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Original research paper

EXPLORING GENDER DIFFERENCES IN PERCEIVING ORGANIC PRODUCTS WEBSITE QUALITY: INSIGHTS FROM SERBIA

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Abstract: The purpose of this research is to investigate whether there is a difference in the valuation of quality organic product website components, including information quality, visual design, and technical adequacy, between men and women. Conducted in Serbia, the methodology comprises surveying 660 participants using a custom questionnaire and analyzing data through descriptive statistics and Chi-square tests. The findings indicate that women assign greater significance to all three aspects of organic product website quality compared to men. Notably, women prioritize information quality, whereas men favour product images. These results carry substantial implications for website developers targeting organic product markets. Addressing the preferences of female consumers is paramount, given their predominant role as the primary purchasers of organic products. Therefore, adapting website characteristics to meet the expectations of female consumers is crucial for maximizing online sales of organic products.

Key words: *online shopping, organic products, website quality, gender differences, consumer perception*

INTRODUCTION

Organic products have become increasingly popular among consumers worldwide in recent years due to heightened concerns for health, the environment, and sustainability (Brata et al., 2022). However, the COVID-19 pandemic has further accelerated the demand for organic products, leading producers to adapt to a rapidly growing market while maintaining the same standard of quality (Cachero-Martínez, 2020; Nunes, Madureira & Veiga, 2021; Śmiglak-Krajewska & Wojciechowska-Solis, 2021). Besides causing an intensive surge in demand for organic products, the pandemic has also brought about changes in sales channels. Before the pandemic, the Internet represented a negligible share of total organic product sales in most countries, including Serbia (Bryła, 2018; Cane, 2018; Dašić, Radosavac & Đervida 2019; Hasanov & Khalid, 2015). Therefore, studies on consumer behaviour in online purchasing of organic products before the pandemic were negligible, and research addressing the impact of gender on consumer perceptions in the online environment in Serbia has not been conducted. However, exceptions were observed in China, India, and Indonesia, where a noticeable increase in online sales of organic products was evident even before the pandemic (Hasan &

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Suciarto, 2020; Mohanraj, Sureshkumar & Jaganathan, 2019; Wanmei, 2018). During the pandemic, there was a significant rise in online sales of organic products both globally and in Serbia, as a response to mobility restrictions and the need for a safer way to purchase food (Ćirić, Ilić, Ignjatijević & Brkanlić et al., 2020; Lin, Li, & Guo, 2021; Mitić & Čolović, 2023; Śmiglak-Krajewska & Wojciechowska-Solis, 2021). In China, the number of active users on major fresh food e-commerce platforms doubled during the pandemic, while the average daily number of orders saw a significant increase. However, the owners of online platforms for selling fresh food in China are facing significant competition, the decline of smaller players, and the dominance of larger ones, demanding innovative marketing strategies and adaptation of online platforms and products to customer preferences (Lin, Li & Guo, 2021). In Serbia, there was a 66% increase in online sales of organic products during the pandemic (Ćirić et al., 2020). However, internet sales of organic products are still less prevalent compared to other channels in Serbia, consistent with reports that only a few online stores are selling organic food in the country (Kocić, Šapić & Sofronijević, 2022).

Nevertheless, it is essential to note that websites are not only used for online selling organic products but also play a significant role in promoting and informing consumers about organic products and where to buy them, consistent with research findings (Ćirić & Ilić, 2022). Considering all the above, the importance of websites is increasingly evident both globally and in Serbia for promoting and selling organic food. Following the examples of developed countries like China, producers and sellers of organic products in Serbia must enhance online sales and promotion of organic products. The perception of website quality for organic products undoubtedly influences user attitude, trust and purchase intentions (Kocić et al., 2022; Shaouf & Lu, 2022; Tariq, Wang, Tanveer, Akram & Akram, 2019). Therefore, it is crucial to focus on website components that affect user perceptions of website quality.

Quality of service is a rather ambiguous and subjective term. Quality is similar to beauty, which lies in the eyes of the beholder: everyone perceives it uniquely (Ljubojević & Ćirić, 2017). When it comes to website quality, analysis of previous research also indicates that website quality is, to a large extent, an undefined concept, and authors describe it differently. In the early studies of website quality, authors defined it descriptively without identifying specific quality dimensions, without focusing on the most important factors, and without measurement instruments (Aladwani & Palvia, 2002). For example, Wan (2000) considers website quality to be assessed based on information, friendliness, responsiveness, and reliability. Liu and Arnett (2000) list factors of quality such as accuracy, completeness, relevancy, security, reliability, customization, interactivity, ease of use, speed, search functionality, and organization. Misic and Johnson (1999) point out that website quality can be evaluated through criteria such as finding contact information, finding the main page, speed, uniqueness of functionality, ease of navigation, counter, currency, wording, and colour and style. Aladwani and Palvia (2002) were among the first authors to identify four dimensions of website quality: specific content, content quality, appearance, and technical adequacy and proposed a questionnaire with 25 questions for their measurement.

In recent studies such as Shaouf and Lu (2022), three dimensions of website quality are highlighted: website visual design, website information design, and website navigation design. Hasanov and Khalid (2015), in their work examining the impact of website quality on the intention to purchase organic products online, present dimensions of website quality through the WebQual model (usability, information quality, and service interaction quality). Authors Kocić et al. (2022), who researched the influence of website quality on consumer attitudes towards organic food in Serbia, list usability, website design, and information quality as dimensions of website quality. Although at first glance, terms in recent studies describing dimensions of website quality may differ, a deeper analysis can still extract common dimensions that are essentially consistent with previous research. Thus, we have concluded that the website quality of organic products can be assessed through three dimensions (information quality, visual design quality, and technical adequacy).

The specific nature of organic products, which are not traditionally purchased, requires online retailers to adequately present all the product characteristics, with visual support and detailed

descriptions (Kocić et al., 2022). For potential organic food consumers, it is essential that the information on the website is clear, updated, and reliable (Chen, Lobo & Rajendran, 2014). Since online transactions involve significant information about products, services, payment methods, delivery procedures, and vendors, such distribution of information increases trust in online shopping and influences consumers' purchase intentions (Tariq et al., 2019).

For a website, visual design is akin to the design of a store's service environment where products or services are sold. In the online environment, consumers assess service quality based on the site's interface design and are more likely to visit and buy more from better-designed websites. Website design influences consumers' initial attitudes, their shopping behaviour, and later attracts online customers (Hasan, 2016). Presentation of products through displays, videos, and 3D images can thoroughly depict the relevant characteristics of organic food and its production process, which can positively impact consumers' intention to purchase organic food (Yue, Liu & Wei, 2017).

The technical characteristics of the site are essential in assessing site quality and consumer satisfaction. The website must be secure (have an SSL certificate and similar), have good navigation, easy data search, fast loading, good links, and interactive features (Aladwani & Palvia, 2002). If a website is not usable, i.e., if its features or design confuse or frustrate users in their attempt to perform desired operations, many users will leave the website and look for the product on another site that better meets their needs (Vila & Kuster, 2012). McKinney, Yoon and Zahedi (2002) also point out that regardless of how high-quality the content information on the site is, a consumer who has difficulty in searching and obtaining the necessary information is very likely to leave the site.

For an organic products website to truly serve its purpose, it's essential to tailor all aspects of quality to fit the target audience. Since gender plays a fundamental role in defining this audience, it's vital to ascertain whether perceptions of website quality differ based on gender. Numerous studies have highlighted disparities between genders, influenced by biological, cognitive, behavioural, or social factors (Costa, Terracciano & McCrae, 2001; Gefen & Ridings, 2005; Riedl, Hubert, & Kenning, 2010). Consequently, extensive research has underscored distinctions in how men and women perceive websites (Gefen, Geri & Paravastu, 2007; Riedl et al., 2010; Shaouf & Lu, 2022). However, some studies have found no significant disparities in website evaluations between genders (Afshardost, Farahmandian & SadiqEshaghi, 2013). Moreover, through three studies (Nissen & Krampe, 2021), researchers have explored both conscious and unconscious evaluations of e-commerce websites. While self-assessment results from the initial studies showed no significant differences between men and women in assessing e-commerce sites, neural findings suggest variations in how men and women perceive these sites, influenced by unconscious factors. As prior research has primarily relied on self-assessment, omitting unconscious factors, this could elucidate the inconsistent findings of gender-specific studies. Additionally, Cyr and Head (2013) demonstrated in their research that website preferences vary across countries depending on gender. There are fewer differences between men and women in societies perceived as more feminine, while more significant differences occur in societies perceived as more masculine. According to Hofstede (1984), masculinity refers to societies that value competitiveness or independence, while femininity refers to societal values such as gentleness or compassion. In masculine cultures, values emphasize work goals such as material success and challenging work. Work goals include a focus on recognition, challenge, advancement, earning, and achievement defined by earnings. Alternatively, in feminine cultures, values are focused on quality of life, nurturing, and modesty. Quality of life work goals emphasize a supportive and friendly work environment, cooperation, job security, and achievement determined with respect to work relationships and human contacts.

Given the variations in previous research and the scarcity of similar studies in the realm of websites promoting and selling organic products, our study aims to determine whether perceptions of organic product website quality differ based on gender. Considering numerous studies in both Serbia and globally (Aertsens et al., 2009; Grubor & Djokic, 2016; Kranjac, Vapa-Tankosić & Knežević, 2017; Mitić & Čolović, 2022; Stojić & Dimitrijević, 2020; Ureña, Bernabéu & Olmeda, 2008; Ćirić et al., 2020),

demonstrating women as the primary purchasers of organic products, our research aims to shed light on which aspects of website quality are most crucial for women, whether these aspects differ from those valued by men, and which aspects require particular attention in developing organic product websites. Based on the literature review and in line with the research aim, the main and auxiliary hypotheses of the study have been defined.

Primary hypothesis: Perceptions of organic product website quality vary depending on consumer gender.

Auxiliary hypotheses:

1. Women demonstrate a higher level of interest in all aspects of organic product website quality compared to men.
2. Specific components of website quality are prioritized differently by men and women.

MATERIALS AND METHODS

The survey was conducted via a questionnaire on a randomly selected sample of respondents in Serbia in September 2023. Respondents were chosen using the "snowball" method, where the questionnaire link was sent to the email addresses of numerous respondents, requesting them to forward it. The participants were sent an explanation via email stating that their participation in the scientific research is voluntary, the research is anonymous, and all data are collected solely for scientific purposes and cannot be used for other purposes. Since the survey was conducted via Google Forms sent through email, the anonymity of participants' responses was ensured. This approach aimed to maximize respondent inclusion in the research.

Additionally, this selection method was deemed suitable given that respondents needed internet access and experience with website usage. The initial screening question in the questionnaire asked if respondents had utilized any websites for information and/or purchasing organic products. This method yielded 660 completed questionnaires, which is considered a representative sample size, aligning with similar studies globally (Shaouf & Lu, 2022), and domestically (Kocić, Šapić & Sofronijević, 2022).

The sample comprised 297 male and 363 female respondents. The age distribution of respondents was as follows: 208 respondents were under 24; 264 were between 25 and 40; 164 were between 41 and 60; and 24 were over 61. The majority of respondents belong to Generation Z and Generation Y, making it suitable for analysis as members of these generations are the most frequent users of websites for information and shopping. Regarding education, 264 respondents had a high school education; 334 had a bachelor's degree, and 62 had a master's or PhD. The sample structure by gender, age, and education is suitable for this research.

For the research, a standardized questionnaire wasn't employed; instead, a specific questionnaire was crafted to suit the research's objectives. Alongside basic demographic inquiries, the questionnaire contained 27 questions, divided into three sections to gauge respondents' perceptions of the quality of organic product websites using a Likert scale of 1 to 5. Website quality was assessed based on its quality informational, visual design, and technical adequacy. The questionnaire drew upon Aladwani and Palvia (2002) user-perceived web quality questionnaire, supplemented by insights from research by Rodriguez Santos and Blanco (2011), Shaouf and Lu (2022), and Kocić et al. (2022), to best meet the research's objectives.

Data analysis utilized the SPSS program for statistical processing, employing descriptive statistics and Pearson Chi-Square to delve into the phenomena.

RESULTS AND DISCUSSION

Table 1 displays the arithmetic means of ratings through which the respondents evaluated the importance of individual items assessing the quality of information on the website of organic products. Respondents' ratings are broken down by gender. Additionally, the table presents Pearson's Chi-Square for each assessed item to determine whether there are statistically significant differences in ratings depending on gender. Based on the obtained results, it was observed that for seven out of nine assessed items, there are statistically significant differences between women and men. This observation aligns with the findings of the research (Gefen et al., 2007), which highlight distinctions in information processing between men and women, impacting various domains of information and communication technologies and consequently influencing online shopping behaviours. Furthermore, it was noticed that women gave higher ratings for all assessed items.

Table 1.
Importance ratings of information quality on the organic products website, broken down by gender

Information quality on the website	Gender	Arithmetic mean	Pearson Chi-Square
1. Product ingredients and raw materials information	Female	4.91	24.589*
	Male	4.58	Asymptotic Significance (2-sided) 0.000
2. Each product features a highlighted price	Female	4.86	28.645*
	Male	4.52	Asymptotic Significance (2-sided) 0.000
3. Delivery method information for online purchases, payment methods, and delivery times	Female	4.83	38.559*
	Male	4.32	Asymptotic Significance (2-sided) 0.000
4. Regularly updated information on the website	Female	4.80	17.154*
	Male	4.50	Asymptotic Significance (2-sided) 0.000
5. Contact information (email, phone, sales locations)	Female	4.80	31.894*
	Male	4.25	Asymptotic Significance (2-sided) 0.000
6. Complaint and return information	Female	4.52	23.068*
	Male	4.02	Asymptotic Significance (2-sided) 0.000
7. Information on quality certificates and protected geographical origin	Female	4.47	0.165
	Male	4.45	Asymptotic Significance (2-sided) 0.921
8. Information about the production process and the land on which the products are produced	Female	4.14	15.443*
	Male	3.80	Asymptotic Significance (2-sided) 0.004
9. Information about tasting locations	Female	3.22	7.102
	Male	3.04	Asymptotic Significance (2-sided) 0.131

** Statistically significant*

This suggests that the quality of information on the website is more important to women than to men.

This result contradicts a study by Shaouf and Lu (2022) that demonstrated men value the quality of information on the website more than women. However, this observation is attributable to the distinctive characteristics of organic products and the trend wherein women, who tend to purchase organic items more frequently than men, possess a deeper understanding of such products. This trend aligns with findings from studies such as Fatha and Ayoubi (2023) and Ureña et al. (2008), underscoring their heightened demand for quality information. Therefore, when women visit a website to gather information or make online purchases of organic products, they come with higher expectations regarding the quality of information. Since consumer satisfaction results from expectations and perceived quality (Ljubojević & Ćirić, 2017), the quality of information must be optimal to achieve user satisfaction with the website. Based on the obtained results, we see that women rated eight out of nine assessed items with a score above 4, and even five items with a score above 4.80, indicating that it is very important for women to receive a larger volume of quality information.

This is consistent with previous cognitive research by Meyers-Levy (1988), who analyzed differences in behaviour between men and women in information search, concluding that men tend to make decisions faster relying on their own opinions and a limited set of information, while women process information comprehensively, using multiple sources of information from their environment.

In Table 2, the arithmetic means of ratings provided by respondents evaluating the importance of various items assessing the visual design of the website for organic products are presented. Respondents' ratings are broken down by gender. Additionally, Pearson's Chi-Square for each assessed item is shown in the website's visual design based on gender.The results presented in Table 2 indicate a statistically significant difference between men and women in how they assess the importance of the

Table 2.
Importance ratings of the organic products website visual design, broken down by gender

Website visual design	Gender	Arithmetic mean	Pearson Chi-Square
1. Product images	Female	4.86	16.450*
	Male	4.62	Asymptotic Significance (2-sided) 0.000
2. Products on discount and promotion visibly marked with colors	Female	4.78	27.131*
	Male	4.32	Asymptotic Significance (2-sided) 0.000
3. Attractive and harmoniously coordinated color schemes for backgrounds, text, and images	Female	4.61	40.185*
	Male	4.14	Asymptotic Significance (2-sided) 0.000
4. Product videos	Female	4.60	29.259*
	Male	3.98	Asymptotic Significance (2-sided) 0.000
5. Font type and size used for displaying information on the website	Female	4.36	7.469
	Male	4.17	Asymptotic Significance (2-sided) 0.113
6. Manufacturer's logo design	Female	3.83	21.452*
	Male	3.60	Asymptotic Significance (2-sided) 0.000
7. Images of production facilities	Female	3.70	14.471*
	Male	3.39	Asymptotic Significance (2-sided) 0.006
8. Visually highlighted best-selling product	Female	3.66	4.994
	Male	3.73	Asymptotic Significance (2-sided) 0.288
9. Images of manufacturers and employees	Female	2.97	32.170*
	Male	3.48	Asymptotic Significance (2-sided) 0.000

** Statistically significant*

visual design of the website of organic products. Similarly to the assessment of information quality on the website, women also give higher ratings for website design compared to men. This result differs from the research by Shaouf & Lu (2022), which found no difference between men and women in terms of the perception of website visual design. It also differs from the study by Tuch, Bargas-Avila, and Opwis (2010), which found that aesthetic aspects such as colours, font sizes, and styles influence men's opinions more than women's. However, the obtained results are consistent with the research by Simon & Peppas (2005), which suggests that women tend to prefer media-rich websites compared to men. It is also consistent with the finding that the overall visual design of websites is more important for women than for men (Pengnate & Sarathy, 2017). These differences in previous research can be best explained by the fact that respondents' perceptions depend on the sociocultural context of the countries where the research was conducted (Cyr & Head, 2013), the chosen research method (Nissen & Krampe, 2021), and the specific purpose of the website (Huang & Mou, 2021). The value of the results of this research is significant because it fills a gap in previous research and indicates that for websites of organic products, in Serbia, the visual design of the website is more important for women than for men. Interestingly, if the ratings given by men for information quality and the ratings given for visual design are compared, the highest rating was given for the visual design element, specifically for product images (4.62). Therefore, although both information quality and visual design are more important to women than to men, the difference between men and women lies in the fact that women give the highest rating for product ingredients and raw materials information, while men give the highest rating for product images. This finding is consistent with Goodrich (2014), who found that women focus more on text on the website, while men focus on images. Thus, product images are very important in the visual design of the website for both

genders. For the perception of the overall quality of visual design by women to be high, attention should also be paid to products on discount and promotion visibly marked with colours, attractive and harmoniously coordinated colour schemes for backgrounds, text, images, and product videos.

In Table 3, the arithmetic means of ratings provided by respondents assessing the importance of individual items evaluating the technical adequacy of the website for organic products are presented. Respondents' ratings are disaggregated by gender. Additionally, Pearson's Chi-Square for each assessed item is shown in the table to determine whether there are statistically significant differences in ratings depending on gender.

In Table 3, the results presented in Table 3 indicate that a statistically significant difference exists between men and women regarding the technical adequacy of the website. For eight out of nine assessed items, women gave higher ratings regarding the importance of specific technical functionalities. This result is consistent with the findings reported by Kim, Lehto and Morrison (2007), who found that women have a greater need for user-friendly functionalities on websites. It is also consistent with the study by Amin, Rezaei and Tavana (2015), which demonstrated that perceived ease of use is much more important and has a greater impact on women than on men. The results align with the research by Shaouf and Lu (2022), who observed that a Business-to-Consumer website with effective navigation elements has a higher ability to influence and attract female shoppers than males. Garbarino and Strahilevitz (2004) have shown that women are less comfortable with the use of technology than men. Therefore, for a positive perception of the quality of the website for organic products, it is essential to consider the technical adequacy of the website. Our results primarily indicate the importance of Rapid website loading times, Website Security, Seamless navigation through the website's menu, and Keyword search functionality on the website.

Table 3.
Importance ratings of the website technical adequacy, broken down by gender

Website technical adequacy	Gender	Arithmetic mean	Pearson Chi-Square
1. Rapid website loading times	Female	4.78	34.929*
	Male	4.29	Asymptotic Significance (2-sided) 0.000
2. Website Security	Female	4.72	14.036*
	Male	4.46	Asymptotic Significance (2-sided) 0.003
3. Seamless navigation through the website's menu	Female	4.70	48.605*
	Male	4.14	Asymptotic Significance (2-sided) 0.000
4. Keyword search functionality on the website	Female	4.46	28.121*
	Male	4.20	Asymptotic Significance (2-sided) 0.000
5. Icons linking to the manufacturer's Instagram profile and Facebook page	Female	3.91	30.981*
	Male	3.41	Asymptotic Significance (2-sided) 0.000
6. Inclusion of links to internal and external pages on the website	Female	3.77	28.035*
	Male	3.35	Asymptotic Significance (2-sided) 0.000
7. Language switcher allowing toggling between Serbian and English	Female	3.67	20.915*
	Male	4.25	Asymptotic Significance (2-sided) 0.000
8. Manufacturer's location showcased on Google Maps	Female	4.20	10.777*
	Male	3.96	Asymptotic Significance (2-sided) 0.029
9. Opportunity to enroll in the loyalty program via an online form	Female	3.38	7.413
	Male	3.11	Asymptotic Significance (2-sided) 0.116

* *Statistically significant*

CONCLUSIONS

Given the recent emergence of online sales of organic products, this study addresses crucial questions aimed at filling gaps in scientific literature and assisting organic food producers, web developers, and marketing experts. No prior research, either in Serbia or globally has explored how gender influences perceptions of organic product website quality. Our findings reveal significant gender-based differences in website quality perception. Women prioritize in-formation quality, visual design, and technical adequacy of websites more than men, with information quality being paramount for them. In contrast to women, men gave the highest rating for product images.

The obtained results, besides their scientific value, also have societal implications, indicating that creating websites for promoting and selling organic products must be approached with great care to ensure a positive user experience. Considering that women have been identified as the primary consumers of organic products in numerous previous studies when creating websites, it must be taken into account that they have much higher expectations regarding all three dimensions of website quality compared to men. Therefore, they will be much less tolerant of errors in website creation, especially concerning information critical to them. Consequently, having a substantial amount of quality information on the website is essential. Additionally, this information must be supplemented with appropriate product images, and the website loading speed and navigation must enable a pleasant user experience. Given that online organic food sales in Serbia and many other countries are still in the early stages of development, improving all dimensions of website quality to meet the expectations of the target consumer group (specifically women) can contribute to increased sales. Meanwhile, in countries with more advanced online sales of organic food, such as China and India, this improvement can lead to a greater competitive advantage.

The limitations of this research lie in the fact that it was conducted solely in Serbia. Therefore, a recommendation for future research is to expand the sample to include multiple countries to analyze different cultural influences on the perceptions of women and men. Furthermore, modern methods such as neuromarketing research can be applied to obtain more precise data and measurements of both conscious and subconscious reactions of men and women to various dimensions of website quality.

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REFERENCES

Aertsens, J., Verbeke, W., Mondelaers, K., & Van Huylenbroeck, G. (2009). Personal determinants of organic food consumption: A review. *British Food Journal*, *111*(10), 1140–1167. https://doi.org/10.1108/00070700910992961

Afshardost, M., Farahmandian, S. & SadiqEshaghi, S. (2013). Linking trust, perceived website quality, privacy protection, gender and online purchase intentions. *IOSR Journal of Business and Management, 13*(4), 63-72.

Aladwani, A., & Palvia, P. (2002). Developing and validating an instrument for measuring user-perceived *web* quality. *Information and Management*, *39*(6), 467-476. https://doi.org/10.1016/S0378-7206(01)00113-6

Amin, M., Rezaei, S., & Tavana, F. (2015). Gender differences and consumer's repurchase intention: The impact of trust propensity, usefulness and ease of use for implication of innovative online retail. *International Journal of Innovation and Learning*, *17*(2), 217–233. https://doi.org/10.1504/IJIL.2015.067409

Brata, A. M., Chereji, A. I., Brata, V. D., Morna, A. A., Tirpe, O. P., Popa, A., Arion, F. H., Banszaki, L. I., Chereji, I., Popa, D., & Muresan, I. C. (2022). Consumers' perception towards organic products before and after the COVID-19 pandemic: a case study in Bihor county, Romania. *International Journal of Environmental Research and Public Health*, *19*(19), 12712. https://doi.org/10.3390/ijerph191912712

Bryła, P. (2018). Organic food online shopping in Poland. *British Food Journal, 120*(5), 1015–1027. https://doi.org/10.1108/BFJ-09-2017-0517

Cachero-Martínez, S. (2020). Consumer behaviour towards organic products: The moderating role of environmental concern. *Journal of Risk and Financial Management*, *13*(12), 330. https://doi.org/10.3390/jrfm13120330

Cane, P. (2018). Do food recalls have a greater effect on consumers' trust when they involve healthy, organic and protected designation of origin foods and, if yes, why? *Journal of Agronomy Technology and Engineering Management, 1*(1), 99–109.

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. https://doi.org/10.1111/ijcs.12095

Ćirić, M. R., Ilić, D. S., Ignjatijević, S. D., & Brkanlić, S. D. (2020). Consumer behaviour in online shopping organic food during the Covid-19 pandemic in Serbia. *Food and Feed Research*, *47*(2), 149-158.

Ćirić, M., & Ilić, D. (2022). Consumer adoption of internet as a marketing channel for traditional food products. In *Proceedings of the 89th International Scientific Conference on Economic and Social Development – "Economical, Agricultural and Legal Frameworks of Sustainable Development"* (pp. 215-224). Novi Sad, Serbia.

Costa, P. T., Terracciano, A., & McCrae, R. R. (2001). Gender differences in personality traits across cultures: robust and surprising findings. *Journal of Personality and Social Psychology*, *81*(2), 322-331. https://doi.org/10.1037/0022-3514.81.2.322

Cyr, D., & Head, M. (2013). Website design in an international context: The role of gender in masculine versus feminine oriented countries. *Computers in Human Behavior, 29*(4), 1358-1367. https://doi.org/10.1016/j.chb.2013.01.050

Dašić, G., Radosavac, A., Knežević, D., & Đervida, R. (2019). Preferences of customers and improvement of production and sales of organic products in Serbia. *Ekonomika poljoprivrede, 66*(1), 127–142. https://doi.org/10.5937/ekoPolj1901127D

Fatha, L., & Ayoubi, R. (2023). A revisit to the role of gender, age, subjective and objective knowledge in consumers' attitudes towards organic food. *Journal of Strategic Marketing*, *31*(3), 499-515. https://doi.org/10.1080/0965254X.2021.1939405

Garbarino, E., & Strahilevitz, M. (2004). Gender differences in the perceived risk of buying online and the effects of receiving asite recommendation. *Journal of Business Research, 57*(7), 768–775. https://doi.org/10.1016/S0148-2963(02)00363-6

Gefen, D., & Ridings, C. M. (2005). If you spoke as she does, sir, instead of the way you do: A sociolinguistics perspective of gender differences in virtual communities. *ACM SIGMIS Database: The DATABASE for Advances in Information Systems*, *36*(2), 78-92. https://doi.org/10.1145/1066149.1066156

Gefen, D., Geri, N., & Paravastu, N. (2007). Vive la différence: The cross-culture differences within us. *International Journal of e-Collaboration, 3*(3), 1–15. https://doi.org/10.4018/jec.2007070101

Goodrich, K. (2014). The gender gap: Brain-processing differences between the sexes shape attitudes about online advertising. *Journal of Advertising Research*, *54*(1), 32–43.

Grubor, A., & Djokic, N. (2016). Organic food consumer profile in the Republic of Serbia. *British Food Journal*, *118*(1), 164–182. https://doi.org/10.1108/BFJ-06-2015-0225

Hasan, B. (2016). Perceived irritation in online shopping: the impact of website design characteristics. *Computers in Human Behavior*, *54*(3), 224–230. https://doi.org/10.1016/j.chb.2015.07.056

Hasan, H. N., & Suciarto, S. (2020). The influence of attitude, subjective norm and perceived behavioral control towards organic food purchase intention. *JMBE, 1*(2), 132-153. https://doi.org/10.24167/jmbe.v1i2.2260

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. https://doi.org/10.1016/j.procs.2015.12.153

Hofstede, G. H. (1984). Culture's consequences, international differences in workrelated values . Beverly Hills, CA: Sage.

Huang, Z. & Mou, J. (2021). Gender differences in user perception of usability and performance of online travel agency websites. *Technology in Society, 66*, 101671. https://doi.org/10.1016/j.techsoc.2021.101671

Kim, D., Lehto, X. Y., & Morrison, A. M. (2007). Gender differences in online travel information search: Implications for marketing communications on the internet. *Tourism Management, 28*(2), 423-433. https://doi.org/10.1016/j.tourman.2006.04.001

Kocić, M., Šapić, S., & Sofronijević, K. (2022). The influence of website quality on cognitive and affective attitudes towards organic food. *Ekonomski horizonti*, *24*(3), 313-327.

Kranjac, M., Vapa-Tankosic, J., & Knezevic, M. (2017). Profile of organic food consumers. *Ekonomika poljoprivrede*, *64*(2), 497–514. https://doi.org/10.5937/ekoPolj1702497K

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. https://doi.org/10.1016/j.elerap.2021.101103

Liu, C., & Arnett, K. (2000). Exploring the factors associated with web site success in the context of electronic commerce. *Information and Management, 38*(1), 23–33. https://doi.org/10.1016/S0378-7206(00)00049-5

Ljubojević, Č., & Ćirić, M. (2017). *Marketing usluga*. Novi Sad: Fakultet za ekonomiju i inženjerski menadžment.

McKinney, V., Yoon, K., & Zahedi, F. M. (2002). The measurement of Web-customer satisfaction: An expectation and disconfirmation approach. *Information Systems Research*, *13*(3), 296–315. https://doi.org/10.1287/isre.13.3.296.76

Meyers-Levy, J. (1989). Gender differences in information processing: A selective interpretation. In P. Cafferata, & A. Tybout (Eds.), Cognitive and affective responses to advertising (pp. 219–260). Lexington, MA: Lexington Books.

Misic, M., & Johnson, K. (1999). Benchmarking: a tool for web site evaluation and improvement. *Internet Research, 9*(5), 383–392. https://doi.org/10.1108/10662249910297787

Mitić, V., & Čolović, M. (2022). The main demographic characteristics of customers and the frequency of purchases organic food. *Ekonomika poljoprivrede*, *69*(2), 349-364. https://doi.org/10.5937/ekoPolj2202349M

Mitić, V., & Čolović, M. (2023). The impact of the pandemic Covid-19 on the frequency of shopping and online sale of organic food among consumers of the former Yugoslavia. *Food and Feed Research, 50*(1), 25-34.

Mohanraj, M., Sureshkumar, J., & Jaganathan, A.T. (2019). Customer preference towards online shop-

ping of organic food products in Coimbatore district. *IJRTE, 8*(3), 6381–6384. https://doi.org/10.35940/ijrte.C5452.098319

Nissen, A., & Krampe, C. (2021). Why he buys it and she doesn't – Exploring self-reported and neural gender differences in the perception of eCommerce websites. *Computers in Human Behavior, 121*, 106809. https://doi.org/10.1016/j.chb.2021.106809

Nunes, F., Madureira, T., & Veiga, J. (2021). The organic food choice pattern: are organic consumers becoming more alike? *Foods*, *10*(5), 983. https://doi.org/10.3390/foods10050983

Pengnate, S. F., & Sarathy, R. (2017). An experimental investigation of the influence of website emotional design features on trust in unfamiliar online vendors. *Computers in Human Behavior, 67*, 49–60. https://doi.org/10.1016/j.chb.2016.10.018

Riedl, R., Hubert, M. & Kenning, P. (2010). Are There Neural Gender Differences in Online Trust? An fMRI Study on the Perceived Trustworthiness of eBay Offers. *MIS Quarterly*, *34*(2) 397-428. https://doi.org/10.2307/20721434

Rodriguez Santos, C., & Blanco, M. (2011). The Internet as an alternative distribution and communication channel for SMEs producing quality agro-food products. *aDResearch ESIC International Journal of Communication Research, 3*(1), 50-63.

Shaouf , A., & Lu, K. (2022). Establishing trust in e-commerce through website design elements: The moderating role of gender. *International Journal of Technology and Human Interaction (IJTHI)*, *18*(1), 1-24.

Simon, S. J., & Peppas, S. C. (2005). Attitudes towards product website design: A study of the effects of gender. *Journal of Marketing Communications, 11*, 129–144. https://doi. org/10.1080/1352726042000286507

Śmiglak-Krajewska, M., & Wojciechowska-Solis, J. (2021). Consumer versus organic products in the COVID-19 pandemic: Opportunities and barriers to market development. *Energies*, *14*(17), 5566. https://doi.org/10.3390/en14175566

Stojić, V., & Dimitrijević, M. (2020). Consumers' intentions to use of organically produced food in the Šumadija region. *Ekonomika poljoprivrede*, *67*(1), 253–267.

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. https://doi.org/10.1108/APJML-04-2018-0150

Tuch, A. N., Bargas-Avila, J. A., & Opwis, K. (2010). Symmetry and aesthetics in website design: It's a man's business. *Computers in Human Behavior*, *26*(6), 1831–1837. https://doi.org/10.1016/j.chb.2010.07.016

Ureña, F., Bernabéu, R., & Olmeda, M. (2008). Women, men and organic food: Differences in their attitudes and willingness to pay. A Spanish case study. *International Journal of Consumer Studies, 32*(1), 18–26. https://doi.org/10.1111/j.1470-6431.2007.00637.x

Vila, N., & Kuster, I. (2012). The role of usability on stimulating SME's on line buying intention: An experiment based on a ficticius web site design. *Quality & Quantity*, *46*(1), 117–136. https://doi.org/10.1007/s11135-010-9332-x

Wan, A. (2000). Opportunities to enhance a commercial web site. *Information and Management, 38*(1), 15–21. https://doi.org/10.1016/S0378-7206(00)00048-3

Wanmei, C. (2018). Research on online shopping behavior of organic agricultural products based on demographic variables. *ECL, 7*(3), 47–54. https://doi.org/10.12677/ECL.2018.73007

Yue, L., Liu, Y., & Wei, X. (2017). Influence of online product presentation on consumers' trust in organic food: a mediated moderation model. *British Food Journal*, *119*(12), 2724–2739. https://doi.org/10.1108/BFJ-09-2016-0421

ISTRAŽIVANJE RAZLIKA U PERCEPCIJI KVALITETA VEB SAJTOVA ORGANSKIH PROIZVODA U ZAVISNOSTI OD POLA: UVIDI IZ SRBIJE

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Sažetak: Svrha ovog istraživanja jeste da se utvrdi da li muškarci i žene različito vrednuju kvalitet pojedinih komponenti veb sajtova organskih proizvoda, uključujući kvalitet informacija, vizuelni dizajn i tehničku adekvatnost. Istraživanje je sprovedeno u Srbiji. Metodologija obuhvata ispitivanje 660 učesnika korišćenjem prilagođenog upitnika i analizu podataka putem deskriptivne statistike i Chi-kvadrat testa. Rezultati pokazuju da žene pridaju veći značaj za sva tri ispitivana aspekta kvaliteta veb sajtova organskih proizvoda u poređenju sa muškarcima. Posebno, žene daju prednost kvalitetu informacija, dok muškarci više vrednuju slike proizvoda. Ovi rezultati imaju značajne implikacije za razvojne inženjere veb sajtova koji targetiraju tržišta organskih proizvoda. Obraćanje pažnje na preferencije ženskih potrošača je od suštinskog značaja, s obzirom na njihovu vodeću ulogu kao glavnih kupaca organskih proizvoda. Stoga je prilagođavanje karakteristika veb sajtova kako bi se zadovoljila očekivanja ženskih potrošača ključno za maksimiziranje onlajn prodaje organskih proizvoda.

Ključne reči: *onlajn kupovina, organski proizvodi, kvalitet veb sajta, rodne razlike, percepcija potrošača*

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