's business goals. Via the website, the company communicates with both the existing and potential consumers. So, in order to achieve a win-win situation both for companies and for users, it is essential to examine which characteristics of the website are particularly important for consumers. A clear, useful, and visually appealing website provides numerous benefits to increasingly demanding users and enables companies to maintain a competitive position (Ahn et al, 2007). The information presented through the website significantly facilitates the selection process for consumers and reflects the content of the website (Chen et al, 2017).

During the process of integrating internet technologies into consumers' everyday life, the website is becoming an essential shopping process tool when the food market is concerned (Fernández-Uclés et al, 2019). In the paper, it was essential to establish which characteristics of website quality dominantly influenced consumer behavior, or more precisely the formation of their attitudes. In this sense, this paper aimed to identify whether website quality measured through the usability, design and information quality components affected organic food consumers' cognitive and affective attitudes. The research results confirmed the initially defined hypotheses that all the three factors had a statistically significant and positive impact on cognitive and affective attitudes.

This paper has both scientific and practical implications. The theoretical contribution of the research primarily reflects in the fact that, through the research integrative framework, the website is brought into connection with the users' cognitive and affective attitudes towards organic food. Also, one of the key theoretical contributions of the research study is that it emphasizes the research in the factors inherent in online organic food purchase, i.e. it points out the fact that even in this area attitudes can be formed under the influence of some other factors, such as the website. Prior research was mainly focused on the formation of organic food users' attitudes as a result of the concern for their health or for the environment.

The research study also has a significant applied contribution. As can be seen from the previous theoretical assumptions and the empirical research, organic product retailers should make more significant efforts in order to enrich the website with the elements that allow for a better market orientation (Fernández-Uclés et al, 2019). This research study makes a contribution by pointing out the importance of using modern technologies in the organic food market and by opening new opportunities for the creators of marketing strategies. Furthermore, the guidelines resulting from the conducted research study could improve business indicators and provide numerous benefits for the users who base their decisions on the choice of organic food on the website, i.e. after using the website.

Bearing in mind the fact that favorable attitudes towards organic food are key to maintaining longterm relationships with consumers, producers and distributors in this area should identify the key factors that influence their choice. Given the fact that an increasing number of transactions are performed through the website whose role is elaborated in detail in this paper, the websites that sell products of the organic origin should be designed to meet consumers' requirements in the best possible way. This paper contributes to the existing literature by analyzing the characteristics of the website in relation to attitudes as a two-dimensional concept. By breaking down the attitudes into the cognitive and affective components, website content creators in the field of organic food can identify the importance of both rational and emotional motives that guide consumers in the selection process, in which way the retailers who sell organic food online can attract a larger number of potential consumers and create loyal consumers as a source of long-term profitability as well.

The research has certain limitations, one of which relating to the sample representativeness. So, expanding the number of respondents would ensure the better applicability and generalization of the results. The disadvantage is, among other things, that the research study was only carried out inside the territories of two cities. The research study does not include some other variables that might be connected with website quality, such as website navigation. Whether attitudes towards the website have an impact on current behavior or not could also be investigated. It would be interesting to relate confidence in website quality (Duffy, 2017) and value for organic food users (Babin, Darden & Griffin, 1994) to attitudes and the purchase intention. During the next research phases, it would be worthwhile to include cultural specifics in order to examine whether there are statistically significant differences when analyzing the impact of the website on creating consumers' attitudes or not. As the web environment also carries a certain degree of risk for users (Mohd Sam & Hayati Tahir, 2009; Belanche et al, 2012), this variable should also be included in future analyses through mediation. In accordance with the results of the previous research that perceives website quality as a predictor of consumer loyalty (Bilgihan & Bujisic, 2015; Chen et al, 2017), whether the given relationships can be confirmed in the field of organic food sales or not could be done research in.

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REFERENCES

- Ahn, T., Ryu, S., & Han, I. (2007). The impact of Web quality and playfulness on user acceptance of online retailing. Information & Management, 44(3), 263-275. doi:10.1016/j. im.2006.12.008
- Aladwani, A. M., & Palvia, P. C. (2002). Developing and validating an instrument for measuring user-perceived web quality. *Information and Management*, 39(6), 467-476. doi:10.1016/S0378-7206(01)00113-6
- Alcántara-Pilar, J. M., Blanco-Encomienda, F. J., Armenski, T., & Del Barrio-García, S. (2018a). The antecedent role of *online* satisfaction, perceived risk *online*, and perceived *website* usability on the affect towards travel destinations. *Journal of Destination Marketing and Management*, 9, 20-35. doi:10.1016/j. jdmm.2017.09.005
- Alcántara-Pilar, J. M., Blanco-Encomienda, F. J., Rodruguez Lopez, M. E., & Del Barrio-García, S. (2018b). Enhancing consumer attitudes toward a *website* as a contributing factor in business success. *Tourism & Management Studies*, 14(1), 108-116. doi:10.18089/tms.2018.14109
- Ashraf, M. A., Joarder, M. H. R., & Ratan, S. R. A. (2019). Consumers' anti-consumption behavior toward organic food purchase: an analysis using SEM. *British Food Journal*, 121(1), 104-122. doi:10.1108/BFJ-02-2018-0072
- Babin, B. J., Darden, W. R., & Griffin, M. (1994). Work and/or fun: Measuring hedonic and utilitarian shopping value. *Journal* of Consumer Research, 20(4), 644-656. doi:10.1086/209376
- Bai, B., Law, R., & Wen, I. (2008). The impact of *website* quality on customer satisfaction and purchase intentions: Evidence from Chinese *online* visitors. *International Journal* of *Hospitality Management*, 27(3), 391-402. doi:10.1016/j. ijhm.2007.10.008
- Basha, M. B., & Lal, D. (2019). Indian consumers' attitudes towards purchasing organically produced foods: An empirical study. *Journal of Cleaner Production*, 215(3), 99-111. doi:10.1016/j.jclepro.2018.12.098
- Basha, M. B., Mason, C., Shamsudin, M. F., Hussain, H. I., & Salem, M. A. (2015). Consumers attitude towards organic food. *Procedia Economics and Finance*, 31, 444-452. doi:10.1016/ S2212-5671(15)01219-8

- Belanche, D., Casalo', L. V., & Guinali'u, M. (2012). Website usability, consumer satisfaction and the intention to use a website: The moderating effect of perceived risk. Journal of Retailing and Consumer Services, 19(1), 124-132. doi:10.1016/j. jretconser.2011.11.001
- Bilgihan, A., & Bujisic, M. (2015). The effect of website features in online relationship marketing: A case of online hotel booking. Electronic Commerce Research and Applications, 14(4), 222-232. doi:10.1016/j.elerap.2014.09.001
- Bufquin, D., Park, J. Y., Back, R. M., Nutta, M. W. W., & Zhang, T. (2020). Effects of hotel *website* photographs and length of textual descriptions on viewers'emotions and behavioral intentions. *International Journal of Hospitality Management*, 87, 102378. doi:10.1016/j.ijhm.2019.102378
- Çabuk, S., Tanrikulu, C., & Gelibolu, L. (2014). Understanding organic food consumption: Attitude as a mediator. *International Journal of Consumer Studies*, 38(4), 337-345. doi:10.1111/ijcs.12094
- Cao, M., Zhang, Q., & Seydel, J. (2005). B2C e-commerce web site quality: an empirical examination. *Industrial Management and Data Systems*, 105(5), 645-661. doi:10.1108/02635570510600000
- Chan, R. Y. K. (2001). Determinants of Chinese consumers green purchase behavior. *Psychology & Marketing*, 18(4), 389-413. doi:10.1002/mar.1013
- Chen, H. S., Phelan, K. V., & Chang, H. J. (2016). The hunt for online hotel Deals: How online travelers' cognition and affection influence their booking intentions. Journal of Quality Assurance in Hospitality & Tourism, 17(3), 333-350. doi:10.1080/1528008X.2015.1077186
- Chen, J., Lobo, A., & Rajendran, N. (2014). Drivers of organic food purchase intentions in mainland China-evaluating potential customers' attitudes, demographics and segmentation. *International Journal of Consumer Studies*, 38(4), 346-356. doi:10.1111/ijcs.12095
- Chen, M. F. (2009). Attitude toward organic foods among Taiwanese as related to health consciousness, environmental attitudes, and the mediating effects of a healthy lifestyle. *British Food Journal*, 111(2), 165-178. doi:10.1108/00070700910931986
- Chen, X., Huang, Q., & Davison, R. M. (2017). The role of website quality and social capital in building buyers' loyalty. *International Journal of Information Management*, 37(1), 1563-1574. doi:10.1016/j.ijinfomgt.2016.07.005

- Chung, N., Lee, H., Lee, J. S. & Koo, C. (2015). The influence of tourism website on tourists' behavior to determine destination selection: A case study of creative economy in Korea. *Technological Forecasting & Social Change*, 96, 130-143. doi:10.1016/j.techfore.2015.03.004
- Cirić, M. R., Ilić, D. S., Ignjatijević, S. D., & Brkanlić, S. D. (2020). Consumer behavior in *online* shopping organic food during the covid 19 pandemic in Serbia. *Food and Feed Research*, 62(2), 469-481. doi:10.5937/ffr47-28815
- Cirić, M., Ignjatijević, S., Ilić, D., Puvača, N., & Brkanlić, S. (2021). Analysis of factors that influenced consumers' decision to *online* shop organic food during Covid-19. *Acta Agriculturae Serbica*, 26(51), 11-18. doi:10.5937/AASer2151011C
- Dai, W., Arnulf, J. K., Iao, L., Wan, P., & Dai, H. (2019). Like or want? Gender differences in attitudes toward *online* shopping in China. *Psychology & Marketing*, 36(4), 354-362. doi:10.1002/mar.21183
- Dean, M., Raats, M. M., & Shepherd, R. (2008). Moral Concerns and Consumer Choice of Fresh and Processed Organic Foods. *Journal of Applied Social Psychology*, 38(8), 2088-2107. doi:10.1111/j.1559-1816.2008.00382.x
- Duffy, A. (2017). Trusting me, trusting you: Evaluating three forms of truston an information-rich consumer review *website*. *Journal of Consumer Behaviour*, *16*(3), 212-220. doi:10.1002/cb.1628
- Fernández-Uclés, D., Bernal-Jurado, E., Mozas-Moral, A., & Medina-Viruel, M. J. (2019). The importance of websites for organic agri-food producers. *Economic Research-Ekonomska Istraživanja*, 33(2), 1-14. doi:10.1080/1331677X.2019.1694426
- Fishbein, M., & Ajzen, I. (1975). Belief, attitude, intention and behavior: an introduction to theory and research. Boston, MA: Addison-Wesley.
- Grubor, A., Djokic, N., Djokic, I., & Kovac-Znidersic, R. (2015). Application of health and taste attitude scales in Serbia. *British Food Journal*, 117(2), 840-860. doi:10.1108/BFJ-11-2013-0330
- Hamzaoui Essoussi, L., & Zahaf, M. (2009). Exploring the decision-making process of Canadian organic food consumers: Motivations and trust issues. *Qualitative Market Research: An International Journal*, 12(4), 443-459. doi:10.1108/13522750910993347

- Hasanov, J., & Khalid, H. (2015). the impact of *website* quality on *online* purchase intention of organic food in Malaysia: A *WebQual* model approach. *Procedia Computer Science*, 72, 382-389. doi:10.1016/j.procs.2015.12.153
- Huizingh, E. (2000). The content and design of *web* sites: An empirical study. *Information & Management*, 37(3), 123-134. doi:10.1016/S0378-7206(99)00044-0
- Hwang, J., Yoon, Y. S., & Park, N. H. (2011). Structural effects of cognitive and affective responses to *web* advertisments, *website* and brand attitudes, and purchase intentions: The case of casual-dining restaurants. *International Journal* of *Hospitality Management*, 30(4), 897-907. doi:10.1016/j. ijhm.2011.01.011
- Janković-Milić, V., & Jovanović, S. (2019). The effects of applying statistical methods in global sustainable competitiveness index creation. *Teme*, 43(3), 807-824. doi:10.22190/TEME190617049J
- Jones, C., & Kim, S. (2010). Influences of retail brand trust, off-line patronage, clothing involvement and *website* quality on *online* apparel shopping intention. *International Journal of Consumer Studies*, 34(6), 627-637. doi:10.1111/j.1470-6431.2010.00871.x
- Kim, S., & Stoel, L. (2004). Apparel retailers: Website quality dimensions and satisfaction. Journal of Retailing and Consumer Services, 11(2), 109-117. doi:10.1016/S0969-6989(03)00010-9
- Le, V. H., Nguyen, H. T. T., Nguyen, N., & Pervan, S. (2020). Development and validation of a scale measuring hotel website service quality (HWebSQ). Tourism Management Perspectives, 35, 100697. doi:10.1016/j.tmp.2020.100697
- Lee, B. K., Hong, J. Y., & Lee, W. N. (2017). How attitude toward the *web* site influences consumer brand choice and confidence while shopping *online*. *Journal of Computer-Mediated Communication*, 9(2). doi:10.1111/j.1083-6101.2004. tb00282.x
- Lee, H. J., & Yun, Z. S. (2015). Consumers' perceptions of organic food attributes and cognitive and affective attitudes as determinants of their purchase intentions toward organic food. *Food Quality and Preference*, 39, 259-267. doi:10.1016/j.foodqual.2014.06.002

- Lin, J., Li, T., & Guo, J. (2021). Factors influencing consumers' continuous purchase intention on fresh food e-commerce platforms: An organic foods-centric empirical investigation. *Electronic Commerce Research and Applications*, 50, 101103. doi:10.1016/j.elerap.2021.101103
- Luna-Nevarez, C., & Hyman, M. R. (2012). Common practice in destination website design. Journal of Destination Marketing & Management, 1(1), 94-106. doi:10.1016/j.jdmm.2012.08.002
- Maričić, B. (2011). Ponašanje potrošača. Beograd, RS: Ekonomski fakultet Univerziteta u Beogradu.
- Martinez-Sala, A. M., Monserrat-Gauchi, J., & Alemany-Martinez, D. (2020). User usable experience: A threedimensional approach on usability in tourism websites and a model for its evaluation. *Tourism Management Perspectives*, 33(3), 100579. doi:10.1016/j.tmp.2019.100579
- Mohd Sam, M. F., & Hayati Tahir, M. N. (2009). Website quality and online purchase intention of air ticket. International Journal of Basic & Applied Sciences, 9(10), 20-25.
- Moon, M. A., Khalid, M. J., Awan, H. M., Attiq, S., Rasool, H., & Kiran, M. (2017). Consumer's perceptions of *website's* utilitarian and hedonic attributes and *online* purchase intentions: A cognitive-affective attitude approach. *Spanish Journal of Marketing*, 21(2), 73-88. doi:10.1016/j.sjme.2017.07.001
- Nunnally, J. C. (1978). Introduction to Psychological Measurement. New York, NY: McGraw-Hill.
- Park, J., Stoel, L., & Lennon, S. J. (2008). Cognitive, affective and conative responses to visual simulation: The effects of rotation in *online* product presentation. *Journal of Consumer Behaviour*, 7(1), 72-87. doi:10.1002/cb.237
- Rodríguez-Bermúdez, R., Miranda, M., Orjales, I., Ginzo-Villamayor, M. J., Al-Soufi, W., & López-Alonso, M. (2020). Consumers' perception of and attitudes towards organic food in Galicia (Northern Spain). *International Journal of Consumer Studies*, 44(3), 206-219. doi:10.1111/ijcs.12557
- Sapic, S. (2017). The effects of cosmopolitanism and tradition on the evaluation and intentions of the users of fast food restaurants. *Economic Horizons*, 19(2), 83-95. doi:10.5937/ ekonhor1702081S
- Sapic, S., Filipovic, J., & Dlacic, J. (2019). Consumption in fastfood restaurants in Croatia and Serbia. *British Food Journal*, 121(8), 1715-1729. doi:10.1108/BFJ-04-2018-0264

- Tariq, A., Wang, C., Tanveer, Y., Akram, U., & Akram, Z. (2019). Organic food consumerism through social commerce in China. Asia Pacific Journal of Marketing and Logistics, 31(1), 202-222. doi:10.1108/APJML-04-2018-0150
- Thøgersen, J., Dutra de Barcellos, M., Gattermann Perin, M., & Zhou, Y. (2015). Consumer buying motives and attitudes towards organic food in two emerging markets China and Brazil. *International Marketing Review*, 32(3/4), 389-413. doi:10.1108/IMR-06-2013-0123
- Thøgersen, J., Pedersen, S., Paternoga, M., Schwendel, E., & Aschemann-Witzel, J. (2017). How important is country of origin for organic food consumers? A review of the literature and suggestions for future research. *British Food Journal*, 119(3), 542-557. doi:10.1108/BFJ-09-2016-0406
- Wang, O., Somogyi, S., & Charlebois, S. (2020). Food choice in the e-commerce era. A comparison between businessto-consumer (B2C), online-to-offline (O2O) and new retail. British Food Journal, 122(4), 1215-1237. doi:10.1108/BFJ-09-2019-0682
- Yue, L., Liu, Y., & Wei, X. (2017). Influence of *online* product presentation on sonsumers' trust in organic food. A mediated moderation model. *British Food Journal*, 119(12), 2724-2739. doi:10.1108/BFJ-09-2016-0421
- Zhou, T., Lu, Y., & Wang, B. (2009). The relative importance of website design quality and service quality in determining consumers' online repurchase behavior. *Information Systems Management*, 26(4), 327-337. doi:10.1080/10580530903245663

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