

Consumers' behaviour and motives for selection of dairy beverages in Kvarner region: a pilot study

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Summary

Since food choice is always a unique and personal experience, consumer behaviour is important for food manufacturers and marketers in term of product success. Due to the beneficial health-protective effects of dairy beverages, this market segment is very innovative and fast-growing. The aim of this pilot-study was to examine the consumption patterns, purchasing behaviour and motives for selection of dairy beverages. The sample of this study included 114 participants (44 males and 70 females) which were interviewed face-to-face at the entrance of 5 shopping centres. The survey instrument consisted of closed questions regarding habits of consumption, purchasing habits and motives for selection of dairy beverages. Gender specific differences were tested. The results obtained have shown that females consumed more milk and milk drinks ($p < 0.001$) and fermented milk drinks ($p = 0.002$) than males. The consumption of whey-based beverages was sporadic in both genders. Females in higher percentage purchase low-fat dairy beverages ($p = 0.043$), while males exhibited a higher level of loyalty to a certain product ($p = 0.034$). Sensory appeals were the most important motivational factor for both genders. Brand was ranked second for males ($p < 0.001$) and health aspect for females. The products' origin was ranked third, while price was ranked fifth for both genders. The results obtained could be useful to researchers and dairy market sector in developing and promoting a group of dairy beverage products based on innovations and health.

Key words: consumer, dairy beverage, food choice

Introduction

The primary aim of food producers is to manufacture products that consumers will buy. For achieving this goal and for surviving the intense competition from the other manufacturers, products must meet the desires and needs of consumers. Since, for this reason, consumers guarantee the development and growth of companies, competition for consumers among companies on the market is growing merciless. The dairy industry in Croatia plays an important role in the agricultural sector and, given its contribution to total revenue, it represents the largest sub-sector. According to the latest available data, Croatian dairy production (without ice cream pro-

duction) was 605197 t/year, with the usage of 60% of industrial production capacities (Croatian Bureau of Statistics, 2008a). Among various dairy products, milk and fermented milk products accounted for 75% of total production. The dairy beverages market (with an annual production of 78917 t) is a very innovative and fast growing segment of dairy production. These products have gained in popularity in recent years and, thanks to their advertised health-protective effects, they are becoming appealing and attractive to consumers. Dairy beverages exhibit beneficial health effects due to the presence of bio-active components (vitamins, specific proteins, bio-active peptides, oligosaccharides, organic (including fatty) acids). This group of nutrient-dense food can

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decrease the absorption of cholesterol and affect the body fat and body mass as summarized by Ebringer and co-workers (2008).

Today, consumers are more informed and more demanding so consequently the food producers who want to survive on the market should take special care about the consumption and purchasing behaviour of their consumers and their motives in food selection.

Food selection is a complex phenomenon, depending on a lot of factors, which affect human behaviour in different ways, resulting in the selection of some, and rejection of other products (Wadolowska et al., 2008). Factors that affect food choices may be divided into three main groups: i) product-related factors, which rely on chemical and physical properties, sensory attributes (taste, aroma, texture, visual appearance), functional factors (packaging, accessibility, convenience), nutrient content etc.; ii) consumer-related factors, including personality (age, gender, education level), psychological factors (personality, experience, mood), physiological effects (satiety, hunger, appetite etc.); iii) environmental-related, which include economic (price, incomes), cultural (beliefs), and social factors (fashion, society etc.) (Shepard, 1989). Underlying food choice is important not just for the improvement and re-designing of food products that actually exist on the market but it is also valuable in the process of new product development (Furst et al., 1996).

Modern studies which examine consumer behaviour often measure the range of food selection motives using a food choice questionnaire (Prescott et al., 2002; Sun, 2008; Sandell and Pohjanheimo, 2009). In this multidimensional scale constructed by Steptoe and co-workers (1995), nine factors were identified which potentially influenced food choice. These were: health, mood (positive or negative emotions), convenience (easiness to prepare or availability), sensory appeal (appearance, taste and smell), natural content (no additives), price, weight control (low in calorie and fat), familiarity and ethical concern (politically approved country of origin, environmentally friendly packaging).

The importance of market research and the role of the consumers in strategic planning within the dairy market sector are well recognized world-

wide. Trends in this sector suggest shifting the focus of interest from consumer requirements (i.e. supermarket) toward consumer preferences and motives for selection (Fearne and Bates, 2003; Kapsdorferova and Nagyova, 2005). However, according to the best of our knowledge, the behaviour of dairy beverages consumers has not been the focus of scientific research in Croatia so far.

In view of the above, the aim of this pilot-study is twofold. First, we wanted to describe the consumers of dairy beverages and to get insight into their consumption and purchasing behaviours (which product they usually consume, when they consume it, why they usually purchase it, and what motivates them to choose this group of products). Second, since this study is a part of a project aimed to design new whey-based drinks, the questions about consumer knowledge and attitudes towards whey-based beverages are briefly discussed with the aim to emphasise the role of consumers in the early stage of the process of creating a new product. The information obtained in this study could provide helpful input for future research, which intend to include national representative sample and whose results could be very useful not only for new product development, but also for consumer segmentation and advertising in the dairy beverages market segment.

Subjects and methods

This study included 114 participants of both genders (44 males and 70 females) who were interviewed face-to-face in cities Rijeka and Opatija (Kvarner region of Croatia). The 10-minute interviews were conducted by trained interviewers at the entrances of five shopping centres. In an attempt to ensure random sampling, one in ten shoppers was approached and the purposes of study were explained. The recruitment procedure produced a gender imbalance across the sample. However, given that females tend to carry out the household shopping this was not seen problematic (Starrels, 1994). The characteristics of the study sample are summarized in Table 1.

The survey instrument, which had only closed questions, consisted of four parts, and was designed to gather information about following consumer characteristics: i) demographic (age, gender, education level), ii) consumption and purchasing behav-

Table 1. Distribution of consumers (n=114) by gender, age and education
 Tablica 1. Zastupljenost potrošača (n=114) obzirom na spol, dob i stupanj obrazovanja

Characteristic/Značajka	Total (n)/Ukupno (n)	%
Gender/Spol		
Male/Muškarci	44	38.6
Female/Žene	70	61.4
Age (y)/Dob (godine)		
18-29	29	25.4
30-44	61	53.5
>45	24	21.1
Education/Obrazovanje		
Primary school/Osnovna škola	18	15.8
Secondary school/Srednja škola	60	52.6
University degree/Fakultet	36	31.6

our regarding dairy beverages, iii) knowledge about and preferences towards whey-based beverages, and iv) motives for choosing dairy beverages. The theoretical backgrounds for developing this questionnaire were various researches about consumer behaviours (Prescott et al., 2002; Sun, 2008; Pieniak et al., 2009; Cerjak et al., 2007; Jones et al., 2008).

Consumption of dairy beverages was evaluated with consumption frequency (0-7 times per week), and by daily consumed amounts. The usual sizes of consumed portions were defined face-to-face during interviews using a model of usual packaging of dairy beverages on the Croatian market. Participants were also asked in which occasion they usually consume dairy beverages, how often they purchase low-fat products from this group and how persistently they look after wanted products. Consumers knowledge and preferences toward whey-based beverages were tested by asking them to answer knowledge questions (regarding health aspects, content of protein and content of fat), while preferences were tested with opportunity to choose tastes attributed to whey-based drinks. Dairy beverages choice motives were measured by the application of the previously cited Food choice questionnaire (Steptoe et al., 1995). The questionnaire was modified in the sense that certain motivational factors (namely: convenience, mood and ethical reasons) were omitted from the original questionnaire. Instead of these, the importance of the country of origin as a motivation factor was added. The participants were asked to score every food choice factor (along with its verbal description) using 5-point scale from „not important”

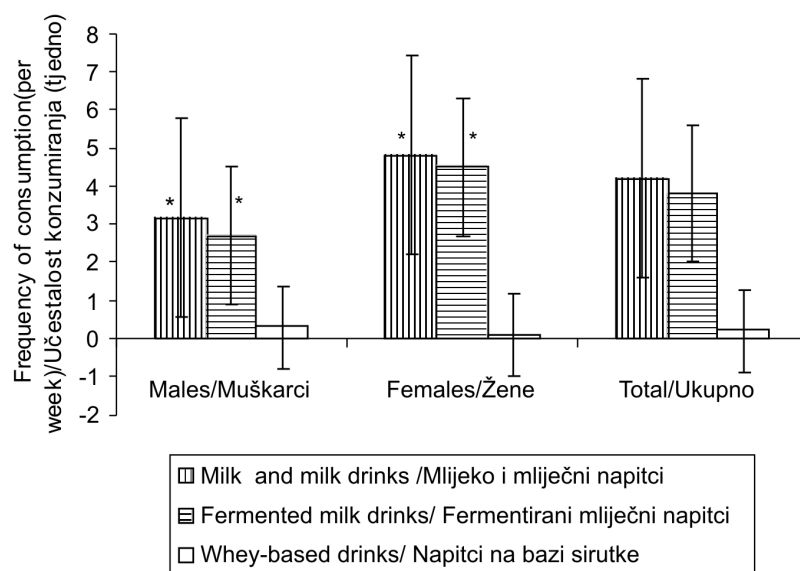
to „very important”. The original four-point rating scale was substituted by a five point scale, to allow for finer discriminations between food choice motives.

Descriptive statistics are presented as means \pm standard deviations. To test the association between categorical variables, chi-square test was used. Student's t-test was used to compare the differences in means across continuous variables according to differences in gender responses. All statistic methods were performed using STATISTICA, version 7.1. Results were considered statistically significant at $p < 0.05$.

Results and discussion

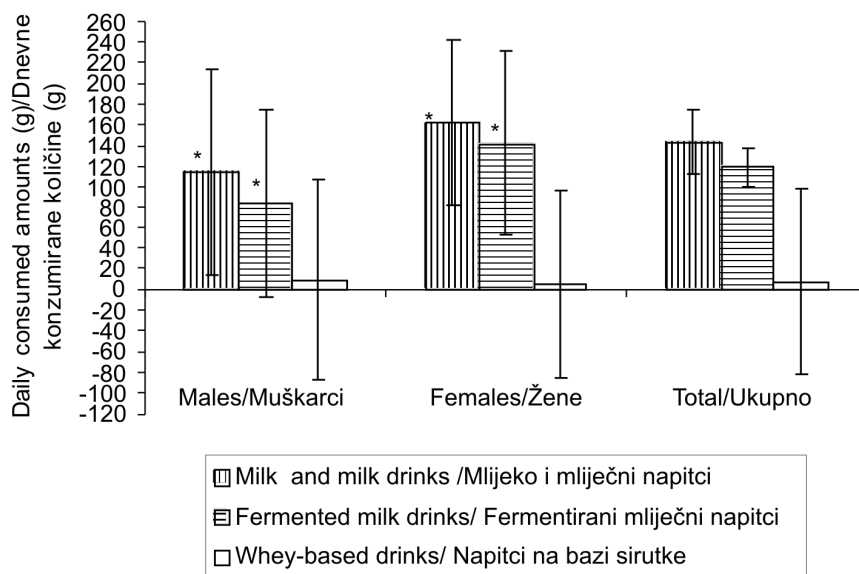
More females (61.4%) were included in the study since the primary food shoppers are usually women. About half of the study participants were in an age range of 30 to 44 years. Regarding education level, about one half of the respondents had secondary school degrees, and the sample was biased towards university degree participants compared to Croatian Census (Croatian Bureau of Statistics, 2008b) (Table 1).

The first part of the questionnaire was designed with the aim to provide a rough estimate of dairy beverages intake. Since the purpose was not to assess the exact nutritional value of the respondents' diets, the methodology used can be acceptable as an indicator of consumption frequencies and consumption amounts. The obtained results are presented in Figure 1 and Figure 2.



*Significant difference according to gender assessed with t-test ($p < 0.05$)/Statistička značajnost obzirom na spol ustanovljena t-testom ($p < 0,05$)

Fig. 1. Frequency (n per week) of dairy beverages consumption according to gender
Slika 1. Učestalost (n puta tjedno) konzumiranja mliječnih napitaka obzirom na spol



*Significant difference according to gender assessed with t-test ($p < 0.05$)/Statistička značajnost obzirom na spol ustanovljena t-testom ($p < 0,05$)

Fig. 2. Amounts of daily consumed dairy beverages, according to gender
Slika 2. Dnevno konzumirane količine mliječnih napitaka obzirom na spol

Females compared to males, consumed more milk and milk drinks ($p < 0.001$), while males in higher percentage consumed whey-based beverages (Figure 1). Milk and milk drinks were more frequently avoided by males (27% of males and 14% of females never consume this food). Twenty-five percent of males and even 48% of females consumed milk and milk drinks on a daily basis. In addition to the mentioned frequency of consumption, the total daily amount of consumed milk and milk drinks was also significantly higher in females ($p = 0.004$) (Figure 2). The average consumers of milk and milk drinks are women aged 30-44 with secondary school degrees. The group of fermented milk drinks is consumed by women of the same middle-age consumer group but holding higher education degrees. Females consume this group of products more frequently ($p = 0.002$) and in almost double amounts ($p < 0.001$) compared to males (Figure 1 and 2). About 17% of females and 7% of males regularly consume fermented milk drinks. The consumption of whey-based drinks is sporadic with no significant difference according to gender. About 90.1% of males and even 93% of females never purchase whey-based beverages. The consumption frequency of milk and fermented milk beverages is similar to the previous Croatian results obtained among young women, although the daily consumed amounts were higher in our study (Šatalić et al., 2008). However, our findings do not support the assertion that males typically consume more dairy products than females (Klesges et al., 1999; Liebman et al., 2003).

The following part of the questionnaire was concerned with consumption and purchasing behaviour regarding dairy beverages, and the results obtained are presented in Table 2.

Dairy beverages are often consumed as a part of breakfast, while males, in a higher percentage, prefer it as a snack ($p = 0.021$). Females more frequently choose low-fat dairy beverages, with about 67% of females regularly using light products compared to 30% of males ($p = 0.043$). This is in accordance with the fact that females, due to a greater concern about health, body weight and energy intake, consume light products in a higher percentage (O'Brien Nabors, 1997). High preferences of females for low-fat dairy beverages could be explained with the fact that the majority of dairy beverages on the Croatian market are actually made from skim milk, and women are

more aware of this fact than males. In our study, the frequency of consumption of low-fat dairy beverages is higher compared to previous research among young Croatian women (Šatalić et al., 2008), probably because our study group consisted of older consumers who are more concerned about health and have positive attitudes toward low-fat dairy beverages. Additionally, our study sample was based towards university-educated consumers. This can also contribute to the observed behaviour regarding low-fat products, since it was shown among US consumers that the consumption of low-fat milk and dairy products is positively related to age, education level and income level (Robb et al., 2007). In our study, the typical consumer of light dairy-beverage products belongs to the over-45 age group and holds a university degree. Further expansion of the market of low-fat dairy beverages could be expected in Croatia, given the global trend in dairy consumption, which is increasingly focusing on products with reduced fat content (Frandsen et al., 2007).

Male participants exhibited a higher level of loyalty to certain products since 50% of them would desist from purchasing if they could not find the product they wanted ($p = 0.034$), while 45.7% of women in the same situation would decide to buy a similar product from another manufacturer. The evident consumer loyalty is important, as it increases the probability that certain products will be bought, thus defending the product from the threat of the competition (Vranešević and Stančec, 2003).

As mentioned in the introductory section, through this survey some information about consumer knowledge and attitudes towards whey-based beverages were investigated. These results will be used in the process of creating new products, since it was shown by Dahan and Hauser (2001) that this kind of individual interviews during the phase of searching for ideas for a new product could be very useful in later product development. Whey beverages include a wide range of products obtained by mixing native sweet, diluted or acid whey with different additives like fruits, crops, isolates of vegetable proteins, chocolate, cocoa, and other aromatizing agents. Nowadays as a part of a functional food trend, a new generation of fermented whey beverages has emerged on the market (Jeličić et al., 2008). Unfortunately, the share of whey-based beverages on the Croatian market is very limited.

Table 2. Consumer behaviours regarding dairy beverages according to gender

Tablica 2. Ponašanje potrošača vezano uz mliječne napitke u ovisnosti o spolu

	Number and percentage of participants n (%)			p*
	Broj i udio ispitanika n(%)			
	Males/Muškarci (n=44)	Females/Žene (n=70)	Total/Ukupno (n=114)	
In which occasion do you usually consume dairy beverages?				
U kojoj prilici obično konzumirate mliječne napitke?				
- as a part of breakfast/u okviru doručka	20 (45.4)	36 (51.4)	56 (49.2)	0.751
- as a part of lunch/u okviru ručka	0 (0)	2 (2.9)	2 (1.7)	0.267
- as a part of dinner/u okviru večere	12 (27.3)	27 (38.6)	39 (34.2)	0.431
- as a snack/kao međuobrok	12 (27.3)	5 (7.1)	17 (14.9)	0.021*
How often do you purchase low-fat dairy beverages?				
Koliko često kupujete mliječne napitke sa smanjenim udjelom masti?				
- every day/svakodnevno	8 (18.2)	33 (47.2)	41 (36.0)	0.043*
- several times per week/nekoliko puta tjedno	19 (43.2)	12 (17.1)	31 (27.2)	0.041*
- several times per month/nekoliko puta mjesečno	8 (18.2)	13 (18.6)	21 (18.4)	0.968
- never/nikada	9 (20.4)	12 (17.1)	21 (18.4)	0.733
What do you do if you don't find the dairy beverage you want?				
Što činite kada ne nađete traženi mliječni napitak?				
- give up purchasing/odustajem od kupovine	22 (50.0)	14 (20)	36 (31.6)	0.034*
- go to another store/odlazim u drugu prodavaonicu	9 (20.4)	24 (34.3)	33 (28.9)	0.276
- buy similar product from other manufacturer/kupujem sličan proizvod od drugog proizvođača	13 (29.6)	32 (45.7)	45 (39.5)	0.305

*Significant difference according to gender assessed with chi-square test ($p < 0.05$)/Statistička značajnost obzirom na spol ustanovljena hi-kvadrat testom ($p < 0,05$)

However, the fact that these products are poorly present on the Croatian market was an incentive for us to try to develop a new product and, prior to that, to assess consumers' knowledge and attitudes about whey. Since this was not the primary aim of the study, only a few results will be briefly discussed in this paper. Generally, our study sample did not possess adequate knowledge about the health benefits of whey (only 24% were aware of such benefits). Additionally, only 30% recognized whey as a low-fat food and 15% knew that it represents a good source of proteins. However, 63% of study participants stated that they would buy a whey-based beverage if they were aware of its health benefits. There were no gender specific differences in knowledge questions, but, as we expected, there were differences in taste preferences. The majority of females (64.3%)

prefer a sweet fruity taste, while a higher percentage of males (68.2%) prefer a neutral taste. In this section, it was also confirmed that education level has an impact on consumer behaviour patterns related to whey-based beverages. About seventy percent of those who stated that they are willing to try a new product belonged to the university degree group. Kowalczyk (2008) also confirmed that persons with higher education approve of new products to a greater extent and have a greater disposition to buy them.

The results from Table 3 clearly indicate sensory appeal as being the most important motivational factor for both genders. For males, brand was ranked second (even 20% of males rated this motive as being very important), and health aspects, for females. These results are consistent with the data ob-

Table 3. Mean values for the dairy beverage choice motives according to gender
 Tablica 3. Srednje vrijednosti motiva koji utječu na odabir mliječnih napitaka ovisno o spolu

	Males/Muškarci (n=44)	Females/Žene (n=70)	Total/Ukupno (n=114)	p*
Sensory appeal/Organoleptičke značajke	4.3±0.3	4.2±0.4	4.3±0.3	0.027*
Brand/Brend	4.1±0.5	3.5±0.3	3.8±0.4	<0.001*
Price/Cijena	3.5±0.7	3.4±0.4	3.5±0.5	0.402
Origin/Podrijetlo	3.9±0.8	3.6±0.7	3.7±0.1	0.038*
Packaging/Ambalaža	3.0±1.0	2.8±1.1	2.9±0.4	0.201
Health aspects/Učinci na zdravlje	3.9±1.1	4.2±0.7	4.1±0.9	0.048*
Natural content/Prirodnost	2.2±0.6	2.6±0.5	2.5±0.4	<0.001
Weight control/Utjecaj na tjelesnu masu	3.2±1.8	4.1±1.6	3.7±1.7	0.006*

Scale from 1 = not at all important to 5 = very important/Raspon od 1 = potpuno nevažno do 5 = izrazito važno

*Significant difference according to gender assessed with t-test ($p < 0.05$)/Statistički značajna razlika ustanovljena t-testom ($p < 0,05$)

tained among British consumers, where health was ranked second, preceded by sensory appeal (Step-toe et al., 1995). About forty percent of those who rated the important health aspects of dairy beverages consumption were more than 45 years of age, a fact that supports the observation that consumers' health concerns increase with increasing age (Bech-Larsen and Scholderer, 2007). The influence of health aspects on purchase behaviour was also evident among Japanese consumers, as those consumers with stronger health concerns consumed more milk products (Watanabe et al., 1997). Product origin was ranked in third place for both genders. Among this study sample (particularly males), enthusiasm for supporting Croatian products was evident, and this is consistent with a recently conducted survey among British consumers who were highly motivated for purchasing national products (Chambers et al., 2007). Females were more concerned about weight control (for 23% of them, this was very important). Of the females who rated this motivation factor with a score of 4 or 5, up to 54% consume light dairy products on a regular basis (Table 2). Consumers were not concerned about the naturalness of dairy beverages, since these products are often perceived as "healthy (natural) food", and consumers do not feel the risk or the scepticism associated with this type of products. Consequently, this factor holds the last place in the ranking. Relating to branding, a very curious fact is that the consumers highly value the brand of dairy drinks, notably, males in a higher percentage than females ($p < 0.001$). Actually, as discussed in Table 2, the ma-

ajority of males find the brand so important that they refuse to buy a product from another manufacturer. Food is rarely eaten without any information, and the evidence from the marketing field revealed that the brand influences consumer behaviour (Pitta and Franzak, 2008). The product brand creates an image of the product in the consumer's mind which is often associated with quality, and so becomes the basic motive for the consumers' choice of a particular product (Vranešević and Stančec, 2003).

Conclusion

The insights gained in this pilot-study give researchers and dairy marketers useful information about consumers' behaviour and provide guidance for developing and promoting a group of dairy beverage products. To better understand consumers' behaviour in this market segment validation studies with larger, national representative sample are needed. Despite the small sample size that limits this study, the obtained results show that women consume more dairy beverages than men, and that they also choose low-fat dairy beverages in greater numbers. Consumers have positive attitudes toward whey-based beverages and they are willing to try them, especially educated group of consumers. A new whey-based beverage should be promoted by focusing on its health aspects. It was found that taste is the most important choice motive, followed by health aspects, so marketers should pay strong attention to this fact in designing their marketing channels. An important motive for selection of this group

of products is brand, particularly among male consumers. Price was ranked fifth, preceded by health aspects, origin, brand and sensory appeal.

*Ponašanje potrošača i motivi odabira
mliječnih napitaka na području Kvarnera:
pilot-studija*

Sažetak

S obzirom da je odabir hrane individualna značajka pojedinca, za uspjeh proizvoda na tržištu nužno je da i proizvođači i prodavači poznaju ponašanja potrošača. Zahvaljujući pozitivnim učincima na zdravlje, mliječni napici predstavljaju inovativni i brzorastući tržišni segment. Cilj ove pilot-studije bio je ispitati navike konzumacije, ponašanje pri kupovini i motive odabira među potrošačima mliječnih napitaka. Promatrana skupina uključivala je 114 ispitanika (44 muškarca i 70 žena) koji su usmeno intervjuirani na ulazu pet trgovačkih centara. Korišteni upitnik sastojao se od zatvorenih pitanja koja su uključivala navike konzumacije, ponašanje pri kupovini i motive odabira mliječnih napitaka. Ispitivane su također razlike obzorom na spol. Dobiveni rezultati pokazali su da žene više konzumiraju mlijeko i mliječne napitke ($p < 0,001$) te fermentirane mliječne napitke ($p = 0,002$). Konzumacija napitaka na bazi sirutke bila je sporadična kod oba spola. Žene u većem broju konzumiraju mliječne napitke sa smanjenim sadržajem masti ($p = 0,043$), dok muškarci pokazuju veću lojalnost pojedinom tipu proizvoda ($p = 0,034$). Organoleptičke značajke predstavljaju za oba spola najvažniji motiv odabira. Na drugom mjestu je za muškarce brend ($p < 0,001$) a za žene učinci na zdravlje. Podrijetlo proizvoda je na trećem mjestu, dok je cijena na petom mjestu. Dobiveni rezultati mogu biti korisni za istraživače, ali i za sektor mliječne industrije kako u promociji postojećih tako i u razvoju novih mliječnih napitaka baziranih na inovativnosti i učincima na zdravlje.

Ključne riječi: potrošač, mliječni napici, odabir hrane

References

1. Bech-Larsen, T, Scholderer, J. (2007): Functional foods in Europe: consumer research, market experiences and regulatory aspects. *Trends in Food Science and Technology* 18, 231-234.
2. Cerjak, M., Rupčić, I., Tomić, M., Zrakić, M. (2007): Consumer behaviour regarding "light" food products on the Zagreb market. *Journal of Central European Agriculture* 8 (2), 257-267.
3. Chambers, S., Lobb, A., Butler, L., Harvey, K., Traill, B. (2007): Local, national and imported foods: a qualitative study. *Appetite* 49, 208-213.
4. Croatian Bureau of Statistics (2008a): Statistical report No. 1347, Central Bureau of Statistics, Zagreb, Croatia.
5. Croatian Bureau of Statistics (2008b): Statistical Yearbook of the Republic of Croatia, Central Bureau of Statistics, Zagreb, Croatia.
6. Dahan, E., Hauser, J.R. (2001): Product Development- Managing a Dispersed Process. In: B.Weitz, R. Wensley (Eds): *Handbook of Marketing*. Sage Publications, New York.
7. Ebringer, L., Ferenčik, M., Krajčović, J. (2008): Beneficial health effects of milk and fermented dairy products. *Folia Microbiologica* 53, 378-394.
8. Fearne, A., Bates, S. (2003): What price a "pinta"? Differentiating the market for liquid milk, Results of consumer research in the UK dairy sector. *British Food Journal* 105, 756-770.
9. Frandsen, L.W., Dijksterhuis, G.B., Martens, H., Martens, M. (2007): Consumer evaluation of milk authenticity explained both by consumer background characteristics and by product sensory descriptors. *Journal of Sensory Studies* 22, 623-638.
10. Furst, T., Connors, M., Bisogni, C.A., Sobl, J., Falk, L.W. (1996): Food choice: A conceptual model for the process. *Appetite* 26, 247-265.
11. Jeličić, I., Božanić, R., Tratnik, Lj. (2008): Napitci na bazi sirutke - nova generacija mliječnih proizvoda. *Mljekarstvo* 58 (3), 257-274.
12. Jones, V.S., Drake, M.A., Harding, R., Kuhn-Sherlock, B. (2008): Consumer perception of soy and dairy products: A cross-cultural study. *Journal of Sensory Studies* 23, 65-79.
13. Kapsdorferova, Z., Nagyova, L. (2005): Consumer behavior at the Slovak dairy market. *Agricultural Economics* 51 (8), 362-368.
14. Klesges, R.C., Harmon-Clayton, K., Ward, K.D., Kaufman, E.M., Haddock, K., Talcott, W., Lando, H.A. (1999): Predictors of milk consumption in a population of 17-13 year old military personnel. *Journal of American Dietetic Association* 99, 821-826.
15. Kowalczyk, I. (2008): Demographic, social, cultural and economic drivers of changes in demand for foodstuffs. In: *Challenges and Perspectives for the European Food Market*, Warsaw University of Life Science Press, Warsaw, Poland, pp.37-48.
16. Liebman, M., Propst, K., Moore, S.A., Pelican, S., Holmes, B., Wardlaw, M.K., Melcher, L.M., Harker, J.C., Dennee, P.M., Dunnagan, T. (2003): Gender differences in selected dietary intakes and eating behaviours in rural communities in Wyoming, Montana and Idaho. *Nutrition Research* 23, 991-1002.

17. O'Brien Nabors, L. (1997): Consumer attitudes and practices. *Annals of New York Academy of Sciences* 819 (1), 115-120.
18. Pieniak, Z., Verbeke, W., Vanhonacker, F., Guerrero, L., Hersleth, M. (2009): Association between traditional food consumption and motives for food choice in six European countries. *Appetite* 53, 101-108.
19. Pitta, D.A., Franzak, F.J. (2008): Foundations for building share of heart in global brands. *Journal of Product and Brand Management* 17, 64-72.
20. Prescott, J., Young, O., O'Neill, L., Yau, N.J.N., Stevens, R. (2002): Motives for food choice: a comparison of consumers from Japan, Taiwan, Malaysia and New Zealand. *Food Quality and Preferences* 13, 489-495.
21. Robb, C.A., Reynolds, L.M., Abdel-Ghany, M. (2007): Consumer preference among fluid milks: Low-fat vs. high-fat milk consumption in the United States. *International Journal of Consumer Studies* 31, 90-94.
22. Sandell, M., Pohjanheimo, T. (2009): Explaining the liking for drinking yoghurt: The role of sensory quality, food choice motives, health concern and product information. *International Dairy Journal* 19, 459-466.
23. Shepherd, R. (1989): Factors influencing food preferences and choice. In Shepherd, R. (Ed.) *Handbook of the Psychophysiology of Human Eating*, Wiley, Chichester, pp 3-24.
24. Starrels, M.E. (1994) Husbands' involvement in female gender-typed household chores. *Sex Roles* 31, 473-491.
25. Steptoe, A., Pollard, T., Wardle, J. (1995): Development of a measure of the motives underlying the selection of food: the food choice questionnaire. *Appetite* 25, 267-284.
26. Sun, Y.C. (2008): Health concern, food choice motives, and attitudes toward healthy eating: The mediating role of food choice motives. *Appetite* 51, 42-49.
27. Šatalić, Z., Colić Barić, I., Keser, I. (2008): Dairy consumption and other dietary risk factors for osteoporosis in Croatian young women. *Mljekarstvo* 58 (4), 327-339.
28. Vranešević, T., Stančec, R. (2003): The effect of the brand on the perceived quality of food products. *British Food Journal* 105, 805-811.
29. Wadolowska, L., Babicz-Zielinska, E., Czarnocinska, J. (2008): Food choice models and their relation with food preferences and eating frequency in the Polish population: POFPRES study. *Food Policy* 33, 122-134.
30. Watanabe, Y., Suzuki, N., Kaiser, H.M. (1997): Identifying consumer characteristics associated with Japanese preferences toward milk products. *Agribusiness* 13, 357-363.