

EATING BEHAVIOURS OF GDYNIA MARITIME UNIVERSITY STUDENTS REGARDING THE CONSUMPTION OF BEVERAGES AS A SOURCE OF WATER

Aneta OCIECZEK¹, Witold KOZIROK^{2*}, Katarzyna KŁOPOTEK³

¹ Gdynia Maritime University, Faculty of Management and Quality Science; a.ocieczek@wznj.umg.edu.pl, ORCID: 0000-0003-0173-4439

² Gdynia Maritime University, Faculty of Management and Quality Science; w.kozirok@wznj.umg.edu.pl, ORCID: 0000-0003-0829-2733

³ Gdynia Maritime University, Doctoral School at Gdynia Maritime University; k.klopotek@wznj.umg.edu.pl, ORCID: 0000-0001-8339-7565

* Correspondence author

Purpose: This study aimed to characterise the nutritional behaviour of Gdynia Maritime University students in terms of consuming various types of drinks as a water source. Moreover, the aim was to analyse the determinants of these behaviours in the context of selected socioeconomic parameters that differentiate the studied group of respondents.

Design/methodology/approach: The tool used to conduct the study was a survey questionnaire. The questions concerned the nutritional behaviour of students regarding the consumption of beverages as a source of water and the conditions for their diversity.

Findings: The main source of water for students was mineral water. Unfortunately, it is associated with environmental pollution related to the packaging of this water (PET bottle). The second important source of water was tap water. This should be considered a manifestation of a developing trend in health-promoting, ecological and economic behaviours among the students. None of the socioeconomic factors differentiated students' behaviours when choosing bottled water.

Research limitations/implications: Students constitute a specific group of respondents. It should be expected that their current behaviours will reflect the behaviour of a wider society group, but only in the future. Therefore, the results obtained in this study can be considered limited, especially in the short term. Thus, this study should be conducted in a group of older respondents. Then, the following study should be repeated on older respondents in the distant future. On this basis, it is possible to verify how the change behaviours of respondents over time. The obtained results should allow us to verify the assumption that students' behaviours can be treated as indicators of the behaviours of the future society.

Practical implications: Consumers' eating behaviour regarding water consumption has health and environmental consequences. This approach to analysing water consumption is strategic because it concerns the direct and indirect impact on human health and quality of life.

Originality/value: The study results were used to formulate conclusions regarding behaviours that determine human health, the state of the environment and, consequently, quality of life.

Keywords: eating behaviour, bottled water, tap water, determinants of water choice, impact on the environment, freshwater deficit.

Category of the paper: Research paper.

1. Introduction

Water is a specific and dominant element of the Earth's natural environment. It determines and sustains the creation of life as we know it (Kardaś, 2019). Water is the main component of every living organism. This applies to the most primitive single-celled organisms up to humans. Therefore, every living organism must have constant access to water of appropriate quality because it determines well-being and, above all, life. Rising living standards during the Industrial Revolution, as well as the increase in global population, created the demand for energy and water. This has led to the intensification of the global water cycle, including its variability, global monsoon rainfall, and the intensification of wet water and dry phenomena (Popkiewicz, 2022). These phenomena are a derivative of climate change and will determine living conditions and their consequences for every living organism. What we see today was written over 20 years ago (Jackson et al., 2001).

Available freshwater resources are dwindling and are already declining in many parts of the world. In Poland, they are insufficient. These resources are decreasing not so much due to reduced rainfall intensity because rainfall in Poland remains at an even level but due to increased evaporation (Bănăduc et al., 2022; Popkiewicz, 2022; Wiech, 2023).

FAO data shows Poland has some of Europe's lowest water reserves (only the Czech Republic, Cyprus, and Malta have less). The condition is serious because it corresponds to the risk of water deficit below the "water stress" limit of $1.700\text{m}^3/\text{person}$. In Poland, water resources amount to $1.600\text{m}^3/\text{person}$. By comparison, there is approximately 4.500m^3 of water per European (GUS, 2022). Data indicates that by 2050, there may be a critical shortage of drinking water in the world if the necessary global changes are not implemented and water use habits are not changed (<https://www.national-geographic.pl>). WHO and UNICEF reports show that in 2020, 25% of the world's population did not have access to drinking water. By 2025, this problem may affect half of the population (<https://www.afro.who.int>).

Simultaneously, we should be aware that water is needed not only for drinking but also for production and the provision of services (Bănăduc et al., 2022). The Rankomat website aims to educate and spread knowledge about saving water resources. It states that the average Pole uses 92 litres of water daily. It is easy to determine this value because consumption is monitored. However, due to the consumption of goods, daily water consumption increases to thousands of litres. Actual water consumption, including its direct consumption and use in producing all types of goods (virtual water), determines the water footprint. Virtual water also comes from exhaustible freshwater sources. One Polish resident's average daily water footprint is estimated at 3.900 litres. This means that water consumption is consuming goods per kilogram or piece,

and clothing production is up to tens of thousands of litres per kilogram or piece, respectively. In the case of packaging, of which approximately 400 million tons are produced worldwide each year, water required for production is estimated at 650 to 800 billion m³ per year. Therefore, virtual water consumption is very high, although Poland does not lead in this regard (<https://rankomat.pl>).

The issue discussed in this work covers two essential aspects, both from the perspective of human health and the state of the environment, which determines its social nature. This study aimed to characterise the nutritional behaviour of Gdynia Maritime University (UMG) students in terms of consuming various types of drinks as a water source. The qualitative and quantitative dimensions of the water sources selected by students were considered. It was also important to determine the form of beverage packaging in the context of the potential environmental impact and convenience of use. Moreover, the aim was to analyse the determinants of these behaviours in the context of selected socioeconomic parameters that differentiate the studied group of respondents. The results of this study were the basis for formulating conclusions relating directly to behaviours that determine human health as well as the state of the environment that determines the quality of life.

The article is organised as follows. Part 2 characterises the object and tool of the research and the statistical methods of interpreting the results. Section 3 presents and discusses the empirical results and provides a discussion with relevant literature data. Finally, conclusions and health and environmental implications are presented in Section 4.

2. Experimental Methods

The research subject was UMG students of 2023, who represented all faculties of the University. The studied group of students consisted of 240 people. The socioeconomic profile of the study group is presented in Table 1.

Table 1.

Socioeconomic profile of the study group

Total	Gender		Cycles of study*		Faculty**				Financial situation			Place of residence		
	Woman	Men	I	II	E	M	N	MQ	< average	average	> average	Rural	City	
n	240	79	161	226	14	60	60	60	60	22	156	62	50	190
%	100	32.9	67.1	94.2	5.8	25.0	25.0	25.0	25.0	9.2	65.0	25.8	20.8	79.2

* I – Bachelor studies; II – Master's studies;

**E – Electrical Engineering; M – Marine Engineering; N – Navigation; MQ – Management and Quality Science.

Source: own calculations.

The tool used to conduct the study was a survey questionnaire. It included nine closed questions, six single-choice, and three multiple-choice questions. The questions concerned the nutritional behaviour of UMG students regarding the consumption of beverages as a source of water and the conditions for their diversity. Validation was carried out before using the questionnaire in the study, which included two main stages. The first one consisted of substantive verification of its content based on an interview with four experts in the management and quality sciences and food and nutrition technology. It was assessed as to how important individual elements of the tool (questions) were for the set goal and how they serve to achieve it. After verification, no question was removed from the scale. However, some questions have been reformulated according to experts' suggestions.

The second step was validating the response process (face validity). It assessed whether individual words or sentences in the questions were readily understandable to respondents. Respondents were asked to indicate words/sequences/entire questions whose meaning they did not fully understand. Thus, the connection between the proposed tool, consisting of questions, and the thought processes of people participating in the study was assessed. This validation stage was carried out on ten respondents representing UMG students. The questionnaire did not contain any elements that were incomprehensible to the respondents. Consequently, this validation step did not result in any changes to the questionnaire. The research instrument validated this way contained nine questions ready for use in the main study.

The paper presents the results of the analytical and synthetic exploration of primary data obtained from the survey. The analytical approach was used for questions 1, 3, and 9 and included (1) identifying the beverages chosen by the greatest percentage of respondents as a source of water, (3) indicating the types of water chosen by the greatest percentage of respondents, and (9) indication of factors determining the consumption of bottled water by the greatest percentage of respondents. The synthetic approach was used for the remaining questions. It included an assessment of the differences in the distribution of answers to questions regarding the amount of water consumed in pure form, preferences for bottled water, method of preparing tap water for consumption, preferences for water conditioned by the presence of CO₂, and the preferred type and capacity of water packaging. The results obtained were analysed taking into account gender, level of studies, faculty, place of residence, and subjective assessment of the respondent's financial situation. For this purpose, the χ^2 test was used. The assumed significance level was $p \leq 0.05$ (Łomnicki, 2014).

3. Results and discussion

The first analysed area of the study included determining the frequency of consumption of various types of drinks as a water source. This area is essential due to the critical role of water in human nutrition (Jarosz et al., 2020; Benelamand, Wyness, 2010). Considering that various types of drinks provide the body with not only water but also substances with a positive impact (antioxidants, electrolytes) and adverse effects on the human body, such as refined sugars. The source of the latter is mainly sweetened drinks. They contribute to a significant proportion of simple sugars in the diet (Park et al., 2022; Ah Han, 2021; Khan et al., 2020; Pepin et al., 2019; Jones et al., 2019). It was, therefore, necessary to determine which drinks were consumed most often and which were consumed least often. It was shown that 52% indicated still mineral water as the most frequently consumed drink. In second place was tap water, chosen by 51% of students. The third place was taken by milk/milk drinks, which was indicated by 38% of students. The least commonly consumed drink was bread acid (kvass), as shown by only 4.17% of respondents.

The described eating behaviours of students can be considered health-promoting and rational. Water consumption is a fundamental element of sound nutrition. Water is an essential substance that every living organism needs, which determines the physiological state of body homeostasis. The body's water balance consists of water supplied with drinks and food and metabolic water produced in cells through systemic metabolic processes (Szczepańska-Sadowska, 2018; Benelamand, Wyness, 2010). However, the primary source should be drinking water. Water needs vary depending on lean body mass (gender, body weight), age, level of physical activity, diet composition, physiological condition, air humidity, and altitude above sea level. In Poland, the daily water demand for adults in average climatic conditions, depending on gender, is from 2.0 to 2.5 litres (Yamada et al., 2022; Jarosz et al., 2020). The human body cannot store water, and its daily turnover reaches 1/30 of the body weight of adults and as much as 1/10 of the body weight of infants (Yamada et al., 2022; Shimamoto, Komiya, 2000). During exercise, water exchange increases proportionately to intensity and duration (Frączek et al., 2019). Therefore, systematically providing it appropriately is the starting point for maintaining physiological balance and good health (Kłos, 2016; Jarosz et al., 2020; Swanson, Pontzer, 2020).

The results obtained should also be viewed through the prism of the packaging of these drinks. They pose a potential burden to the environment (Zapata, 2021). The use of any packaging impacts the environment but also determines the properties of the packaged product (<https://rankomat.pl>). A comprehensive approach to the results showed that the drinks consumed by UMG students were most often packaged in PET (polyethene terephthalate) bottles. The beverages were consumed much less frequently in glass bottles. However, Tetra-Pak cardboard appeared sporadically. The mass production of PET bottles far exceeds the

possibilities of selective waste collection. Therefore, it can be assumed that the behaviours of beverage consumers and their attitudes toward the environment are critical factors determining the state of the environment (Borusiak et al., 2021). Publications indicate that the behaviours of Polish consumers in this respect differ far from those of highly developed countries. Therefore, their monitoring is justified and is a starting point for searching for methods for pro-ecological modification of these behaviours (Kopania, 2016; Walden-Kozłowska et al., 2003). It is important to remember that glass water bottles are used more often as packaging for water than cardboard. Imposing a deposit on glass bottles used as water packaging in Poland is not as popular as in other countries. This may result in their limited turnover and, consequently, in wasted opportunities to apply pro-ecological solutions. It should be emphasised that even glass waste, such as cullet, can be recycled, eliminating the problem of its recovery. Using glass scrap reduces energy consumption for producing and transporting raw materials and fuels (Vellini et al., 2009). The use of Tetra Pak cardboard packaging for water is the least common. Considering ecological conditions, it is a better solution than PET bottles because it is less environmentally harmful. The production of this packaging involves lower energy demand. This contributes to six times less fossil fuel consumption. Tetra Pak packaging comprises 75% paper, an advantage compared to commonly used PET bottles (Stramarkou et al., 2021). It should be emphasised that a significant percentage of respondents (51%) indicated that they most often drink tap water, and its use does not require packaging. This trend can be described as rational from the point of view of human nutrition but also as an ecological and economic activity (Borusiak et al., 2021; De Marchi et al., 2020; Mishra, Mohanty, 2018).

Water is the dietary component that must be provided in the highest quantity daily. Therefore, the next element of the study was to determine the amount of water consumed in pure form by the greatest percentage of students. It was also identified which of the socioeconomic characteristics of the study group significantly differentiated their behaviour in terms of the level of daily water consumption in this form. The most significant percentage of respondents (59%) said they consumed more than 1 litre of clean water daily. The results of the statistical analysis of the distribution of primary data showed that both the gender of UMG students ($\chi^2_{\text{calc.}} = 12.44$; $\chi^2_{\text{crit.}} = 7.81$), the level of studies ($\chi^2_{\text{calc.}} = 34.42$; $\chi^2_{\text{crit.}} = 7.81$), the faculty, where they study ($\chi^2_{\text{calc.}} = 21.04$; $\chi^2_{\text{crit.}} = 16.92$), place of residence ($\chi^2_{\text{calc.}} = 20.25$; $\chi^2_{\text{crit.}} = 16.92$) and financial situation ($\chi^2_{\text{calc.}} = 12.70$; $\chi^2_{\text{crit.}} = 12.59$) showed variation in the amount of water consumed.

Men declared a higher level of water consumption than women. This could probably be due to the greater demand for water in the group of men. A greater water demand is associated with greater body weight and a lower percentage of fat tissue determined by gender or a higher level of physical activity (Yamada et al., 2022; Borusiak et al., 2021). It was also found that second-cycle students (Master's studies) consumed less water than first-cycle students (bachelor studies). This statement should be considered disturbing, especially since most second-cycle students (64%) drank up to one glass of clean water daily (220-250 ml). This amount is

insufficient to ensure the proper functioning of the human body. At the same time, almost 61% of first-cycle students reported consuming more than one litre of water daily. Only this level of consumption can be considered appropriate from the point of view of human nutrition recommendations (Jarosz et al., 2020).

Moreover, it was found that students living in rural areas had lower water consumption than students living in metropolitan areas. One possible reason for this could be that those from rural areas are more likely to consume drinks other than water because of their relative novelty value. In the context of the results obtained, it seems justified to take action to promote the consumption of water. Additionally, the financial situation varied the amount of water consumed. People declaring their financial situation below average consumed the least water, but the amount consumed increased as their economic status improved. At first glance, this may seem to be paradoxical in terms of cost, but it may reflect more affluent students' access to improved education.

Because UMG students declared a relatively high level of water consumption, it was purposeful to determine the type of water they most frequently consumed. Respondents could indicate the three kinds of water they most often chose. The most significant percentage of respondents (55%) consumed still mineral water. Second in order was tap water (49%), and third was still spring water (30% of responses). The fewest respondents (0.4%) consumed flavoured water. The results indicate that although the eating behaviour of UMG students in this respect was rational (Jarosz et al., 2020), unfortunately, it did not fit into the concept of sustainable consumption because spring water was ranked third among the indications. This water has a composition similar to tap water. Its taste resembles tap water (Salomon, Regulska-Ilow, 2013). However, the packaging of spring water in a PET bottle seriously burdens the environment (Borusiak et al., 2021; Kłos, 2016). At the same time, the costs of consuming bottled spring water are much higher compared to tap water. The level of consumption of bottled water among UMG students was relatively high because the most significant percentage (49%) of respondents chose bottled mineral water overall. Therefore, an attempt was made to identify the socioeconomic parameters that differentiated the study group and which differentiated the type of bottled water chosen. However, the results of the statistical analysis showed that none of the factors differentiated the group of respondents (gender of students ($\chi^2_{\text{calc.}} = 2.00$; $\chi^2_{\text{crit.}} = 7.81$); faculty where they study ($\chi^2_{\text{calc.}} = 4.99$; $\chi^2_{\text{crit.}} = 16.92$); degree of studies ($\chi^2_{\text{calc.}} = 0.86$; $\chi^2_{\text{crit.}} = 7.81$); place of residence ($\chi^2_{\text{calc.}} = 6.63$; $\chi^2_{\text{crit.}} = 16.92$) and financial situation ($\chi^2_{\text{calc.}} = 6.74$; $\chi^2_{\text{crit.}} = 12.59$)) did not differentiate their behaviours regarding the consumption of bottled water.

The way UMG students prepared tap water for consumption was also examined because tap water is increasingly chosen as an everyday beverage. Although tap water is suitable for consumption by a healthy person without additional preparation, its quality may vary, and there may be indications of the need to improve its safety and quality (Abkar et al., 2024; Qian, 2018). For this purpose, various practices can be used, which involve filtering it using multiple types

of solutions (stationary, e.g., under-tap filters, or mobile, e.g., bottle filters) and boiling. Each of these solutions involves a modification of its chemical composition, sensory properties, and hygienic quality of water, but is also associated with certain costs and environmental burdens. Drinking tap water without treatment does not change its composition and sensory properties. They are determined by the quality of water present at the point of intake, the treatment plant's efficiency, and the water supply system (GUS, 2022). The results allowed us to conclude that most respondents (59%) filtered tap water before drinking it. Therefore, it can be assumed that there are reservations among UMG students regarding the quality of tap water. It could also be due to the popularity and fashion of drinking filtered water. Statistical exploration of the distribution of obtained results showed that students' behaviours in this area were very similar. None of the factors differentiating the studied population significantly differentiated these behaviours.

An important element of dietary behaviour is choosing the consumption of sparkling or still water. The results showed that the most significant % of students (75%) chose still water. It is a universal means of satisfying thirst, and there is a well-established belief in its health-promoting nature (Duda, 2012). The nutritional behaviours of the surveyed students in terms of preferring the choice of still water can be assessed as correct. This type of water quenches thirst very quickly. However, some sources indicate that sparkling water consumption increases significantly during summer (Duda, 2012). In addition to the amount of fluids consumed, the type of fluids also significantly impacts the ability to quench thirst. Generally, hypotonic fluids (200-250 mOsm/L), such as water, are perfectly absorbed from the gastrointestinal tract, dilute the plasma, and reduce the osmotic pressure of the blood, thus quickly quenching thirst (Frączek, 2014). However, when consuming sparkling water with a modified taste and exceptionally refreshing properties (Duda, 2012), the released carbon dioxide presses on the stomach walls and leads to a reflex inhibition of the feeling of thirst. Therefore, such water does not support adequate body hydration (Frączek, 2014). It should be taken into account that the results obtained could be strongly related to the season (early spring - April) in which the study was conducted. Another important feature of sparkling water is that it is safer from a bacteriological point of view. Its low pH significantly hinders the development of microorganisms (Korzeniewska et al., 2005; Wojtaszek 2006). A statistical assessment of the differences in the distribution of the collected results allowed us to conclude that only the student's place of residence was a factor differentiating their behaviours regarding the type of water they chose ($\chi^2_{\text{calc.}} = 60.87$; $\chi^2_{\text{crit.}} = 7.81$). Students from cities chose still water significantly more than sparkling water. It can be assumed that this tendency may result from the sensory attractiveness of sparkling water to village residents.

The study also examined the diversity of students' behaviours when choosing water in terms of its packaging type. The results showed that most students chose water packaged in a PET bottle (91%), while the smallest percentage (2%) chose water in cartons. The main reason for such diversity is the rare use of cardboard packaging and its common occurrence in PET

packaging. Kopania (2016) showed that PET packaging is the most frequently used packaging in the bottling industry. This type of bottle takes 100 to 1000 years to decompose in the natural environment. Hence, the conclusion is that PET packaging is very harmful from an environmental point of view. In addition, approximately 1.9 kg of crude oil and much energy are used to produce 1 kg of this type of packaging. Unfortunately, these facts do not limit their production, which is still vast. At the same time, attention should be paid to the advantages of PET packaging compared to glass packaging: low weight, high plasticity and resistance to mechanical damage. The statistical analysis of data distribution indicated that gender, faculty, and place of residence did not differentiate students' behaviours in this area. However, the degree of studies ($\chi^2_{\text{calc.}} = 16.67$; $\chi^2_{\text{crit.}} = 5.99$) and the financial situation ($\chi^2_{\text{calc.}} = 11.74$; $\chi^2_{\text{crit.}} = 9.49$) turned out to be factors that statistically significantly differentiated behaviour regarding the choice of water, taking into account the type of its packaging. Older students chose water in PET packaging. This may be related to the need to be comfortable while using it. Students declaring a better financial situation also chose water in PET bottles. However, it could be assumed that people with a higher economic status would more often consume more expensive mineral water, usually in glass bottles. In this case, convenience of use and the cost of purchase were probably the deciding factors in the choice of water. The type of water consumed was, therefore, not an important element of the lifestyle of UMG students. It was not intended to promote oneself as a person of high status, high sensory requirements for the water consumed, or to distinguish oneself from the group otherwise.

In the modern world, even drinking bottled water can be a vital element in building an image by following current trends or temporary fashions (Ballantine et al., 2019). For a long time, bottled water has been available in the Polish market and elsewhere, allowing you to stand out. For example, Borjomi mineral water comes from the depths of a volcanic spring, with a unique taste, microbiological purity, and properties resulting from its unique chemical composition. It is classified as one of the best waters in the world. This water was promoted in 1890 by Grand Duke Michael Romanow. This water is relatively expensive compared to others available on the Polish market. Another example may be Bling H₂O water, classified as a luxury, for which one must pay more than alcohol. One 0.75 litre bottle of Bling H₂O water, mined in Dandridge, costs around \$40-50. This brand's water packaging is also important - the bottle is decorated with Swarovski crystals, significantly affecting the final price. Another example of an opportunity to stand out is to buy mineral water from the Arctic, which used Cindy Crawford's image. The point is for consumers to associate it with a healthy lifestyle and fitness philosophy. Therefore, these waters are not very expensive and cannot be used to emphasise the consumer's economic status. They undoubtedly indicate a particular lifestyle and adherence to values such as health (Nowakowska-Kutra, 2014).

Another analysed area concerned the packaging capacity in which UMG students most often bought water. The results showed that almost half of the students (45%) bought water in a 1.5-liter package. Statistical analysis of the data using the χ^2 test allowed for the conclusion

that both the gender of the students ($\chi^2_{\text{calc.}} = 15.27$; $\chi^2_{\text{crit.}} = 11.07$) and the faculty at which they study ($\chi^2_{\text{calc.}} = 35.39$; $\chi^2_{\text{crit.}} = 25.00$) and the degree of studies ($\chi^2_{\text{calc.}} = 25.00$; $\chi^2_{\text{crit.}} = 11.07$) differentiated their behaviours in terms of the capacity of the unit package of purchased water. Only place of residence and financial situation were factors that did not determine the choice of packaging capacity. It was found that more female students than male students purchased water in 0.7-litre packages. This could be due to their lower weight and convenience, which may be more important for women. It was also found that a more significant percentage of first-cycle students chose water in 1.5-litre packages. The highest availability on the market characterises water sold in packages of this capacity and is relatively cheaper than water in packages of smaller capacity. Therefore, this is a rational and economically justified action for people who consume large amounts of water and buy it in more oversized packaging (Ballantine et al., 2019). Additionally, it was found that a more significant percentage of students studying at the Faculties of Electrical and Mechanical Engineering purchased bottled water in 1.5-litre packages compared to students of the other two faculties. This finding is quite surprising. It could be expected that students studying at the Faculty of Management and Quality Sciences should be more aware of the values of individual types of water consumed, the impact of water packaging on the environment and the economic consequences of their choices.

The last aspect of eating behaviours and their determinants examined was to identify the factors determining the choice and consumption of a specific type of water. As a result of the research, it was found that the most significant percentage of students (60%) declared that the most important factor for them when choosing water was their habit of drinking a specific type of water. A slightly smaller percentage of students (59%) indicated that the capacity of the packaging determines the choices they make. The least important factor was the taste of water. About 55% of respondents indicated it as a significant factor when choosing and consuming water. However, the least important factor when choosing and consuming a specific type of water was trend/fashion. Only 7% of respondents indicated that fashion is very important to them.

An in-depth analysis of the factors determining the choice and consumption of a specific type of water showed that many respondents indicated habituation to the type of water consumed. However, it was more important for women, city students, students of the Faculty of Management and Quality Science, first-cycle students and students with a lower-than-average financial situation (Fig. 1). The second most important factor was the packaging capacity. It was more important for women, students from the village, students of the Faculty of Management and Quality Science, first-cycle students and students with a lower-than-average financial situation. In third place, taste characteristics were indicated to be more important for women, especially for city students, Faculty of Management and Quality Science students, and second-cycle students. The taste characteristics of water were equally important to students regardless of their declared financial situation. However, it is important to note that students who declared their financial situation to be lower than average paid more attention to

price than taste. Fashion was the least important factor in choosing water in the following groups: men, first-cycle students living in the village, studying at the Faculty of Electrical and Marine Engineering, describing their financial situation as average or below average. This analysis allows us to conclude that habit is second nature to a rational consumer who considers the convenience of packaging size. However, the taste of water is important to him only when its price is adequate to his financial situation. At the same time, water is not a product whose consumption serves to promote oneself and is not an element of fashion trends. However, considering its health and environmental importance, it can be assumed that it will become an element of the so-called quiet luxury. Ballantine et al. (2019) carried out similar research on consumers' choice of bottled water and reached similar conclusions.

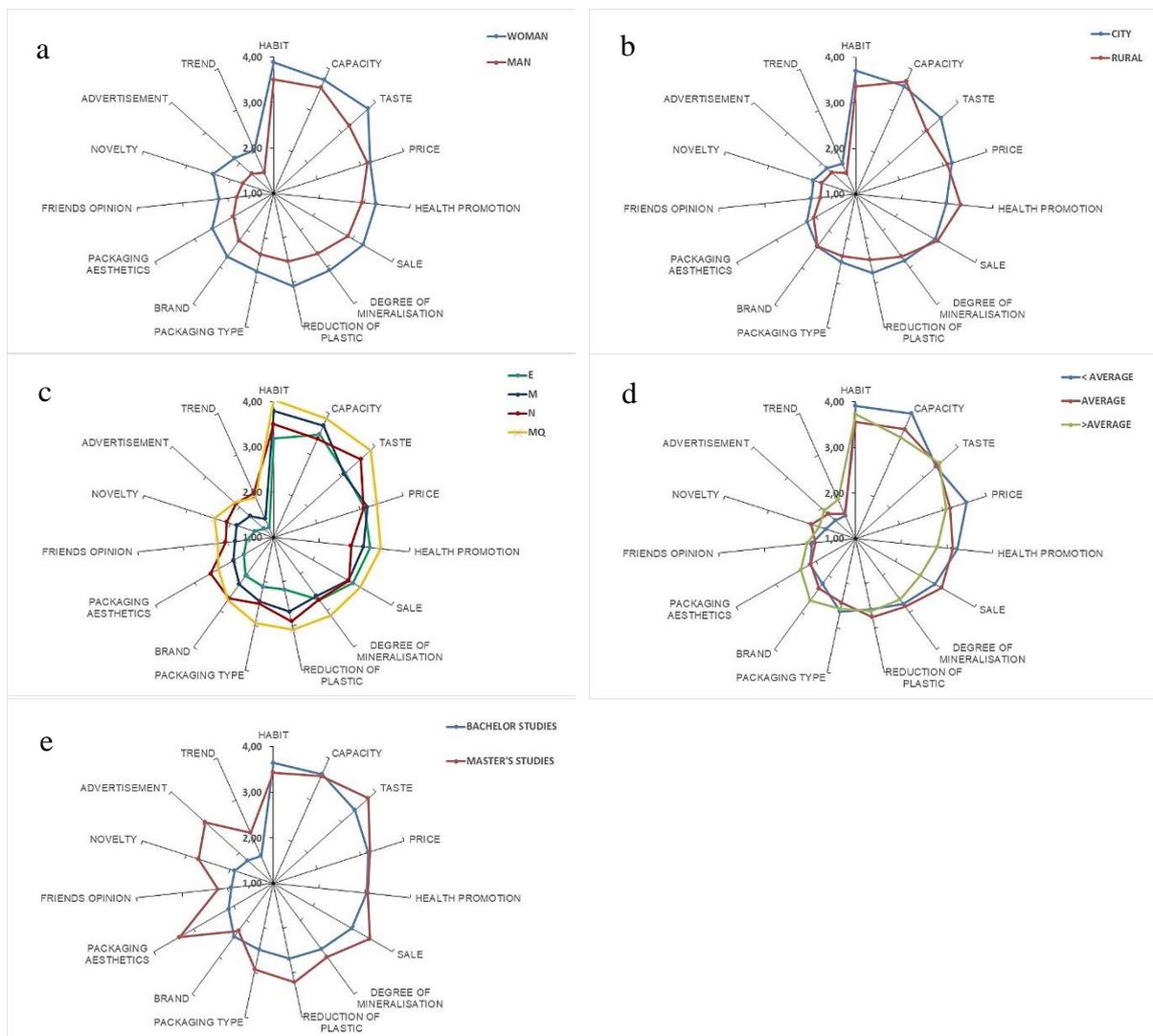


Figure 1. Factors determining the choice and consumption of a specific type of water chosen by: a) gender; b) place of residence; c) the faculty at which they study; d) financial situation; e) cycle of study.

Source: own elaboration.

4. Summary

The main source of water for UMG students was still mineral water. This choice is part of the trend of proper human eating behaviours. Unfortunately, it is associated with environmental pollution related to the packaging of this water (PET bottle). The second important source of water in the diet of UMG students was tap water. This should be considered a manifestation of a developing trend in health-promoting, ecological and economic behaviours among the UMG students. None of the socioeconomic factors differentiated students' behaviours when choosing bottled water. This may prove the universal nature of this water source. Students constitute a specific group of respondents. They are young and already relatively well-educated. It should be expected that their current behaviours will reflect the behaviour of a wider society group, but only in the future. Therefore, the results obtained in this study can be considered limited, especially in the short term. Thus, the study using the same research tool should be conducted in a group of older respondents (over 50 years of age). The results obtained should be compared with the results of this work in order to verify the assumption that the behaviours of these two groups of respondents will be significantly different. Then, the following study should be repeated on respondents over 50 years of age in the distant future (e.g. in 10 years). Later, it would be necessary to compare the results of this work and those planned for the near future. On this basis, it is possible to verify how the behaviours of respondents over 50 are changing. The obtained results should allow us to verify the assumption that students' behaviours can be treated as indicators of the behaviours of the future society.

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