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Consumer Attitudes and Behaviour Towards Energy Drinks

Summary

The aim of the paper is to identify selected consumer behaviours and attitudes towards “energy drinks” (ED). The article presents results of research into consumer attitudes and behaviours in the ED market and their determinants. The study used a questionnaire method and the selection of the study population was random and involved a group of 507 people of various age, gender and educational levels. In the area of behaviour, *inter alia*, the frequency of purchase and the type of purchased EDs, as well as the preferences for and determinants of their purchase and consumption were assessed. The study participants showed a considerable diversity in the frequency of consumption and the distribution of the obtained data suggested the occasional use of this group of beverages. More than 18% of respondents declared that they had not consumed EDs at all. The reasons for consuming these beverages varied, and were dependent upon the age. Younger respondents more frequently indicated the taste qualities and the desire to quench the thirst, while the older respondents indicated the need to get stimulated and to combat fatigue. The most popular brands were as follows: Tiger, Red Bull, Be Power, Black, Rock Star, Monster. The main determinants of the choice of an ED included, in the following order: the taste qualities, a source of energy potential, confidence in the brand and the manufacturer, the price and functional properties. The respondents’ attitudes towards EDs were neutral, tending to negative, and corresponded to the frequency and levels of consumption. The diversity in ED consumer behaviours indicates the need to take these differences into account in the product offering. In addition, it is worth considering activities aimed at increasing consumer confidence in such a product offering. This is research article.

Key words: consumer attitudes, consumer behaviour, energy drinks, determinants of the choice.

JEL codes: D01, I12

Introduction

“Energy drinks” (EDs) are a rapidly developing segment of the soft drink market, with good prospects of development and steadily increasing sales. They have been put on the market as food for particular nutritional uses. These beverages are frequently equated with sports drinks but they are dedicated to all adults during periods of increased mental effort or vigorous physical activity. Their role is to stimulate the human body in order to enable one to maintain or increase its physical efficiency under conditions of long-term mental and physical strain and to restore the mental and physical potential (Godala et al. 2013; González et al. 2012). These specific effects allow this group of beverages to be classified as func-

tional products. The main purpose of EDs is to provide not only readily available energy but, primarily, psychostimulant substances which maintain high psychomotor activity, improve reflexes and concentration, stimulate the body and avoid fatigue (Miśniakiewicz, Cichoń 2012). The specific functionality of EDs is determined by their content of biologically active substances, plant extracts, minerals and vitamins playing a significant role in the metabolism of energy substrates and supporting the nervous system (Cichocki 2012; Hoffmann, Świdorski 2008). Energising drinks owe their name to the expected effect of stimulation which, by assumption, is intended to be the main effect of this product. The name in question is only a commercial term, and is not legally classified by the EU. The lack of relevant regulations in this regard contributes to different classification of the beverages concerned in various countries. In Poland, similar to France, Belgium and Germany, EDs are classified as refreshing drinks, and as such have been placed on the market and function in the course of trade (Garus-Pakowska et al. 2015). In view of the active ingredients contained in EDs, which may interfere with biochemical and physiological processes, and even exhibit toxic effects, they should be consumed carefully and sensibly, particularly by children and adolescents (Reissig et al. 2009). Therefore, ED manufacturers recommend that these beverages should be consumed by people over the age of 16 (Cichocki 2012). In Poland, there are no regulations restricting the sale of the beverages concerned to children and adolescents under 16 years of age; therefore, these beverages are legally offered for sale to the general public and are available to all consumers with no restrictions (Górnicka et al. 2014; Kozirok 2016a; 2016b; Reissig et al. 2009; Seifert et al. 2011). What is more, marketing activities promoting energising drinks are primarily addressed at young consumers who currently are the main clientele of ED manufacturing concerns. Data collected in 2011 in 16 countries UE by European Food Safety Authority (EFSA) indicated that EDs were chosen by 68% of young people aged 10–18, 30% of adults, and 18% of children aged below 10 years (Motyka, Marcinkowski 2015).

The ED market in Poland and worldwide

One of the first EDs entered into commerce was a beverage called “*Lipovitan*” manufactured in the 1960s in Japan, whose “enhanced” version contained from 2 to 3 g of taurine and 300 mg of arginine (Cichocki 2012). The currently manufactured EDs are typically based on two brain-boosting substances, i.e. caffeine and taurine and, to a lesser extent, on other biologically active substances. Manufacturers try to outdo one another in acquiring new customers, focusing mainly on indicating the benefits of the use of energy drinks while omitting potential hazards (Czarnecki, Sosnowska 2015). Due to these actions, an ever-increasing range of this group of beverages find their way to the market with a very efficient support of the applied marketing tools (Motyka, Marcinkowski 2015; Reissig et al. 2009).

The ED market is among the most rapidly developing segments of the soft drink market, both worldwide and in Poland. The first EDs placed on the market in the 1960s failed to arouse much interest. Since the introduction of a product called “Red Bull” on the US

market in 1997, a gradual increase in its consumption has been observed. By 2006, a total of approx. 500 new ED brands were placed on the market worldwide (Motyka, Marcinkowski 2015). It is estimated that in 2010 in the USA, approx. 6 billion units of such beverages were purchased (Wolk et al. 2014). In 2013, the global ED market was valued at PLN 155 billion (Czarnecki, Sosnowska 2015). In 2015, the global ED market reached, in terms of volume, a level of 8.8 billion litres, and global sales of these beverages exceeded 38,2 billion €. It is forecast that over the next 5 years, the value of this market will rise by approx. 40% (53,4 billion €), with an increasingly dominant impact of the Chinese market. As regards this particular market, it is assumed that the sales of EDs will more than double, from the level of 6 billion € to 12.4 billion € in 2020. Currently, the largest market for the sale of energising drinks is the United States (12.4 billion €) followed by the Asia-Pacific region (10.1 billion €), West European countries (7.3 billion €), Latin America (3.8 billion €), Middle East and Africa (1.8 billion €), and Eastern Europe (1.5 billion €) (Portal spożywczy 2016b). Market analysts also point out that the average consumer age has been changing and that the range of such soft drinks has been expanding. These beverages are being selected by younger and younger consumers and the restrictions and bans on advertising and promotion, as well as bans on selling energy drinks to minors, seem to have no significant effect on the value of the market. Another fact deserving special consideration is the growth rate of the product offering based on expanding the flavour offer, developing particular functional characteristics and technological innovations aimed at making them seem health-promoting products (Portal spożywczy 2016b).

On the Polish market, EDs emerged in the 1990s and a number of consumers started consuming them regularly. Even though this segment has a relatively small share in the soft drink market, their sales are very dynamic. At the turn of the last decade, a significant increase in the consumption of energy drinks was noted. In the period between 2006 and 2008, the value of the ED market increased in Poland 2.5-fold, reaching a level of PLN 657,1 billion. In 2013, another increase to a value of PLN 765 million was noted, and in the next year, an increase by 10.5% was again noted, which translated into a value of PLN 874 million (Garus-Pakowska et al. 2015). Market research has shown that on the national level, more than 336 million of units of EDs (bottles, cans) were sold at that time, which represented sales of 126 million litres, and, in quantitative terms, an increase by 15.7%. In 2015, the value of the ED market in Poland increased by further 10.6% on the year-to-year basis, and this trend persists. The data of AKB Consulting for 2015 suggests that in the classification of the level of ED consumption in Europe, Poland took 13th place in the ranking (approx. 3 litres per capita). According to estimates of the company "Food Care", the value of the ED market in Poland is currently at a level of approx. PLN 994 million, and the market is dominated by three brands, namely: Black, Red Bull i Tiger. The rest of the sector is very fragmented and has up to several dozen entities. It is forecast that over the next few years, the value of the domestic ED market will exceed PLN 1 billion (Czarnecki, Sosnowska 2015; Gargul 2016; Garus-Pakowska et al. 2015; Portal spożywczy 2016a; 2016b).

The aim of the study was to analyse the attitudes and behaviours of consumers EDs, taking into account the factors determining the consumer choices of these food products.

Material and methods

The study employed the diagnostic survey method, using an original questionnaire. The questionnaire consisted of a general part and a part specifying the descriptive characteristics (the socio-demographic profile) of the respondents participating in the study. It included questions concerning attitudes towards EDs, the characteristics and distinguishing features which determine customers' choices of such products, as well as the frequency of consumption and the types of the most commonly consumed EDs. In order to determine the attitudes towards EDs, a scale containing 16 statements was used, including adjusted statements taken from the scale for investigating attitudes towards functional food (Urala, Lähteenmäki 2004). A rating scale and a 7-point Likert scale were used. The provided answers were quantified by assigning numerical values to particular levels of the scale, from 1 for complete rejection (I definitely disagree) to 7 for complete approval (I definitely agree). In the event of an opposite meaning, re-coding was applied (statements: 1, 7, 9, 11-13, 15, 16). Numerical intervals describing particular attitudes were established: negative - $<1.0\div 2.99$); neutral - $<3.0\div 4.99$); positive - $<5.0\div 7.0$). In assessing the significance of factors determining the choice of an ED, numerical values were assigned to each answer, from 1 (it is of no significance) to 5 (it is of great significance), and then the arithmetic mean was calculated. The following factors were analysed: taste and smell qualities; a source of readily available energy substrates; confidence in the manufacturer; brand loyalty; the price; functional characteristics; being accustomed to a product; availability; attractiveness and functionality of the packaging; fashion and prevailing trends; curiosity about a product; the composition of a product; quantitative and qualitative contents of biologically active substances; opinions of acquaint-

Table 1

Socio-demographic profile of the study population, included the frequency of consumption ED (%)

Criterion	n	Frequency of consumption				Not consume	χ^2
		several times a week	once a week	several times a month	less		
Total	507	21.4	14.2	18.5	27.2	18.5	p
Woman	261	18.4	16.1	18.0	27.2	20.3	0.313
Man	246	24.8	12.2	19.1	27.2	16.7	
<16 years	107	23.4	13.1	16.8	29.0	17.7	0.014
16÷19 years	149	22.8	13.4	8.7	30.2	24.9	
20÷25 years	101	17.8	15.8	27.7	28.8	9.9	
> 25 years	150	21.3	14.7	23.3	22.0	18.7	
< Secondary	259	22.0	13.5	13.1	31.7	19.7	0.060
Secondary	166	25.9	15.7	22.9	20.4	15.1	
Higher	82	11.1	13.4	26.8	26.8	21.9	

Source: own research.

ances and friends and the significance of advertisement messages. The selection of the study population was random, and involved a group of 507 people of various ages (respectively: young people aged < 16 years, secondary school adolescents, students, people aged > 25 years), gender and educational level from the city of Tri-city (Trójmiasto) and the surrounding areas (Table 1). People declaring that they consume EDs (N=413) were included in the main study. In turn, people who stated that they had not consumed and did not consume EDs (n=507) were only included in the basic study. An analysis of the results was carried out taking the following criteria into account: gender, age, a declaration of the frequency of the consumption of EDs and educational level. Statistical analysis of the empirical material was carried out based on the χ^2 test, with the significance level assumed to be $p \leq 0.05$.

Results

Selected behaviours of energy drink consumers

In the opinion of experts in nutritional safety, the consumption of EDs, especially frequent and regular one, causes many concerns and controversy. An analysis of the consumption of EDs by the study participants demonstrated that the respondents selected them, most frequently, “several times a year or less” or “several times a month”. Almost 1/5 of the respondents (18.5%) declared that they had not consumed and did not consume them at all. The distribution of the data may suggest the occasional use of this group of beverages by the people participating in the study. It must be presumed that selecting an ED is an act on impulse, and that it occurs sporadically or periodically. At the same time, attention should be paid to the relatively high percentage of study participants who selected EDs on a daily basis or even several times a day (9.9%). They were principally men (15.0%_{Men} vs. 9.1%_{Women}), young people aged < 16 years (19.3%), and secondary school adolescents (14.3%). The statistical analysis demonstrated that the respondents’ educational level and age significantly differentiated the frequency of ED consumption ($p=0.001$ and $p=0.05$, respectively). The reasons for which the respondents consumed EDs varied and were mainly dependent on the age groups. The main reason for selecting EDs were, respectively: to stimulate the body and combat fatigue or sleepiness (37.5%), to quench thirst (28.1%), taste qualities (27.6%) and curiosity about the product (16.5%). Younger respondents (< 19 y.o.) significantly more frequently ($p<0.001$) indicated the taste qualities and a desire to quench thirst, while students and people aged over 25 years primarily indicated the need to be stimulated and to combat fatigue. For students, the consumption of EDs was primarily associated with examination sessions and the need for long-term studying and/or working, as well as with social gatherings, during which EDs were quite often combined with alcohol (49.1% of respondents). The increasingly common practice of combining EDs with alcohol has drawn the attention of many authors (Błaszczuk et al. 2013; Garus-Pakowska et al. 2015; Godala et al. 2013; Motyka, Marcinkowski 2015). Among students, fatigue as the main factor contributing to the consumption of EDs was indicated by Michota-Katulska et al. (2014). In turn, in a study by Rój et al. (2011), almost all young athletes participating in the study indicated, as their

reason for the use of EDs, the desire to increase their capacity for physical stress and to eliminate the feeling of tiredness and sleepiness. Atilla i Cakir (2011) concluded in their study that students primarily consumed EDs in order to: be stimulated, enhance physical performance, improve concentration and combat sleepiness. It is worth mentioning that the use of hypertonic EDs in the process of thirst quenching is, from the physiological perspective, counter-effective. However, numerous studies indicate the use of EDs for this particular purpose (Miśniakiewicz, Cichoń 2012; Semeniuk 2011; Kozirok 2016a; Górnicka et al. 2014). Many researchers draw the attention to the characteristic significance of the taste of EDs. A study by Cichocki (2012) demonstrated that among middle and high school students, the taste was the most common reason for the consumption of EDs. In turn, a study by Błaszczuk et al. (2013) showed that for 78.6% of rural young people from the Bieszczady Mountains area participating in the study, the prerequisite for choosing and consuming EDs was their taste. In another study carried out on a group of people attending a gym in the city of Łódź, almost 2/3 of the respondents declared that the main criterion they adopted when choosing an ED was the habit, strongly determined by the taste and confidence in the manufacturer (Godala et al. 2013). In the context of obtained data, the authors noted the element of fixed patterns of behaviour, the consequence of which may be a specific type of dependence.

In addition to the frequency of ED consumption, it is of significance to determine the volume of a serving consumed on a one-off basis. EDs are available in units with a capacity ranging from 50 ml (the so-called *energy shots*) to the most commonly found units with a capacity of 250 ml, 750 ml i 1,0 liter. The respondents most often declared that, on a one-off basis, they consumed a volume of an ED equal to 250 ml (68.3%). One-off consumption of 500 ml of an ED was declared by 15.9% of the study participants, and the one-off consumption of as much as 1 litre was declared by 5.1%. The consumption of such a large volume of ED was typical of people aged over 20 years. An interest in *energy shots* was demonstrated by 7.5% of the respondents. It was shown that men statistically more frequently ($p=0.003$) chose larger volumes of an ED. The study participants aged over 20 years and people with lower educational levels consumed larger volumes of EDs equally more frequently ($p=0.001$). A study by Michota-Katulska et al. (2014), carried out on a group of students under increased mental and physical strain obtained similar data. Approx. 77% of students declared one-off consumption of 250 ml of ED, 18% – 500 ml, and 5% declared the consumption of more than 750 ml. Similarly, in a study by Godali et al. (2013), people exercising in a gym in most cases (64.1%) consumed, on a one-off basis, 250 ml (64.1%) and *energy shots* (20%). In the author's own study, women significantly more frequently ($p=0.001$) than men drank, on a one-off basis, a volume equal to one can of ED (respectively, 77.5% vs 59.2%). Almost 1/3 of men and 15.8% of women declared, that on a one-off basis they drank more than 250 ml of ED.

EDs available in the market are characterised by very differentiate prices, from relatively expensive to several times cheaper ones. Numerous studies suggest that one of significant factors affecting purchasing decisions and the choice of a specific product is its price (Garus – Pakowska et al. 2015). The economic aspect is of significance, irrespective of the type of a product being purchased, particularly for consumers with limited incomes (school-age

youth and students). While discussing this issue, it needs to be considered that it is just youth and young adults who are the main consumers of EDs. An own study demonstrated that 53.8% of the study participants spent approx. PLN 10,- for the purchase of an ED, 35.3% – up to PLN 20,-, and every tenth respondent approx. PLN 50,-. Such variables as the respondents' age and frequency of consumption highly significantly ($p < 0.001$) affected the amount earmarked for the purchase of an ED, while for the gender and educational level, a less significant relationship was demonstrated ($p = 0.015$ and $p = 0.026$, respectively).

Preferences for particular energising drink brands

The study participants expressed their views on the favourite ED brand, which, as can be assumed, indicates conscious and deliberate choices. The most popular ED brands preferred by the respondents and most often reached for by them include, in the following order: Tiger (64.2%), Red Bull (51.6%), Be Power (48.4%), Black (31.2%), Rock Star (31.0%), Monster (12.8%) and other (Table 2). The shift between the first and second place concerns people aged over 25 years and with higher education level. Apart from these two cases, the most frequently preferred brand was Tiger. This may result from the consumers' habits and

Table 2

Preferences brands of energy drink (% of declarations)

Brand*	Total	Gender**		Age (years)				Education			Frequency of consumption			
		W	M	<16	16÷19	20÷25	> 25	< secondary	secondary	higher	several times a week	Once a week	several times a month	less
I	51.6	47.1	56,6	47.7	50.9	48.4	57.4	45.7	54.6	65.6	55.0	44.4	48.9	54.3
II	64.2	65.9	62.4	64.8	77.7	67.0	49.2	67.8	62.4	56.3	65.1	73.6	59.6	61.6
III	31.2	30.8	31.7	17.0	22.3	42.9	41.0	18.8	46.1	39.1	33.9	36.1	27.7	29.0
IV	48.4	46.2	50.7	59.1	63.4	37.4	35.2	62.5	34.8	32.8	56.9	61.1	41.5	39.9
V	31.0	33.2	29.3	37.5	33.0	27.5	27.0	38.5	23.4	25.0	29.4	34.7	25.5	34.1
VI	12.8	13.9	12.2	6.7	5.4	22.0	22.1	8.2	19.1	15.6	16.5	11.1	16.0	8.7
VII	4.1	5.3	2.9	2.1	1.8	6.6	7.4	1.0	4.3	14.1	0.9	1.4	6.4	6.5
VIII	6.1	6.7	5.4	1.0	1.8	17.6	5.7	1.0	9.2	15.6	10.1	5.6	7.4	2.2
χ^2	p	0.569		<0.001				<0.001			0.715			

* – I. Red Bull, – II. Tiger, – III. Black, – IV. Be Power, – V. Rock Star, – VI. Monster, – VII. Green Up, – VIII. other.

** – W – woman, M – man

Source: like in Table 1.

preferences, but an additional factor affecting the choices could have been the price. The distribution of consumer preferences for ED brands was significantly affected by the age and educational level of the study participants ($p=0.01$). A similar positioning of the above-mentioned ED brands, particularly those on the first and second place in the ranking, was indicated in other studies (Błaszczuk et al. 2013; Miśniakiewicz, Cichoń 2012; Semeniuk 2011). Therefore, one may assume that it confirms the stable and dominant position of these brands on the market.

Consumer attitudes towards energy drinks

One of the factors which may be of great significance in shaping a consumer's behaviour is their attitude towards a product. The relationship between the attitude and the behaviour does not have to be obvious. A positive or negative attitude does not have to translate directly into a specific behaviour, but it may predispose a consumer to particular behaviours. The inconsistency of consumers' attitudes and behaviours was described in the source literature (Jeżewska-Zychowicz, Pilska 2007). Table 3 presents mean point values describing respondents' attitudes towards EDs. As suggested by the study, a group of respondents participating in the study was characterised by a neutral attitude towards this type of food products, with a clear trend to a negative attitude. Taking into account the mean value adopted for the entire study population and all 16 statements, values ranging from $\bar{x} = 2.61$ to $\bar{x} = 3.73$ were obtained. This kind of an attitude may be explained by many factors, including: a lack of confidence; concerns about health; doubts about the safety of these products; fears of unknown products; or unpleasant experiences. The respondents who declared that they did not consume EDs justified their decision with the strong conviction that: EDs may be, and are, harmful (63.9%); EDs do not satisfy their taste preferences (14.9%); EDs cause cardiovascular diseases (9.7%); EDs are responsible for ill-being (9.3%); almost $\frac{1}{4}$ of the respondents declared that so far they had had no opportunity to try an ED, and that they were not interested whatsoever. More than 36% of respondents declaring that they do not consume EDs declared that they did not rule out the consumption of such beverages in the future. Differences were demonstrated in the attitude towards EDs, depending on the gender ($\bar{x} = 3.09_{\text{Woman}}$ vs. $\bar{x} = 3.45_{\text{Man}}$), age ($\bar{x} = 3.13 \div \bar{x} = 3.40$), educational level ($\bar{x} = 3.16 \div \bar{x} = 3.33$) and the frequency of consumption ($\bar{x} = 2.9 \div \bar{x} = 3.95$). As regards the criteria of gender, age and educational level, the differences were insignificant and indicated the predominant share of neutral attitudes. In turn, the adopted criterion of the frequency of consumption revealed significant differences in the respondents' approach to EDs. As regards the study participants declaring that they do not consume EDs, negative attitudes were dominant ($\bar{x} = 2.9$), which should be considered as logically consistent. In turn, attitudes of the respondents consuming EDs with a frequency of once a week were neutral, with the concentration around the central value of this range ($\bar{x} = 3.95$), while the approach of the study participants declaring a great frequency of the ED consumption (on a daily basis and several times a week) was neutral, with a trend towards negative attitudes ($\bar{x} = 3.16$). In general terms, the analysis of attitudes towards EDs corresponds with the occasional consumption

of EDs and a slightly greater interest in EDs expressed by male study respondents aged over 25 years and with a higher education level (Table 3).

Table 3
Consumer attitudes towards EDs

statement *	Total	Gender**		Age (years)			Education			Frequency of consumption				
		W	M	16-19	20-25	> 25	< secondary	secondary	higher	several times a week	Once a week	several times a month	less	Not consume
1	3.02	2.59	3.70	3.49	3.08	3.15	3.12	2.99	3.43	3.84	3.25	2.99	2.82	2.57
2	3.00	2.95	3.30	3.18	2.90	3.38	3.10	2.86	3.29	3.29	2.86	3.63	3.08	2.63
3	3.41	3.35	3.70	3.82	3.13	3.83	3.80	3.21	3.65	4.14	3.86	3.75	3.35	3.11
4	2.94	2.93	3.30	2.55	3.00	3.48	2.50	3.21	3.15	3.00	3.00	3.50	3.10	2.44
5	2.80	3.07	3.07	2.91	2.90	3.31	3.10	2.90	3.21	4.00	5.43	2.25	2.73	2.07
6	2.61	2.40	3.13	3.09	2.58	2.69	3.20	2.31	2.88	2.71	3.86	2.63	2.55	2.37
7	3.73	3.72	3.73	3.36	3.65	3.72	3.60	3.62	3.85	3.43	4.00	3.88	3.57	4.00
8	3.38	3.19	3.97	3.36	3.19	3.72	3.40	3.17	3.82	3.57	4.43	3.50	3.27	3.22
9	2.82	2.58	2.60	2.91	2.29	2.86	2.60	3.07	2.18	2.14	2.86	2.88	2.61	3.33
10	3.20	3.35	3.60	3.55	3.55	3.31	3.50	3.31	3.56	2.71	5.00	3.75	3.29	2.56
11	3.44	3.47	4.03	3.36	3.74	3.76	3.30	3.86	3.68	2.57	5.00	4.50	3.53	2.78
12	3.73	3.70	3.83	3.09	3.84	3.93	2.70	3.97	3.88	3.57	5.14	3.50	3.63	3.67
13	3.03	3.05	3.30	2.91	3.06	3.38	3.00	2.97	3.35	2.71	4.43	3.75	2.96	2.67
14	3.57	3.33	4.00	4.00	3.68	3.45	4.00	3.62	3.47	2.86	3.71	4.25	3.63	3.41
15	2.71	2.72	2.80	2.18	2.74	3.00	2.10	2.79	2.91	2.71	3.14	3.25	2.63	2.59
16	3.06	3.02	3.10	3.45	2.71	3.38	3.50	3.00	2.97	3.29	3.29	3.00	3.06	2.96
\bar{x}	3.16	3.09	3.45	3.20	3.13	3.40	3.16	3.18	3.33	3.16	3.95	3.44	3.11	2.90

* – 1. EDs may exhibit addictive effects, – 2. EDs can make me feel stronger, – 3. EDs can improve the mood / general feeling, – 4. EDs can improve the condition of the body, – 5. I am eager to try an ED, even if its effects are unknown to me, – 6. The use of EDs is totally safe, – 7. I doubt that the declared effects of EDs are based on reliable research, – 8. Information concerning the negative effects of EDs are presented in an exaggerated light, – 9. One cannot promote health by the consumption of EDs, – 10. It is good that the modern technology supports the development of the ED market, – 11. EDs are absolutely unnecessary and superfluous, – 12. People with low physical activity levels should not consume EDs, – 13. The increase in the number and the extension of the range of EDs are a worrying tendency for the future, – 14. EDs can eliminate the negative effects of physical strain, – 15. Properties of EDs lead to unpredictable hazards, and may be harmful to health, – 16. In my opinion, EDs are most often used by people who do not need them.

** – W – Woman, M – Man

Attitudes: – negative – neutral – positive

Source: like in Table 1.

Factors determining the choice of an ED

The study also analysed the importance of the selected factors which determined, to the greatest extent, the choices of consumers of this group of products. No significant impact of gender on the hierarchy of factors determining the purchase of EDs was demonstrated. This indicates the homogeneity of both the women's and men's convictions about the significance of the expected characteristics of a product. Statistically significant differences ($p < 0.01$) were demonstrated with the following criteria adopted for the division of the study population: the age, educational level, and the frequency of ED consumption. Based on the calculated coefficients of significance of factors determining the choice of an ED, three groups were distinguished, which differed in the importance to the consumer, namely: (a) great, (b) moderate, and (c) minor importance. The first group (a) included: the previously discussed taste and smell qualities ($\bar{x} = 3.39$), source of readily available energy substrates ($\bar{x} = 3.14$), confidence in the manufacturer ($\bar{x} = 3.06$), brand loyalty ($\bar{x} = 2.98$), the price and functional characteristics (equally $\bar{x} = 2.89$). In a similar study carried out on a group of middle school students, the key determinants of the choice of an ED were as follows: taste qualities, habit, popularity and price (Kozirok 2016b).

As regards the taste qualities, the subjectivity of an assessment, which is dependent on the individual sensory sensitivity of a consumer, needs to be assumed. Therefore, the significance of this factor should be considered as a very personal, and not always objective feeling. In addition to biologically active substances exhibiting effects stimulating many physiological systems, EDs contain large amounts of simple sugars with high energy potential. The considerable significance of confidence in the manufacturer and in the brand may indicate loyalty to a product and thus the lack of interest in new products in the category of such beverages. In addition, the brand plays an important role in creating the image of a product, and consequently contributes to the customer's contentment and satisfaction. Functional beverages, to which EDs *inter alia* belong, are products whose composition has been specifically selected in order to influence, to the greatest extent, various physiological functions of the body. Therefore, since the essence of EDs is their specific functionality, their high position in the hierarchy of choice determinants appears to be understandable. The importance of the price as a factor with a significant effect on purchasing decisions and the choice of a specific product has already been described. It is a common opinion that the price reflects the quality; therefore, a customer, while deciding to purchase a selected product from the range of EDs, agrees to pay a higher price for it. This may explain the great popularity of the product Red Bull among the study participants. The economic aspect of the choices being made was indicated by many authors. In some cases, the price actually appears as one of the key factors determining the purchase of an ED (Błaszczuk et al. 2013; Garus-Pakowska 2015; Godala et al. 2013; Semeniuk 2011). The second group (b) included: being accustomed to a product ($\bar{x} = 2.86$), availability ($\bar{x} = 2.85$), attractiveness and functionality of the packaging ($\bar{x} = 2.65$), fashion and prevailing trends ($\bar{x} = 2.60$). More than 72% of the respondents declared that the availability of EDs to consumers is high or very high. Only 3.3% of the respondents described it as low. At the same time, 61.9% of the respondents

expressed their belief that such a high availability of the product directly translates into the popularity and common consumption thereof, while 5.7% did not notice this relationship. Other respondents had no opinion on this matter. The group of factors of minor importance (c) included: curiosity about a product ($\bar{x} = 2.56$), the composition of a product ($\bar{x} = 2.44$), qualitative and quantitative contents of biologically active substances ($\bar{x} = 2.39$), opinions of acquaintances and friends ($\bar{x} = 2.27$) and the significance of advertising messages ($\bar{x} = 1.99$). In the context of the obtained data, it is worth considering the effectiveness of the marketing impact and focusing on an analysis of individualised fluctuations within the catalogue of consumer expectations.

Conclusions

An analysis of the collected data enabled the determination of the attitude of the consumers involved in the study towards EDs and the formulation of the following final statements: The study participants demonstrated a significant diversity in the frequency of ED consumption. Most of them consumed EDs occasionally (45.7%) or did not use them at all (18.5%), with a relatively large percentage of respondents consuming them several times a week (21.4%). The reasons for consuming these beverages varied. The consumption of EDs resulted largely from the desire to stimulate the body and to combat fatigue and sleepiness, and a desire to quench thirst. A factor of great importance, particularly in the group of younger consumers, were the taste qualities. The consumers most often incorporating EDs in their diet were persons of school age. One may venture the statement that the consumption of EDs has been increasingly becoming an element of the behaviour style of a contemporary young person. Most consumers declared that they consumed EDs of the following brands in the following order: Tiger, Red Bull, Be Power, Rock Star i Monster. An analysis of the significance of factors determining the choice of an ED distinguished three groups of factors differing in the level of importance to the consumer. The choice of an ED was most strongly determined by the evaluation of taste and aroma qualities. Other important distinguishing features included: the source of readily available energy substrates; confidence in the manufacturer; brand loyalty; the price; and functional properties. Most respondents had a neutral attitude towards EDs, with a tendency towards a negative attitude, which could have translated to the frequency and quantities of the consumed beverages.

The diversity in ED consumer behaviours indicates the need to take these differences into account in the product offering. It is also worth considering activities aimed at increasing consumer confidence in the product offering for these functional beverages. The article is a research paper.

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Postawy i zachowania konsumentów wobec napojów energetyzujących

Streszczenie

Celem opracowania jest identyfikacja wybranych zachowań konsumenckich oraz postaw konsumentów wobec napojów energetyzujących (NE). W artykule przedstawiono wyniki badań dotyczących diagnozy postaw i zachowań konsumenckich na rynku NE oraz ich uwarunkowania. W badaniu zastosowano metodę ankietową. Dobór populacji badanej był przypadkowy i obejmował grupę 507 osób o zróżnicowanym wieku, płci i wykształceniu. W obszarze zachowań oceniono poddano między innymi częstotliwość i rodzaj nabywanych NE oraz preferencje i czynniki decydujące o ich zakupie i konsumpcji. Uczestnicy badania wykazywali duże zróżnicowanie w zakresie częstotliwości spożycia, a rozkład uzyskanych danych sugerował okazjonalne wykorzystywanie tej grupy napojów. Ponad 18% badanych zadeklarowało, że nie spożywa NE w ogóle. Przesłanki spożycia tych napojów były zróżnicowane i zależne od wieku. Młodsza część badanych częściej wskazywała na względy smakowe i chęć ugaszenia pragnienia, osoby starsze wskazywały na potrzebę pobudzenia i walki ze zmęczeniem. Najpopularniejszymi markami były kolejno: Tiger, Red Bull, Be Power, Black, Rock Star, Monster. Do głównych determinant wyboru NE należały kolejno: walory smakowe, źródło potencjału energetycznego, zaufanie do marki i do producenta, cena i właściwości funkcjonalne. Postawy badanych wobec NE były obojętne, z tendencją do negatywnych i korespondowały z częstotliwością i wielkością spożycia. Zróżnicowanie zachowań konsumentów NE wskazuje na konieczność uwzględniania tych różnic w ofercie produktowej. Ponadto warto rozważyć takie działania, które będą zmierzały do zwiększenia zaufania konsumentów do takiej oferty produktowej. Artykuł ma charakter badawczy.

Słowa kluczowe: postawy i zachowania konsumentów, napoje energetyzujące, determinanty wyboru.

Kody JEL: D01, I12

Поведение и отношение потребителей к энергетическим напиткам

Резюме

Цель разработки – выявить избранные виды поведения и отношения потребителей к энергетическим напиткам (ЭН). В статье представили результаты исследований по диагнозу отношения и поведения потребителей на рынке ЭН и их обусловленностей. В исследовании применили анкетный метод. Подборка обследуемой популяции была случайной и она охватывала группу

507 лиц, дифференцированных по возрасту, полу и образованию. В сфере поведения оценивали, в частности, частотность и вид приобретаемых ЭН, а также предпочтения и факторы, решающие их покупку и потребление. Участники опроса демонстрировали большую дифференциацию в отношении частотности потребления, а распределение полученных данных подсказывало нерегулярное употребление этой группы напитков. Свыше 18% опрошенных заявили, что они вообще не потребляют ЭН. Предпосылки потребления этих напитков были разны и зависели от возраста. Более молодая часть опрошенных указывала вкусовые предпосылки и охоту утолить жажду, тогда как лица постарше указывали потребность стимулирования и преодоления утомления. Самыми популярными марками были поочередно: Tiger, Red Bull, Be Power, Black, Rock Star, Monster. К числу основных детерминантов выбора ЭН относились поочередно: вкусовые ценности, источник энергетического потенциала, доверие к марке и производителю, цена и функциональные свойства. Отношение опрошенных к ЭН было нейтральным, с тенденцией к отрицательному и оно соответствовало частотности и объему потребления. Дифференциация поведения потребителей ЭН указывает на необходимость учета этих отличий в предложении продуктов. Кроме того, стоит подумать о таких действиях, которые будут направлены на повышение доверия потребителей к такому предложению продуктов. Статья имеет исследовательский характер.

Ключевые слова: отношение и поведение потребителей, энергетические напитки, детерминанты выбора.

Коды JEL: D01, I12

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