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# UNDERSTANDING ONLINE SHOPPING INTENTION OF GENERATION Z IN SERBIA

Uticaj životnog stila generacije Z na prihvatanje onlajn  
kupovine u Srbiji

## Abstract

The development of information and communication technologies has influenced the lifestyle of consumers. Online shopping saves time and seemingly money, because it allows consumers to shop from home at any time 24/7/365. Today's consumers are online consumers, but the difference in generations indicates the need for consumers as such to be profiled and analyzed. The fact that 2020 is marked as the Corona year gives special importance to the analysis of online shopping intention. Measures to slow down the pandemic, among other things, were distancing, quarantine, isolation, so online shopping is becoming more convenient or the only possible option. The willingness of consumers to shop in a pandemic has accelerated the online shopping process in many countries and led to the creation of a new pattern of consumer behavior. The subject of this paper is Generation Z, which mostly follows the development of information and communication technologies. The aim of the research is to confirm the connection between the lifestyle of Generation Z, primarily students, as members of the dominant academic environment and online shopping. A well-structured questionnaire adopted from various previous studies was conducted through an online survey of 320 students across Serbia. Consumer lifestyle identification statements include activities, interests and opinions (AIO), where activities relate to a person's daily activities in terms of entertainment, leisure and shopping, interests relate to the importance a person has for fashion, food, recreation, media, and opinions focus on social issues, products, future, culture. The study uses a simple random sampling technique. The study performs a research factor analysis to isolate the factors that have emerged as bearers of consumer lifestyle characteristics.

**Keywords:** *Generation Z, lifestyle, online shopping*

## Sažetak

Razvoj informaciono-komunikacionih tehnologija (IKT) uticao je na životni stil potrošača. Onlajn kupovina štedi vreme i naizgled novac, jer omogućava potrošačima da kupuju od kuće u bilo koje vreme 24/7/365. Današnji potrošači su onlajn potrošači, ali razlika u generacijama ukazuje na potrebu da se potrošači kao takvi profiliraju i analiziraju. Činjenica da se 2020. godina obeležava kao korona godina daje poseban značaj analizi namere kupovine putem interneta. Mere za usporavanje pandemije, između ostalog, bile su distanciranje, karantin, izolacija, pa je onlajn kupovina postala sve zgodnija ili jedina moguća opcija. Spremnost potrošača da kupuju u pandemiji ubrzala je proces onlajn kupovine u mnogim zemljama i dovela do stvaranja novog obrasca ponašanja potrošača. Predmet ovog rada je generacija Z, koja najvećim delom prati razvoj informaciono-komunikacionih tehnologija. Cilj istraživanja je da se potvrdi povezanost životnog stila generacije Z, pre svega studenata, kao pripadnika dominantnog akademskog okruženja i onlajn kupovine. Dobro strukturiran upitnik usvojen iz različitih prethodnih studija sproveden je kroz onlajn anketu od 296 studenata širom Srbije. Izjave o identifikaciji životnog stila potrošača uključuju aktivnosti, interesovanja i mišljenja (AIO), gde se aktivnosti odnose na svakodnevne aktivnosti osobe u smislu zabave, slobodnog vremena i kupovine, interesovanja se odnose na značaj koji za osobu ima moda, hrana, rekreacija, mediji, a mišljenja se fokusiraju na društvena pitanja, proizvode, budućnost, kulturu. Studija koristi jednostavnu tehniku slučajnog uzorkovanja. Studija vrši analizu faktora istraživanja kako bi se izolovali faktori koji su se pojavili kao nosioci karakteristika životnog stila potrošača.

**Ključne reči:** *generacija Z, životni stil, onlajn kupovina*

## Introduction

According to the data of the Statistical Office of the Republic of Serbia, 81.5% of households in Serbia have an Internet connection [52]. Only 10% of the population claim to have never used the internet. The development of information and communication technologies facilitates everyday life and communication, changing the way and pattern of life that affects the use and purchase of products. Understanding the lifestyle of consumers is crucial to creating an adequate marketing strategy.

Demographic characteristics and personality of consumers influence the creation of consumer purchasing intentions. If we look at the buying process through five basic stages that the consumer goes through - problem identification, information retrieval, evaluation of alternatives, shopping and post-purchase behavior [27] and if it is clear that in online shopping consumers buy from retailers directly without intermediaries then the analysis of consumer purchasing intentions is a bound predictor of actual consumer behavior in online shopping [34]. If we look at the intention through the consumer's plan to perform an online transaction in a certain period of time [38], it is important that companies recognize the characteristics of target consumers and create an effective personalized communication message that will encourage them to buy. However, consumers with different characteristics may react differently to online shopping. Understanding the factors that affect online shopping is not an easy task and even though the leaders in online shopping are younger people, it does not mean that older customers are not online consumers and do not react to the messages that companies place on them.

Generation Z is the generation born after 1995, which is also called the i-generation, the post-millennium generation, the technology generation and the online generation. They are between 19 and 34 years old and are characterized by a digitally oriented lifestyle. Generation Z adapts well to both the real and virtual worlds, complementing each other easily, resulting in them easily finding, researching and sharing the information they need, using a variety of communication devices and channels. This generation is an active user of social media with many contacts, with daily

communication through social media [13]. Generation Z embodies its opinions and attitudes using Twitter, blogs and internet forums and likes to share photos (Instagram, Pinterest, Snapchat) and movies (YouTube, Instagram, Snapchat). Generation Z is not just user of Internet content, but also creates and controls it [22]. Understanding the Generation Z lifestyle is essential for all companies interested in designing appropriate communications for this consumer group.

## Who is Generation Z?

The need to profile consumers has created a theory of generations X, Y, and Z [58]. Generational profiles are created according to the demographic group of consumers that is associated with the year of birth and different lifestyles. Generation X consists of consumers born before 1980 and is also called the baby boomer generation. Generation Y consists of consumers born between 1980 and 1995 and is called the Millennium Generation. Generation Z consists of consumers born after 1995 and is also called the i-generation or postmillennial generation - true digital natives. It is clear that young people have different priorities compared to the older generations, they generally have no financial obligations, so they spend over 70% of their income on entertainment, travel and food. However, age is not the only factor that characterizes a certain generation, otherwise the behavior of teenagers today would not be differentiated by generations. Marketing professionals need to identify consumer behavior in each generation and create their STP strategy accordingly (segmentation, targeting, positioning). Differences in each generation bring significant differences in the segmentation of consumer behavior, where the change of generation implies significant implications, especially in marketing.

Generation Y is characterized by individuality in terms of decision making, they are educated and care about general social attitudes. They use electronic media (television and the Internet), and most respond to advertisements based on billboards and social networks [54]. Generation Z has similarities to Generation Y, but spends significantly more time in cyberspace. They follow

trends related to digital technologies and communications, and show a high dependence on smartphones [6]. They are more imaginative, confident, optimistic, born in the era of internet technology, focused on innovation, almost always online. They are informed and greatly influence family consumption [29]. Companies have to communicate with this generation in the online space, through social networks, applications. It must be clear to companies that as their purchasing power grows, so does the effectiveness of the marketing message that was built in communicating with them [44], [20]. Understanding the lifestyle of Generation Z, we gain valuable information in various areas of socio-economic life. According to Forrester Research, Generation Z spends more time online, almost 3.9 hours a week watching shows online, compared to adults in the United States who spend only 1.6 hours a week [45].

Generation Z has yet to be fully defined. They are accustomed to the daily use of high technology and multiple sources of information, with messages bombarding them from all sides. They are influenced by new media, virtual friends and the power that comes with technology. Interestingly, in the U.S., 24% of 12-18 year olds use different media most of the time while watching TV. This current approach to the world via the Web has fostered respect for knowledge - 83 percent of children aged 8 to 12 say, "It's nice to be smart". However, the accelerated pace of cyber speech shortened the range of attention and increased their awareness of visual elements. Generation Z is made up of new independent thinkers looking for answers in all areas of life. Today's teenagers are the first generation to practice the independence of adolescents on the Internet, that is, teenagers do not need parents or teachers to help them gather information. They can visualize a change of place with someone else and project possible behaviors. They are confident and have developed incredible optimism. Generation Z is also characterized by considerable marketing intelligence. Accepting peers is very important for Generation Z. The key feature is the need to belong. Music, fashion, cosmetics and video games are important in terms of accepting and fitting peers. Influence is common in areas of style, including hairstyles and wardrobe choices. Amazingly, children are

able to recognize brands from about 18 months. Children love to hear or see other children doing things. Puberty for this generation begins earlier than ever. She is a ten-year-old who dresses as if she has just celebrated her sixteenth birthday. He is a fearless and untouchable teenager, but he is afraid to enter the basement when it gets dark.

## Lifestyle segmentation

Lifestyle is a pattern in which people spend time and money on certain activities [18]. Many researchers point to the importance of analyzing lifestyle characteristics in customer behavior when shopping. Bellman et al. [3] in their analysis claim that online consumers have been online for years, that they use the Internet as a routine means of receiving and sending e-mails, doing their job, reading news, searching, and using it as routine use, as a shopping channel. Lifestyle of consumers directly and indirectly affects the behavior of online consumers in online shopping. From an economic perspective, consumer lifestyle refers to the way individuals distribute their income, both in terms of relative allocation for different products and services and in terms of specific choices within this group.

The concept of lifestyle in marketing was first introduced by William Lazer [30], who defines lifestyle as a typical pattern of personal and social characteristics of behavior of individuals or groups, which in practice refers to people's way of life and spending their time and money [26]. Psychographic analysis is the main instrument used to measure the lifestyle of consumers [36], [57]. Marketing theorists agree that the role of psychological variables in the study of consumers is unavoidable [46].

Consumer lifestyles are specific patterns of behavior that stem from the intrinsic values of those individuals that stem from an individual's lifestyle [24]. One's lifestyle is a function of inherent individual characteristics that are shaped through the social interaction of the individual life cycle [50]. Consumer lifestyle is the way they live, what products they buy, how they spend, what they think and how they feel about them. Understanding and predicting consumer behavior is a vital aspect of marketing, the basis of all marketing activities. Over the

past few decades, the emphasis has been on demography and social characteristics, although Plummer [43] states that demographic data are insufficient and need to be supplemented with other data. In this regard, Plummer [43] points out that lifestyle research is one of the most important activities in marketing. Donthu and Garcia [17] point to the fact that many factors help the development of online commerce, many are related to technological progress, but among the most important that do not relate to technological progress certainly relate to the lifestyle of consumers.

Lifestyle describes how a person behaves in interaction with his environment. Lifestyle measures human activities based on individual patterns of spending time, interests, but also according to basic characteristics such as income, education and residence. In predicting consumer behavior, experts argue that individual lifestyles determine individual consumer behavior to the best of their ability. If we say that an individual's lifestyle is a set of motivated behaviors that develop in interaction with the environment, living conditions and acquired knowledge and beliefs, then from a sociological point of view we can say that an individual's lifestyle is motivated by external stimuli, and psychologically suggests that inner trust drives a lifestyle. The AIO concept considers lifestyle as a series of behaviors that reflect individual psychological considerations and sociological consequences, which is why it was used in the analysis. Based on a review of the lifestyle literature, analysts generally agree that human behavior can be predicted and explained by the function of psychological and sociological variables, which create an individual's lifestyles.

Psychographic analysis is the main instrument that quantifies the lifestyle of consumers [36]. The concept of lifestyle is more comprehensive than demographic and socio-economic characteristics [49], [5] and in individuals, lifestyle is a stronger predictor of behavior. Lifestyle segmentation implies that people are divided into groups according to the way they spend their time, the importance of the things around them, their beliefs and socio-economic characteristics [23]. Therefore, companies need to understand the lifestyle of consumers in the local market in order to create a marketing strategy.

According to Swinyard and Smith [53], online consumers are younger, wealthier, more educated, have greater computer literacy, spend more time on the computer, spend more time online, easily make online purchases and are less afraid of financial losses resulting from online transactions. In their research, they emphasize the importance of computer literacy and how much knowledge about the use of the Internet allows them to be more productive and efficient. The analysis of Generation Z comes from the need to analyze consumers who already have general ICT knowledge, in order to create the most efficient marketing strategy in complex market conditions.

### Online shopping

Online shopping is the process by which consumers buy goods or services directly from the seller in real time, without an intermediary role, over the Internet [16]. Through online transactions, online consumers create value for companies in ways that need to be considered in order to understand the potential of online consumers [28]. Currently, e-commerce contributes from 5% to 9% of total gross domestic product in developed countries, and in emerging markets it increases by 15% to 25% each year. InternetWorldStats [25] reported that 62% of the world's population uses the Internet, and that number is increasing every day (in 1995 this percentage was 0.4, in 2000 5.8% of the world's population, in 2005 15.7%, and in 2015 46.4%). The world of online buying and selling is evolving at an astonishing rate. According to Statista [51], global online sales will increase to 4.135 billion dollars in 2020 [1]. The number of online shoppers is growing rapidly as the level of users who adopt and use all online shopping activities increases [12], [21].

Online shopping is the fastest growing field of e-commerce. Online shopping has certainly gained in importance with the growth of e-commerce, since 1990 when the global retail sector revolutionized [8]. With the advancement of technology, online consumers not only shop, but gain knowledge about products, compare brands, evaluate quality, gather price information in different locations and due to many other benefits that the online experience provides consumers, they become

more powerful and demanding in making purchasing decisions.

In recent years, there have been profound changes in the lifestyle of consumers, and not only because of the great expansion of the Internet. An increasing number of people are time-bound by obligations towards work and family. People today live in an era of rather hectic and busy working lifestyles and therefore it has become very difficult for most people to go shopping outside their homes.

Online shopping can also be found in the literature under the term online shopping, e-shopping, online shopping, and can be briefly defined as the process of buying goods and services online. Online shopping involves researching, searching, browsing or viewing products for more information with the possible intention of shopping online. According to Chiu et al. [9], online shopping can be considered an exchange of time, effort and money to receive products or services. In recent years, shopping online has become the norm and consumers around the world like to shop online, because it has many advantages. From the consumer's point of view, online shopping has eliminated traditional shopping inconveniences such as crowds, standing in long lines for payment and fighting for parking spaces in a busy location or mall. Rowley [47] states that customers can compare available products and their prices from different outlets online, without spending a lot of time but also money. In addition, online shopping allows consumers to enjoy the privacy of their home. On the business side, the Internet has significantly changed the way retailers represent, advertise, sell and communicate with consumers. Moreover, it offers retailers a global market that extends far beyond the traditional geographic markets served by their physical stores. According to a 2008 Nielsen Global Online Survey on Internet shopping habits [41], more than 85 percent of the world's online population made online purchases, up 40 percent from the 2006 market. Despite the tremendous growth and optimistic prospects of online shopping, there are still consumers who intend to buy online, but for some reason do not. Cho [10] points to the fact that almost 95 percent of Internet users visit retail sites, but that most of them do so without the intention of actually making a transaction. More importantly, it is estimated that 98.7

percent of those who visit websites do not return, even if a purchase is made. Moreover, Lewell[33] states that according to research conducted by Engage Technologies and the British internet consulting company UK Internet consultancy Nvision, four out of five web users never return to a page. It is undeniable that online shopping makes it easier for customers to shop, but also provides them with an unlimited level of information, where the current comparison of prices and services 24/7 raises concerns for online retailers, especially in retaining online consumers. These traders are just a click away from their competitors which is a major threat to maintaining revenue, profitability and market success [4].

## Research results

In this study 296 respondents participated in the study, young people members of Generation Z with an average age of 23.58 years, of which 63 (21.3%) were male respondents and 233 (78.7%) were female respondents. None of the respondents voted for the rest, as far as gender is concerned. Regarding the region of birth of the respondents, 67.9% were born on the territory of the City of Belgrade, 14.9% in Vojvodina, 2.7% in the Former Yugoslav Republic and 14.5% in some other location.

In relation to the place of residence, the largest number of respondents live in the territory of the City of Belgrade 70.3%, in Vojvodina 16.6%, in the territories of the former Yugoslav republics 0.7% and 12.5% live in another destination. Looking at the place of living related to the urban areas, 49.3% live in the inner city, 29.7% live in the wider city center, while 20.9% of respondents live in rural areas. In Table 5 we can see that the most common financial position of the respondents is mostly good (45.6%), then mediocre (41.6%), very good financial position has 9.8% while mostly bad and very bad financial position has 3% respondents.

Observing the personal/family material position in relation to the urbanity of the environment, the Chi-square Independence Test did not show a significant relationship,  $\chi^2(12, n=296)=9.246, p=0.322, \phi=0.177$ . The Chi-square Independence Test showed a significant relationship between variable personal/family financial

status and region of living,  $\chi^2(12, n=296)=84.275, p=0.000, phi=0.534$ . As  $R-1 = 3$  (four categories) Cramer's  $V$  is 0.308, so we say that the impact is great [19].

## Activities

Looking at the variables from the group Activities - Work, all observed variables: I love my job/core business (e.g. studies if you study, etc.), It is important for me to work on jobs where I can highlight my creativity, I have ambitions to advance in the company/institution where I work, I manage to perform the assigned activities within the prescribed time, It is important to me to do my job well/quality and I manage to balance free time and obligations/work I do have an average grade of 6.1 or higher, show strong negative asymmetry (Skewness are less than -1.5), and the data are homogeneous for all observed variables, i.e. the coefficients of variation are about 14%. Each of the variables has outlay data. None of the variables has a normal schedule (all Sig. P\_value for the Kolmogorov-Smirnov test are less than 0.05). The Mann-Whitney U test did not reveal a significant difference for any of the observed variables between men and women (all Asymp. Sig. (2-tailed) values are greater than 0.05). Kruskal Wallis Test found a statistically significant difference for It is important for me to work on jobs where I can highlight my creativity in three different groups of urban urbanity (Asymp. Sig. P\_value is 0.021), where the group has the highest mean rank respondents whose living in the Already metropolitan area. Kruskal Wallis Test revealed a statistically significant difference for I love my job/core business (e.g. studies if you study, etc.), It is important for me to work on jobs where I can highlight my creativity, I manage to complete assigned activities on time, I succeed to balance free time and obligations/work I do, in five different groups of material position of respondents (Asymp. Sig. p\_value are 0.042, 0.008, 0.020, 0.041), where the highest average value of rank (Mean Rank) has a group of respondents whose financial position Very good.

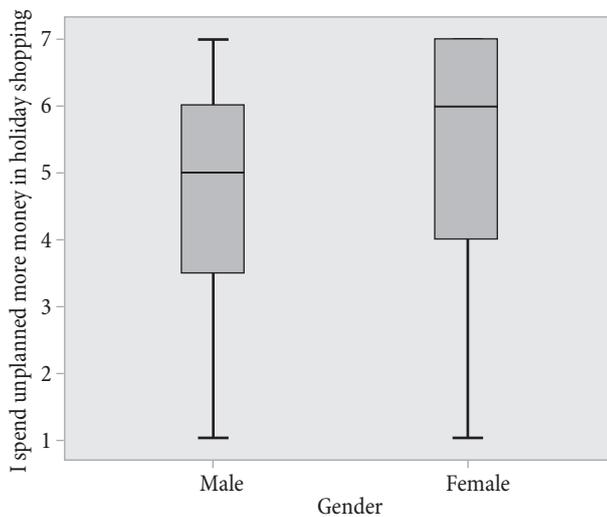
Variables from the subgroup Activities - Hobbies, free time (I have enough free time, I try to organize my free time well, I like to spend free time at home, I have a hobby that I do in my free time, I enjoy my free time,

Free time is worth extra money, I watch less TV because of the internet) do not have a normal schedule (all Sig. p\_value for Kolmogorov-Smirnov test are less than 0.05), average grades are equal to or greater than 5.09, median is for all variables 6 (50%) respondents give a grade of 6 or less), except for the variable I like to spend my free time at home. All variables show a strong negative asymmetry (Skewness is less than -1), and the data are homogeneous for all observed variables (coefficients of variation are less than 30%), except for the variable I have a hobby in my spare time (coefficient of variation is 35%). This variable is the only one in the subgroup that does not have outlayer data. The Mann-Whitney U test did not reveal a significant difference for any of the observed variables between men and women (all Asymp. Sig. (2-tailed) values are greater than 0.05). The Kruskal Wallis Test did not reveal a statistically significant difference for any of the observed variables in the three different groups of urban urbanity (Asymp. Sig. P\_value are greater than 0.05).

Variables from the subgroup Activities - Holidays and social events (I like to attend social events, For the holidays I relax and enjoy spending time with family and friends, I like to travel during the holidays, I like to go on holiday shopping, I plan a budget for holiday shopping, I spend unplanned more money in holiday shopping) do not have a normal schedule. All variables have an average rating of 5.23 or higher, except for the variable I plan a budget for holiday shopping which has an average rating of 4.98 and a coefficient of variation of 37.69%. All variables have a median of 6, except the variable for the holidays I rest and enjoy spending time with family and friends whose median is 7 and the minimum value is 5. Variables I like to go on holiday shopping they have no outlay data. All variables show a strong negative asymmetry. When asked about unplanned higher spending of money in holiday shopping (see Figure 1), there was a statistically significant difference in the gender of respondents Male (Me=5.0, n=63) or Female (Me=6.0, n=233),  $U=5,565.00, z=-1.693, p=0.002$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{1,693}{17,20} = 0.10$ , i.e. we can say that the impact is small Cohen [11]. Female respondents have a higher Mean Rank.

Variables from the subgroup Activities - Entertainment (I prefer to sit at home than to go out / I am a "home type",

**Figure 1: Spending money during the holidays in relation to gender**



Source: Author (2022), results of primary research

I like to go to parties with a lot of people where loud music is played, I like to organize parties and dinners in my home, I like to I spend money on outings) don't have a normal schedule. I like to go to parties with a lot of people where loud music is played, which is expected, considering the age group of respondents, while other variables have an average grade of around 4.5 and a median 4 or 5. Variable I prefer to sit at home than to go out/I am "home type" shows a small negative asymmetry, while other variables show a medium negative asymmetry. All variables have a coefficient of variation greater than 30%. The Mann-Whitney U test did not reveal a significant difference for any of the observed variables between men and women (all Asymp. Sig. (2-tailed) values are greater than 0.05).

Variables from the subgroup Activities - Club membership (I accept loyalty cards, I use the benefits of shopping that offer loyalty cards for online shopping) do not have a normal distribution, average scores are almost identical 5.08 and 5.03, median is 6, while the coefficients of variation greater than 30%, and variables show strong negative asymmetry. On the question of loyalty cards, there was a statistically significant difference in the sex of the male (Me=5.0, n=63) or Female (Me=6.0, n=233),  $U=6,051.50$ ,  $z=-2.238$ ,  $p=0.025$ , magnitude of the impact  $r = \frac{z}{\sqrt{N}} = \frac{2,238}{17,20} = 0.13$  i.e. we can say that the impact is small Cohen [11]. Female respondents have a higher Mean Rank. Use of shopping benefits offered by loyalty cards and

for online shopping, there was a statistically significant difference in the gender of the respondents Male (Me=5.0, n=63) or Female (Me=6.0, n=233),  $U 6,089.50$ ,  $z=-2.119$ ,  $p=0.034$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{2,119}{17,20} = 0.12$ , i.e. we can say that the impact is small Cohen [11].

Variables from the subgroup Activities - Community (I spend a lot of time talking to friends about products and brands, Among the first in society to try new products and brands, Friends often come to consult with me about shopping, I buy online if friends recommend, On social networks regularly I follow announcements about products and brands) do not have a normal schedule. The variable has the highest average score of 5.15. On social networks, I regularly follow announcements about products and brands, with a median of 6 and a strong negative asymmetry. Other variables have an average score between 4.25 and 4.81, a median of 5, except for the variable Among the first in society I try new products and brands that have a median of 4 and a slight negative asymmetry. None of the observed variables has outlay data. To follow the announcements on social networks about new products and brands, there was a statistically significant difference in the gender of the respondents Male (Me=5.0, n=63) or Female (Me=6.0, n=233),  $U=5,834.00$ ,  $z=-2.556$ ,  $p=0.011$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{2,556}{17,20} = 0.15$ , i.e. we can say that the impact is small Cohen [11]. For none of the observed variables, there was no significant difference in relation to material position (all Asymp. Sig. P\_value for Kruskal Wallis Test are greater than 0.05).

Variables from the subgroup Activities - Shopping (I like to buy smart - I get more value for price), Online shopping is a new, fun way to shop, Online shopping is easier than going to traditional stores, I like to search online stores, Online shopping offers lower prices than those in traditional stores, I enjoy online shopping, I think online shopping offers a better choice than traditional stores, I don't know much about the possibilities offered by the Internet, Online shopping scares me, I buy online more than before, Online shopping we avoid problems with local stores) do not have a normal schedule. All variables have an average rating of 5.16 to 6.19, except for the variables I think online shopping offers a better choice than traditional stores with an average rating of 4.73 and a median of 5, I

buy online more than before 4.60 and a median of 5, and variables Online shopping scares me 3.48 and median 3. These three variables show a slight negative asymmetry. Variables I like to buy smart - I get higher value in terms of price/quality and I like to search online stores have outlay data, while other variables do not.

In Figure 2 for the variable I like to buy smart, we can see that the minimum value is 5, and that the variation interval is 1 (Q3-Q1). The results are not unexpected given that young people spend much of their time online and on social media. For smart shopping, obtaining higher value in relation to price/quality, there was a statistically significant difference in the gender of the respondents Male (Me=6.0, n=63) or Female (Me=7.0, n=233), U=5,909.00, z=-2.583, p=0.010, magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{2,583}{17,20} = 0.15$ , i.e. we can say that the impact is small Cohen (1988). The Kruskal Wallis Test found a statistically significant difference for Online Shopping is a new, fun way to shop in five different material position groups (Asymp. Sig. P\_ value is 0.042), with the highest Mean Rank having a group of respondents whose financial position is Very Good. We can also see that among the volatile online shopping is a new, fun way of shopping and online shopping is easier than going to traditional stores, I like to search online stores and enjoy online shopping, as well as among I enjoy online shopping and I think online shopping offers better choice of traditional stores there are significant linear connections (r=0.673, r=0.689 and r=0.675), while

among the variables Online shopping is a new, fun way of shopping and I enjoy online shopping there is a strong linear connection (r=0.750).

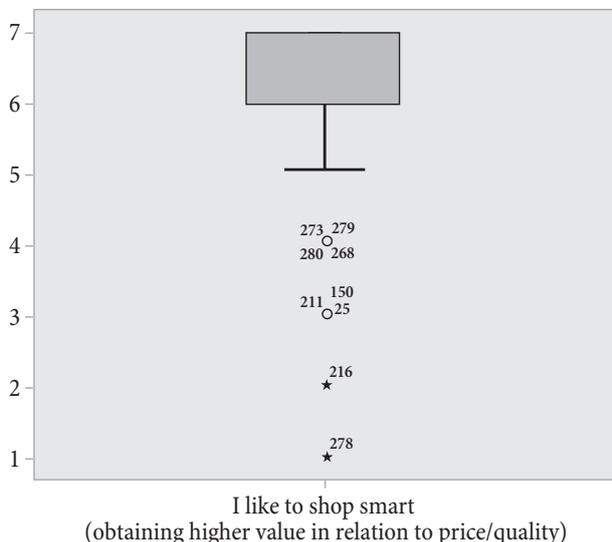
Variables from the subgroup Activities (Sports) What was expected, for all observed variables Man-Whitney U test revealed differences for men and women (all Asymp. Sig. (2-tailed) p\_value are less than 0.05, i.e. are respectively 0.005, 0.001, 0.006, 0.000, 0.001), where the variables are on average higher (higher Mean Rank) for male respondents

Interests

Variables from the subgroup Interests - Family (I spend my free time entirely with my family, I am directly involved in spending the household budget, I like to go shopping with my family). The observed variables have average scores of 5.50, 5.49 and 5.56. The medians for all variables are 6, and the variables show a strong negative asymmetry (see Figure 3). Only variable I like to go shopping with my family has outlay data. For going shopping with the family, there was a statistically significant difference in relation to the sex of the respondents Male (Me=5.0, n=63) or Female (Me=6.0, n=233), U=5,283.00, z=-3.548, p=0.000, magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{3,548}{17,20} = 0.21$ , i.e. we can say that the influence is middle Cohen [11].

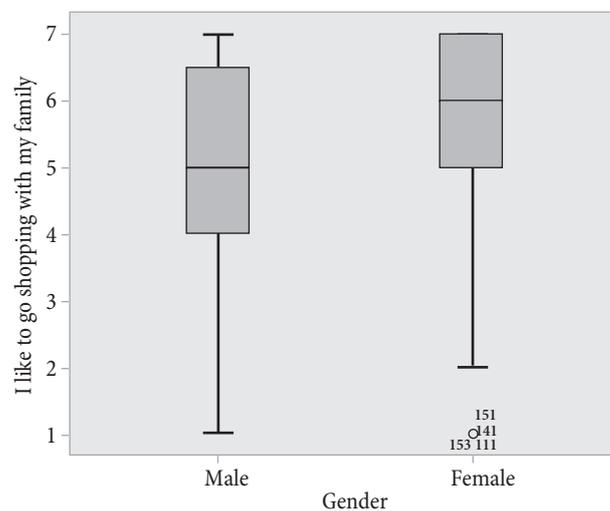
Variables from the subgroup Interests - Home (I wish I didn't have to leave the house when I buy, I find

Figure 2: I like to shop smart



Source: Author (2022), results of primary research

Figure 3: I like to go shopping with my family in relation to gender



Source: Author (2022), results of primary research

out about prices online to save home budget, I like to have products delivered to my home address, I don't spend more than necessary to bought certain products (even if I don't buy the best brand), I like to try products I see online (on social networks) they don't have a normal schedule. All observed variables show a medium negative asymmetry, except for the variable I would like not to have to leave the house when shopping for which we can say that there is no asymmetry, which has a median of 4, while all other variables have a median of 5.04, 5.01, 4.89, 4.96 and 4.65. The Man-Whitney U test did not reveal a significant difference for any of the variables for men and women (all Asymp. Sig. (2-tailed) p\_value are greater than 0.05, and are 0.666, 0.159, 0.935, 0.439 and 0.459). The Kruskal Wallis Test did not reveal a significant difference for any of the observed variables for the three different environmental groups in which the respondents live (all Asymp. Sig. P\_value are greater than 0.05, and are 0.756, 0.427, 0.612, 0.569, 0.083).

Variables from the subgroup Interests - Work (I do work carefully to make sure it is well done, I am ready to spend more time to do a good job, I am creative in doing my job, I like to I have obligations that will use my time productively, because of the work I do, it is easier for me to buy online) they do not have a normal schedule. All observed variables show very strong negative asymmetry and have average averages of 6.54, 6.26, 6.16, 6.23 with a median of 7, and coefficients of variation of less than 20%, except for the variable Because of the work I do it is easier for me to buy online which has an average score of 4.53 with a median of 4, weak negative asymmetry and a coefficient of variation of 44.81%. All variables, except the variable Because of the work I do, it is easier for me to buy online, they have outlay data. Man-Whitney's U test did not reveal a significant difference for any of the variables for men and women (all Asymp. Sig. (2-tailed) p\_value are greater than 0.05, and are 0.118, 0.553, 0.842, 0.439 and 0.459). The Kruskal Wallis Test did not reveal a statistically significant difference for any of the observed variables in the three different groups of urban urbanity (Asymp. Sig. P\_value are greater than 0.05).

Variables from the subgroup Interests - Food (I watch how I eat, I choose foods carefully, I buy foods of

organic origin, I buy foods with low calories, I use diet products at least once a week, I buy groceries every day in the store, I buy groceries online). Average grades are 4.80, 5.00, 4.03, 4.14, 3.93, 5.92 and 2.49, medians 5, 5, 4, 4, 4, 6 and 1, which means that 50% of respondents for the variable I buy food online gives a score of 1. This variable has a pronounced positive asymmetry, other variables have a pronounced negative asymmetry, except for variables I buy foods of organic origin, I buy foods with low calories, I use diet products at least once a week.

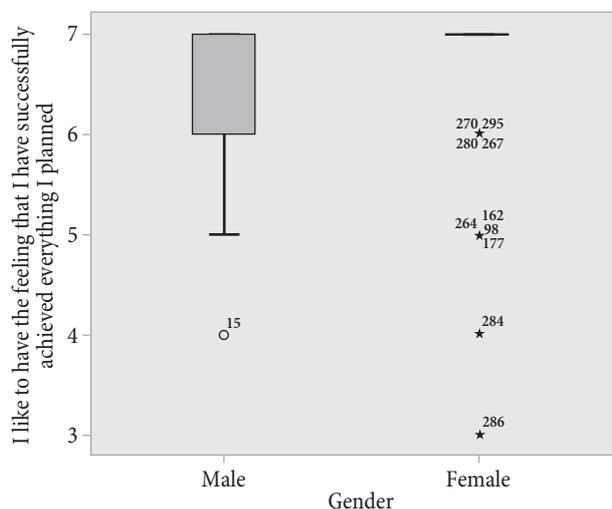
The Mann-Whitney U test did not reveal a significant difference for any of the variables for men and women (all Asymp. Sig. (2-tailed) p\_value are greater than 0.05, and are 0.962, 0.895, 0.272, 0.799, 0.232, 0.209 and 0.540). The Kruskal Wallis Test found a statistically significant difference for: I watch how I eat, I choose foods carefully and I use diet products at least once a week in three different groups of urban urbanity (Asymp. Sig. P\_value are 0.010, 0.018 and 0.022), where the highest mean Mean Rank for all variables has a group of respondents whose place of residence is the metropolitan area.

Variables from the subgroup Interests - Media (I trust the information I read on the Internet, I read the news every day, I enjoy renting/buying favorite movies for delayed viewing, I enjoy listening to the radio, I like to follow news online actively and up to date during the day, those things that interest me, I am informed about products and events that are not only related to my work and family) do not have a normal schedule. Average grades of variables are 3.38, 3.89, 3.29, 5.04, 4.05, 5.79 and 5.60, medians 4, 4, 3, 6, 4, 6 and 6. Variables I enjoy listening to the radio, I am informed online about those things that interest me, I am informed about products and events that are not only related to my work and family show strong negative asymmetry, changeable I like to follow news online actively and azure during the day medium negative asymmetry, variable I trust the information I read on the internet and I enjoy renting/buying my favorite movies for delayed viewing medium positive asymmetry, while the variable I read news daily has no asymmetry. Just questionable I find out about products and events that are not just related to my job and family has outlay data. For listening to the radio, there was a

statistically significant difference in relation to the sex of the respondents Male (Me=4.0, n=63) or Female (Me=6.0, n=233),  $U=4,675.00$ ,  $z= 4.520$ ,  $p=0,000$ , size impact  $r = \frac{z}{\sqrt{N}} = \frac{4,520}{17,20} = 0.26$ , i.e. we can say that the influence is middle Cohen [11]. Among the variables I believe in the information I read on the Internet and I read the news every day, I inform myself online about those things that interest me and I inform myself about products and events that are not only related to my work and family, there are significant linear connections ( $r=0.592$  and  $r=0.669$ ).

Variables from the subgroup Interests - Achievements (I am proud to use things I have done, I like to feel that I have successfully achieved everything I planned, I like to do things my way, I like to feel excited to do new things) do not have a normal schedule (see Figure 4). The average scores are 6.59, 6.67, 6.53 and 6.47, the median is 7. All variables have a strong negative asymmetry, and the coefficients of variation are less than 12.13%. Regarding the pride after the done and later used, there was a statistically significant difference in relation to the sex of the respondents Male (Me=7.0, n=63) or Female (Me=7.0, n=233),  $U=6,241.00$ ,  $z=-2.209$ ,  $p=0.027$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{2,209}{17,20} = 0.13$  t, i.e. we can say that the impact is small Cohen [11]. When it comes to the feeling of success for all that was planned, there was a statistically significant difference in relation to the sex of

**Figure 4: I like to have the feeling that I have successfully achieved everything I planned in relation to gender**



Source: Author (2022), results of primary research

the respondents Male (Me=7.0, n=63) or Female (Me=7.0, n=233),  $U=6,616.00$ ,  $z=-2.845$ ,  $p=0.004$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{2,845}{17,20} = 0.17$ , i.e. we can say that the impact is small Cohen[11]. In both cases, female respondents have a higher Mean rank.

### Opinion

Variables from the subgroup Opinion - About myself (I am more independent than most people, I am satisfied with how I cope with everyday life activities, I experience myself as a young and energetic person, I think I have more self-confidence than other people, I never rush myself, I like to I spend time with positive people who enjoy life) do not have a normal schedule. All variables show strong negative asymmetry, average scores are 5.73, 6.00, 6.17, 5.17, 5.02 and 6.65, medians 6, 6, 6, 6, 5 and 7. All variables have coefficient of variation less than 20%, except for the variable I never rush myself who has a coefficient of variation of 33.86%. Regarding independence from other people, there was a statistically significant difference in the sex of men (Me=6.0, n=63) or Female (Me=6.0, n=233),  $U=5,496.00$ ,  $z=-3.234$ ,  $p=0.001$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{3,234}{17,20} = 0.19$ , i.e. we can say that the impact is small Cohen [11]. The Kruskal Wallis Test found a statistically significant difference for: I am more independent than most people and I think I have more self-confidence than other people in three different groups of urban urbanity (Asymp. Sig. P\_value is 0.012 and 0.003), where the highest mean rank (Mean Rank) for both variables has a group of respondents whose place of residence is the Already metropolitan area.

Variables from the subgroup Opinion - Social Issues (Environmental issues are important, I like to volunteer, I like to work on projects related to improving the community in which I live) do not have a normal schedule. The average scores are 6.41, 5.02 and 5.37, the medians are 7, 5 and 6. All variables have a coefficient of variation of less than 30% and show a strong negative asymmetry. Only Variable Environmental Issues Matter Have Outlay Data. On the importance of the environment, there was a statistically significant difference in relation to the sex of the respondents Male (Me=6.0, n=63) or

Female (Me=7.0, n=233),  $U=5,750.50$ ,  $z=-3.013$ ,  $p=0.003$ , magnitude of the impact  $r = \frac{z}{\sqrt{N}} = \frac{3,013}{17,20} = 0.18$ , i.e. we can say that the impact is small Cohen [11]. The Kruskal Wallis Test found a statistically significant difference for: Environmental issues are important in three different groups of urban urbanity (Asymp. Sig. P\_value is 0.048), where the highest Mean Rank has a group of respondents whose place of residence is city center.

Variables from the subgroup Opinion - Business (I don't need anything, I buy even when I don't intend to spend money, I buy products I see online) they don't have a normal schedule. Average grades are 5.79, 5.70, 5.27, 4.99, 4.67, 4.66 and 4.54, medians are 6, 6, 6, 5.5, 5, 5 and 5. Variables I like to pay for products and services in cash, I check the prices of all products (even in everyday shopping), A person can save a lot if they spend time finding the best deals online have a coefficient of variation less than 30%, other variables have a coefficient of variation greater than 30%. None of the variables have outlier data. The Man-Whitney U test did not reveal a significant difference for any of the variables for men and women (all all Asymp. Sig. (2-tailed) p\_value are greater than 0.05, and are 0.997, 0.606, 0.502, 0.993, 0.216, 0.283 and 0.837). The Kruskal Wallis Test did not reveal a statistically significant difference for any of the observed variables in the three different groups of urban urbanity (Asymp. Sig. P\_value are greater than 0.05). Among the variable I buy when I don't need anything and I buy and when I don't intend to spend money there is a strong linear connection ( $r = 0.786$ ), while among the variables I buy when I don't need anything and I buy products I see online there is a significant linear connection = 0.549).

Variables from the subgroup Opinion - Economy (I enjoy shopping online, I buy products online that are on sale, Local stores offer better prices than online stores, I always buy at the lowest price) do not have a normal schedule. The average scores are 4.70, 4.73, 4.36 and 4.52, the medians are 5, 5, 4 and 4. All coefficients of variation are greater than 30%. Variables I enjoy shopping online and I buy products online that are on sale show strong negative asymmetry, the variable Local stores offer better prices than online stores small negative asymmetry and the variable I always buy at the lowest price medium negative

asymmetry. Only variables Local stores offer better prices than online stores have outliers and smaller and larger than the minimum / maximum values of variables from the 1.5IQR interval. The Man-Whitney U test did not reveal a significant difference for any of the variables for men and women (all of Asymp. Sig. (2-tailed) p\_value are greater than 0.05, and are 0.900, 0.563, 0.990, and 0.893). The Kruskal Wallis Test did not reveal a statistically significant difference for any of the observed variables in the three different groups of urban urbanity (Asymp. Sig. P\_value are greater than 0.05).

Variables from the subgroup Opinion - Education (I try to improve every day, I attended online courses, I put in a lot of time and effort to teach children the right things) do not have a normal schedule. Average values are 6.13, 3.96 and 4.55, medians are 6, 4 and 5. Variables I try to improve every day and I enter a lot of time and effort to teach children the right things show a strong negative asymmetry, while the variable I attended online courses have no asymmetry. I try to improve every day, it has a coefficient of variation in the amount of 17.99% and outlier data, while other variables have a coefficient of variation of more than 30% but no outlier data. For attending online courses, there was a statistically significant difference in relation to the sex of the respondents Male (Me=5.0, n=63) or Female (Me=3.0, n=233),  $U=5,912.50$ ,  $z=-2.406$ ,  $p=0.016$ , the magnitude of the impact  $r = \frac{z}{\sqrt{N}} = \frac{2,406}{17,20} = 0.14$ , i.e. we can say that the impact is small Cohen [11]. The Kruskal Wallis Test revealed a statistically significant difference for: I attended online courses in three different groups of urban urbanity (Asymp. Sig. P\_value is 0.014), where the highest grade point average (Mean Rank) has a group of respondents whose place of residence is the metropolitan area.

Variables from the subgroup Opinion - Products (I buy in traditional stores, It is difficult to assess the quality of products online, I like to see the product before I buy it, When I buy a particular brand I like to visit several stores to compare models and price, I like products simple design, I try to buy products that are new and unique, I buy products of well-known brands (because the brand indicates a certain quality), Before I make a purchase I inform myself online, I like the help and kindness I can

get in local stores) schedule. The average values of the observed variables are 5.94, 5.96, 6.15, 5.55, 5.82, 5.22, 4.26, 4.88 and 5.51, medians 6, 6, 7, 6, 6, 5, 4, 5 and 6. All variables have a strong negative asymmetry, except for the variable I buy products of well-known brands (because the brand indicates a certain quality) which has a pronounced medium asymmetry. All variables have a coefficient of variation of less than 30%, except for the variables I buy products of well-known brands (because the brand indicates a certain quality) and Before I make a purchase I get information online that have a coefficient of variation greater than 30%. For purchases in traditional stores, there was a statistically significant difference in relation to the sex of the respondents Male (Me=6.0, n=63) or Female (Me=6.0, n= 33),  $U=5,712.0$ ,  $z=-2.870$ ,  $p=0.004$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{2,870}{17,20} = 0.17$ , i.e. we can say that the impact is small Cohen (1988). To assess the quality of products in online shopping, there was a statistically significant difference in relation to the sex of respondents Male (Me=6.0, n=63) or Female (Me=6.0, n=233),  $U=5,782.50$ ,  $z=-2.746$ ,  $p=0.006$ , magnitude of impact  $r = \frac{z}{\sqrt{N}} = \frac{2,746}{17,20} = 0.16$ , i.e. we can say that the impact is small Cohen (1988). The Kruskal Wallis Test did not reveal a statistically significant difference for any of the observed variables in the three different groups of urban urbanity (Asymp. Sig. P\_value are greater than 0.05).

Variables from the Thinking subgroup - Future, I like to plan all my activities in advance, I am ready to spend more time searching for what I want (and eventually find), I like to try new things, I like to change things that are not done properly) do not have a normal schedule. The average values are 6.09, 6.16, 6.11 and 6.16, the median for all variables is 6, and the coefficients of variation are less than 20% and all variables show a strong negative asymmetry. The Man-Whitney U test did not reveal a significant difference for any of the variables for men and women (all of Asymp. Sig. (2-tailed) p\_value are greater than 0.05, and are 0.885, 0.279, 0.777, and 0.442). The Kruskal Wallis Test found a statistically significant difference for: I like to try new things and I like to change things that are not done properly in three different groups of urban urbanity (Asymp. Sig. P\_value are 0.007 and 0.022), where the highest mean rank Mean Rank) has

a group of respondents whose place of residence is the Already metropolitan area.

### Exploratory factor analysis

Factor Analysis explains the common variance of the variables related to lifestyle, i.e. the variability within the group of variables that we formed for the purposes of analysis. There are 25 variables in the groups, so all the necessary conditions are met. Given the sample size (296) the factor weight is 0.40.

*The first group of questions.* The Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.887 and Bartlett’s specificity test reached statistical significance (Sig= 0.000), which indicates the factorality of the correlation matrix, i.e. factor analysis is warranted (see Table 1).

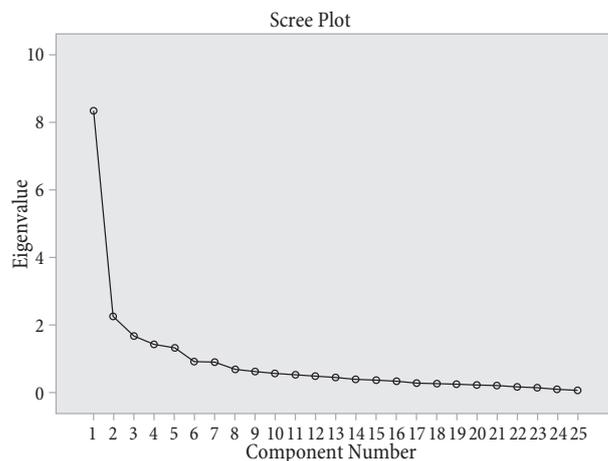
**Table 1: KMO and Bartlett’s Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.887
Bartlett’s Test of Sphericity	Approx. Chi-Square 3606.752
	Df 300
	Sig. .000

As we are only interested in a component with a characteristic value of 1 or more, we have five components that have characteristic values above 1 (8,328, 2,305, 1,749, 1,519 and 1,400), which explain 33.14%, 9.22%, 7.00%, 6.08% and 5.60% of variance, i.e. these five components explain a total of 61.21% of the variance.

On the fold diagram (which is the result of the SPSS report), we noticed the existence of a clear first breaking point between the fifth and sixth components (see Figure

**Figure 5: Fold diagram**



Source: Author (2022), results of primary research

5). In order to determine the number of factors to be retained, a parallel analysis (PCA) was performed.

The results of the parallel analysis support the conclusion made on the basis of the pass diagram, to keep five factors for further research (see Table 2), whose characteristic value exceeds the corresponding threshold value obtained using an equally large matrix of random numbers (25 variables  $\times$  296 respondents).

**Table 2: Comparison of characteristic values obtained in Principal Components Analysis**

Component number	Generated characteristic value from PCA	Value obtained by parallel analysis	Decision
1	8.328	1.5202	accept
2	2.305	1.4313	accept
3	1.749	1.3666	accept
4	1.519	1.3076	accept
5	1.400	1.2575	accept

The SPSS report in the Table Component Matrix does not rotate the factor weights of each of the variables for the five components/factors. Component 1 has 20 factor weights greater than 0.40, component 2 has 3 factor weights greater than 0.40, component 3 has no factor weight greater than 0.40, component 4 has 2 factor weights greater than 0.40, and component 5 has no factor weights greater than 0.40, which indicates that a two-factor solution would still be more appropriate.

Oblimin rotation of a two-factor solution: The two-factor solution explains 42.53% of the estimated variance, with the contribution of the first component being 33.14% and the second component 9.22%, while the five-factor solution explained almost 61.21%. In the SPSS report in the Table Component Correlation Matrix we obtain the correlation coefficient among the factors (0.189). The correlation is very small, so we expect Varimax and Oblimin rotation to provide very similar solutions.

In the Communalities Table (part of the variance explained by common factors) in the SPSS report (see Table 3), the data representing the common factors explain the part of the variance for each variable. We note that the change (items) I wish I didn't have to leave the house when I buy (Communality = 0.357 and actual weight 0.556), I like to try out products I see online (on social networks). (Communality=0.320 and actual weight 0.555), I learn about

prices online to save home budget (Communality=0.313 and weight 0.537), I spend a lot of time talking to friends about products and brands (Communality=0.171 and weight 0.507) with low Communality values. less than 0.4) may indicate that the variable (item) does not fit well into its component with other variables (items). The SPSS report in the Table Pattern Matrix gives factor weight items (see Table 3), and we can see that for component 1 I enjoy online shopping, online shopping is a new, fun way to shop, online shopping is easier than leaving in traditional stores. I like to search online stores, I think that online shopping offers a better choice than traditional stores, I buy online more than before they have the highest factor weights. The main items for component 2 are online shopping scares me, I don't know much about the possibilities offered by the internet, None of my friends buy online.

In Table 3, we see that each variable gave a large factor weight to only one component, and each variable was given a large factor weight by a number of variables. Component 1 is defined by the following variables: I enjoy online shopping; Online shopping is a new, fun way to shop; Online shopping is easier to go to traditional stores; I like to search online stores; I think online shopping offers a better choice than traditional stores; I shop online more than before; I shop online if my friends recommend me; I regularly follow posts about products and brands on social networks; Online shopping offers lower prices than those in traditional stores; I like to have products delivered to my home address; By shopping online we avoid problems with local stores; Friends often come to consult with me about shopping; I am among the first in the company to try new products and brands; I wish I didn't have to leave the house when I buy; I like to try out products I see online (on social media); Find out about prices online to save on your home budget; I spend a lot of time talking to friends about products and brands; In online shopping, I choose clothing items of a unique/special style, we can call it - *Internet Involvement*. Component 2 is defined by the variables: Online shopping scares me; I don't know much about the possibilities the internet offers; None of my friends buy online, so we can call this component *Inactivity*.

**Table 3: Factor weights and correlation matrix of variable factors for Principal Components Analysis (PCA) with Oblimin rotation two-factor solution for activity items**

Variable	Pattern		Structure		Communalities
	Component 1	Component 2	Component 1	Component 2	
I enjoy online shopping.	.855	-.214	.815	-.052	.708
Online shopping is a new, fun way to shop.	.855	-.254	.807	-.092	.714
Shopping online is easier than going to traditional stores.	.786	-.249	.754	.048	.606
I like to search online stores.	.783	-.284	.739	-.100	.609
I think online shopping offers a better choice than traditional stores.	.772	-.098	.729	-.136	.577
I shop online more than before.	.721	-.080	.706	.056	.505
I buy online if my friends recommend it.	.691	.025	.696	.156	.485
I regularly follow announcements about products and brands on social networks.	.649	.037	.656	.159	.432
Online shopping offers lower prices than those in traditional stores.	.645	-.025	.645	.428	.411
I like to have products delivered to my home address.	.628	-.094	.642	.270	.381
By shopping online, we avoid problems with local stores.	.613	.154	.641	.097	.435
Friends often come to consult with me about shopping.	.585	.317	.632	.437	.513
I am one of the first in the company to try new products and brands.	.570	.330	.610	.025	.505
I wish I didn't have to leave the house when I buy.	.556	.137	.582	.242	.357
I like to try products I see online (on social networks).	.555	.049	.575	.454	.320
I inform myself about the prices online in order to save the household budget.	.537	.086	.564	.154	.313
I spend a lot of time talking to friends about products and brands.	.507	.358	.553	.187	.171
In online shopping, I choose clothes of a unique / special style.	.420	-.050	.411	.029	.454
I also use the shopping benefits offered by loyalty cards for online shopping.	.352	.303	.409	.370	.256
I accept loyalty cards.	.327	.314	.387	.376	.244
I like to buy smart (I get more value in terms of price / quality).	.261	.103	.281	.152	.089
Online shopping scares me.	-.148	.762	-.004	.734	.560
I don't know much about the possibilities the internet offers.	-.054	.680	.075	.669	.455
None of my friends shop online.	-.053	.670	.073	.660	.438
I don't spend more than necessary to buy certain products (even if I don't buy the best brand).	.199	.210	.239	.248	.100

*The second group of the question.* The Kaiser-Meyer-Olkin Measure of Sampling Adequacy = 0.822 and Bartlett's specificity test reached statistical significance (Sig = 0.000), which indicates the factorability of the correlation matrix, i.e. factor analysis is justified (see Table 4).

**Table 4: KMO and Bartlett's Test**

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.822	
Bartlett's Test of Sphericity	Approx. Chi-Square	3073.696
	df	300
	Sig.	.000

As we are only interested in a component with a characteristic value of 1 or more, we have seven components that have characteristic values above 1 (6,573, 2,699, 1,743, 1,631, 1,287, 1,169 and 1,056), which explain 26.29%, 10.80%, 6.93%, 6.52%, 5.15%, 4.68% and 4.22%

of variance, i.e. these five components explain a total of 64.59% of the variance. On the pass diagram (which is the result of the SPSS report), we noticed the existence of a clear first breaking point between the third and fourth components (see Figure 6).

The SPSS report in the Table Component Matrix does not rotate the factor weights of each of the variables for the five components (factors). Component 1 has 17 factor weights greater than 0.40, component 2 has 4 factor weights greater than 0.40, component 3 has 3 factor weights greater than 0.40, component 4 has no factor weights greater than 0.40, and component 5 has 2 factor weights greater than 0.40, component 6 and component 7 have one factor weight greater than 0.40, which indicates that a two-factor solution would be more appropriate in this case (see Table 5).

Oblimin rotation of a two-factor solution: The two-factor solution explains 37.09% of the estimated variance, with the contribution of the first component being 26.29% and the second component 10.80%, while the seven-factor solution explained 64.59% of the variance. In the SPSS report in the Table Component Correlation Matrix we obtain the correlation coefficient among the factors (0.241). The correlation is very small, so we expect Varimax and Oblimin rotation to provide very similar solutions.

In the Communalities Table (part of the variance explained by common factors) in the SPSS report (see Table 6), the data representing the common factors explain the part of the variance for each variable. We notice that variables: I buy even when I don't need to buy anything (Communality = 0.314 and actual weight 0.527), I buy even when I have no intention of spending money I buy (Communality=0.249 and actual weight 0.479), I try to buy products that are new and unique buy (Communality=0.289 and actual weight 0.466), A person can save a lot if time is spent in finding the best

deals online buy (Communality=0.278 and actual weight 0.450), Local stores offer better prices than online stores I buy (Communality=0.258 and actual weight 0.411) with low Communality values (e.g. less than 0.35) may indicate that the variable does not fit well into its component with other variables. Regarding component 4 I like to pay for products and services in cash (Communality=0.191 and actual weight 0.413), I check the prices of all products (even in everyday shopping) (Communality=0.215 and actual weight 0.413) and I like the help and kindness I can profits in local stores (Communality=0.205 and actual weight 0.406) may not fit well into their component with other variables (items). The SPSS report in the Table Pattern Matrix gives factor weight items (see Table 6), and we can see that for component 3 I buy/try new items first, I buy the latest product models online, When I choose between two products, I always choose what is modern does not have to be comfortable, I always have pieces of clothing that are according to the latest fashion /I like to buy products that are modern have the highest factor weights. The main items for component 4 are I like to see the product before I buy it, It is difficult to assess the quality of the product online, I buy in traditional stores (shopping malls).

In Table 6, we see that each variable gave a large factor weight to only one component, and each variable was given a large factor weight by a number of variables. Component 3 is defined by the following variables: I buy/try novelties first, I buy the latest product models online, When I choose between two products, I always choose what is modern, it doesn't have to be comfortable, I always have pieces of clothing that are in the latest fashion/I like to I buy products that are modern, I enjoy shopping online, I buy products online that are on sale. I buy products of well-known brands (because the brand indicates a certain quality), I buy products I see online, I buy groceries online, before I make a purchase I get information online, I buy even when I don't need anything, to buy products that are new and unique, A person can save a lot if they spend time in finding the best deals online, Local stores offer better prices than online stores called - *Fashion Consciousness*. Component 4 is defined by variables: I like to see the product before I buy it, It's hard to assess product quality online,

Figure 6: Pass diagram

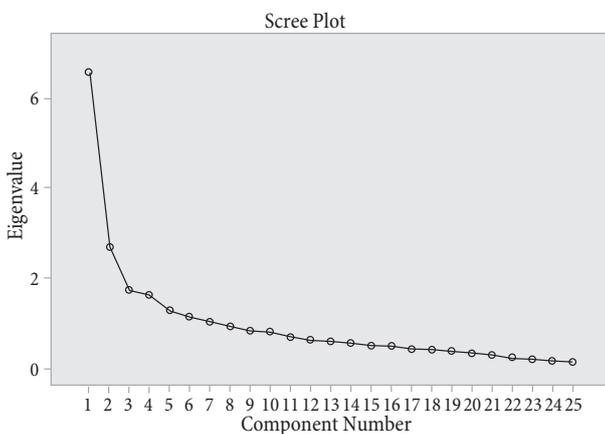


Table 5: Comparison of characteristic values obtained in Principal Components Analysis (PCA) and threshold values obtained in parallel analysis

Component number	Generated characteristic value from PCA	Value obtained by parallel analysis	Decisions
1	6.657	1.5202	accept
2	2.699	1.4313	accept
3	1.734	1.3666	accept
4	1.631	1.3076	accept
5	1.287	1.2575	accept
6	1.169	1.2054	reject
7	1.056	1.1518	reject

**Table 6: Factor weights and correlation matrix of variable factors for Principal Components Analysis (PCA) with Oblimin rotation two-factor solution for opinion items**

Variable	Pattern		Structure		Communalities
	Component 1	Component 2	Component 1	Component 2	
I buy/try novelties first.	.815	-.147	.779	.049	0.628
I buy the latest product models online.	.803	-.168	.763	.025	0.608
When I choose between two products, I always choose what is modern, it doesn't have to be comfortable.	.765	-.127	.735	.057	0.555
I always have pieces of clothing that are according to the latest fashion/I like to buy products that are modern.	.736	-.112	.709	.065	0.514
I enjoy shopping online.	.697	-.058	.689	.215	0.47
I buy products online that are on sale.	.677	.052	.684	.110	0.478
I buy products from well-known brands (because the brand indicates a certain quality).	.666	-.041	.658	.168	0.431
I buy products I see online.	.655	.010	.656	.119	0.433
I buy groceries online.	.626	-.152	.589	-.001	0.369
Before I make a purchase, I get information online.	.543	.158	.581	.288	0.361
I also buy when I don't need anything.	.527	.102	.552	.229	0.314
I also buy when I have no intention of spending money.	.479	.066	.509	.291	0.249
I try to buy products that are new and unique.	.466	.179	.495	.295	0.289
A person can save a lot if they spend time finding the best deals online.	.450	.187	.494	.181	0.278
Local stores offer better prices than online stores.	.411	.215	.463	.314	0.258
I use credit cards.	.385	.071	.402	.049	0.166
I like to see the product before I buy it.	-.211	.777	-.024	.726	0.57
It is difficult to assess the quality of products online.	-.208	.732	-.032	.682	0.505
I buy in traditional stores (shopping malls).	-.040	.664	.120	.654	0.43
When I buy a certain brand I like to visit several stores to compare models and price.	.004	.597	.148	.599	0.358
I like to pay for products and services in cash.	.076	.413	.236	.434	0.191
I check the prices of all products (even in everyday shopping).	.137	.412	.406	.444	0.215
I like the help and kindness I can get at local stores.	.127	.406	.224	.436	0.205
I always buy at the lowest price.	.318	.366	.176	.431	0.291
I buy groceries every day in the store.	.037	.312	.112	.321	0.105

I buy in traditional stores (shopping malls), When I buy a certain brand I like to visit several stores to compare models and price, I like to pay products and services in cash, I check the prices of all products (even in everyday shopping), I like the help and kindness I can get in local stores - *Shopping Preference*.

If we look at these four components, we can conclude that many consumers believe that overall productivity (of life) has increased with the development of the Internet. Younger generations, such as Generation Z, use the Internet 24/7/365. They collect, but also actively share information online. Their lifestyle chooses the technology they consider productivity for use, so we can conclude that the level of Internet involvement has a positive impact on the level of willingness to shop online (*Internet Involvement*). Also,

Generation Z, in addition to school, spends their free time on social networks. If the only one in the "club/school" does not use online shopping, the most common excuse for inactivity is that they do not know much about the possibilities provided by the Internet or that none of the friends buy online. This inactivity does not mean that they are not online, but that it is necessary to adjust the communication strategy in such a way that you should not be afraid of online shopping (*Inactivity*). Given that today consumer technology acts as a social and cultural catalyst for creating new trends, the analysis of consumers interested in fashion who tend to express positive attitudes towards technology also has a positive impact on the development of online shopping [31]. Based on the conducted analysis, we can conclude that in Generation Z in Serbia, fashion

has a significant positive impact on the development of online shopping (*Fashion Consciousness*). Generation Z consists of people who love online shopping and like to be innovators in shopping. Their lifestyle is compatible with technological products, because they are looking for products that make life easier, more practical and more productive. So we can conclude that the level of shopping preferences has a positive effect on the willingness to make online purchases (*Shopping Preferences*).

### Concluding remarks

The Internet has had a significant impact on communication between buyers and sellers. In recent years, many new digital means of communication such as email, banners, blogs, interactive television, search engine development, online communities, web conferencing and others, provide companies with benefits by promoting organization in an online environment emphasizing the importance of this medium through lower costs, flexibility, speed, high importance of the client who ultimately have control in the online environment, increased interactivity, rich amount of information, overcoming geographical boundaries and other possible obstacles that occur in the environment 24 hours a day, seven days a week. However, with the development of the Internet, we have come to a situation where a large amount of data appears, where only with good access we can use the information obtained for the successful operation of the company. Modern business requires the existence of integrated communications, and the Internet is a cheap means through which marketing managers can effectively access consumer information, achieve good segmentation and target consumers with a message that meets the requirements of that individual. Good knowledge of today's consumers/users of services, which due to the "speed of life" is often called instant consumers in the literature, is the basis for making good and timely business decisions in order to achieve competitive advantage. Marketing philosophy is changing, marketing is less and less in the function of encouraging sales, and more and more in the function of monitoring and understanding consumption.

When we analyze Generation Z, we can conclude that technology is the first thing we need to think about, because their teenage years were defined by iPod and MySpace, and their closest connections were made through Instagram and Facebook. Generation Z is the first generation to be raised in the era of smartphones, and many of them don't even know much about the time before social networks. At the same time, they create a document, edit it, post a photo on Instagram and talk on the phone, thanks to the user-friendly interface of their iPhone. They find the information they need quickly and with little effort, but this leads them to another extreme where they do not have time to critically examine the situation (ease of access to information negatively affects people's curiosity). They believe that everyone should always be available, because with constant connectivity and access to real-time information, Generation Z requires fast, frequent and personalized communication. They like sending SMS, they don't like voice calls because they take too much time between answers and they are more formal, that's why most of their communication takes place through technology, but they think that face-to-face communication is valuable. Generation Z uses Facebook, but Facebook is changing and is no longer so modern, but the usefulness of Facebook is a consequence of its wide integration with other platforms, websites and applications (e.g. Instagram, Snapchat). The preferred form of social media is Twitter, because it allows them to be informed about news in the world. They think that Facebook is for family, and Twitter is for friends. Generation Z students want to keep up with others rather than share information about themselves (they like to follow the lives of others). They like a combination of visual, audio, linguistic, spatial and musical strategies. The search for truth is at the heart of Generation Z's behavior and consumption. They are well informed about the brands that interest them, so companies must create a strategy based on diversity and uniqueness.

Since this paper is an integral part of the author's doctoral dissertation, the proposal for further development of the analysis is to include consumer lifestyle in the TAM model, because in the last 20 years, various studies have focused on identifying factors influencing ICT acceptance

used in online consumer analysis. The Technology Acceptance Model (TAM) presented by Davis [14], [15] has attracted the attention of the scientific community [32] and used is to study any kind of technological innovation. This model explains attitudes towards information technologies and predicts adoption intentions, and is also the most commonly used theoretical system in this area. However, although TAM has provided an understanding of the ICT acceptance system, a deeper understanding of the factors contributing to the acceptance of the Internet as a shopping channel is needed.

Numerous studies have included only a limited number of consumer lifestyle factors, so this study provided a detailed proposal as well as an analysis of Generation Z lifestyle factors. It is clear that members of Generation Z are similar in their characteristics throughout the world, but also intercultural differences could give an interesting description between members of Generation Z of different countries.

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