#### ANNA WIELICKA

# CONSUMPTION'S STRUCTURE AND CONSUMER INSIGHTS FOR DAIRY PRODUCTS – AVOIDANCE, DISTRIBUTION, OWN PRODUCTION AND OCCASIONS FOR CONSUMPTION

From Department of Food Management Economics of The August Cieszkowski Agricultural University of Poznań

ABSTRACT. The paper presents some features of population regarding consumption of dairy products, which is examined in four following areas: avoidance, places of purchase, inclination to undertaking own production, occasions for consumption. The research resulted in following findings. Taste is the most important reason to reject milk products. Consumers buy them mainly in convenience stores. High number of consumers produce milk products. The most frequent occasion for consumption of dairy products is breakfast. Also milk drinks accompany mainly this meal.

Key words: consumer, consumption, dairy products, dairy industry

## Introduction

Dairy products play a very important role in the Polish menu. Nevertheless a Polish consumer is more and more capricious, affected by the availability of food, different feeding fashions, marketing tricks and growing disposable income, what makes him changeable as never before. That is why this variability imposes the important but challenging task on dairy industry because the success on FMCG market depends mainly on accurate determination of consumer behaviour and segments' features (**Sznajder** 1999).

Poland belongs to countries with high production of milk, however the influence of the mentioned above factors has caused significant changes in consumers' profiles recently (**Kowrygo** 2000). The crucial sense of milk and its derivatives consumption was an inspiration for the idea of the presented part of research. The aim of this paper is to describe crucial features of today's consumer. In Poland there is neither periodical nor dedicated observation of Polish consumers, that is why the study object is so interesting and results could be very useful for business practice (**Sznajder** et al. 1998).

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Below there are the results of research concerning general character of food consumption regarding dairy products. Survey was conducted in year 2003. The sample is representative so the outcomes can be generalized on Polish population. Selection of examined units was made on a base of chosen features as age, gender and place of living. In accordance to the described characteristics the quotas were determined.

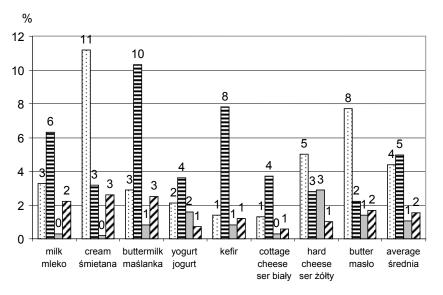
The impact of the study was put on four issues:

- 1) reasons of avoiding dairy products,
- 2) distribution channels for dairy products,
- 3) consumption's occasions for dairy products,
- 4) extend of house processing of dairy products.

## Avoidance of dairy products

Examination of avoidance comprises eight products: milk, cream, buttermilk, yogurt, kefir, cottage cheese, hard cheese and butter. The following properties have been found. The most frequent reason of rejecting the products is their taste. Negative effect on health represents the second important factor. Other reasons and financial expenditures on dairy products play minor role in reluctant attitude towards milk and its derivatives

A detailed study of the answers indicates some below described interdependencies, however in the case of milk, kefir, hard cheese and butter there is no relevant segmentation features and that is why only a general section can be presented (Fig. 1).



□ health – zdrowie ■ taste – smak □ cost – koszt ☑ others – inne

Fig. 1. Reasons of avoidance of milk products in Poland Ryc. 1. Powody unikania produktów mlecznych w Polsce

#### Milk

Milk is usually rejected because of its taste. 6.3% of population gives up milk because of this reason. 3.3% of people maintain, that it has a negative effect on their condition. Other factors are crucial for 2.2%. The cost is a cause to resign for 0.3% of the population.

#### Cream

Cream's avoidance is strongly affected by age (Table 1). The older a consumer is the more he evades consuming this product. In the oldest group 19.3% of persons avoids cream. In inverse direction the consumer behaviour is influenced by taste. Younger consumers are more sensitive to taste. 7.4% of the youngest group point at rejecting the cream for taste reason. The cost plays a marginal role. Generally the avoidance from health reason is the highest in case of the cream and amounts to 11.2% of population. In turn taste is unaccepted by 3.2% of respondents. Consumers are aware of high caloric value of cream, although they usually like the delicate flavour of the product and can allow buying it however, they do evade trying it because of health consequences.

Table 1
Interdependences between avoidance reasons of dairy products and consumer's characteristics
Współzależności między powodami unikania produktów mlecznych a cechami konsumenta

| Product/feature                         |                   | Reasons of a Przyczyny u | voidance (%)<br>inikania (%) | )              |
|---|-------------------|--------------------------|------------------------------|----------------|
| Produkt/cecha                           | health<br>zdrowie | taste<br>smak            | cost<br>koszt                | others<br>inne |
| 1                                       | 2                 | 3                        | 4                            | 5              |
| Cream – Śmietana                        |                   |                          |                              |                |
| 15-19 years – 15-19 lat                 | 5.7               | 7.4                      | 0                            | 3.3            |
| 20-29 years – 20-29 lat                 | 10.3              | 4.6                      | 0                            | 3.7            |
| 30-44 years – 30-44 lat                 | 11.6              | 3.2                      | 0.2                          | 1.9            |
| 45-54 years – 45-54 lat                 | 11.7              | 1.5                      | 0.6                          | 2.5            |
| 55-64 years – 55-64 lat                 | 11.8              | 0.7                      | 0                            | 0.7            |
| More than 64 years – Więcej niż 64 lata | 19.3              | 0                        | 0                            | 3.4            |
| Average – Średnia                       | 11.2              | 3.2                      | 0.2                          | 2.6            |
| Buttermilk – Maślanka                   |                   |                          |                              |                |
| Female – Kobieta                        | 1.7               | 11.1                     | 0.8                          | 2.8            |
| Male – Mężczyzna                        | 4.3               | 9.5                      | 0.8                          | 2.3            |
| Average – Średnia                       | 2.9               | 10.3                     | 0.8                          | 2.5            |

Table 1 – cont.

| 1   | 2   | 3    | 4   | 5   |
|---|-----|------|-----|-----|
| Buttermilk – Maślanka   |     |      |     |     |
| 15-19 years – 15-19 lat   | 3.3 | 14.8 | 0   | 4.1 |
| 20-29 years – 20-29 lat   | 1.8 | 13.4 | 1.3 | 4.4 |
| 30-44 years – 30-44 lat   | 2.6 | 11   | 0.4 | 1.1 |
| 45-54 years – 45-54 lat   | 3.4 | 4.6  | 0.6 | 2.5 |
| 55-64 years – 55-64 lat   | 5.1 | 8.1  | 1.5 | 0.7 |
| More than 64 years – Więcej niż 64 lata                                       | 5.7 | 9.1  | 1.1 | 2.3 |
| Average – Średnia   | 2.9 | 10.3 | 0.8 | 2.5 |
| Buttermilk – Maślanka   |     |      |     |     |
| Single person – Osoba samotna   | 2.1 | 13.5 | 0   | 4.2 |
| Young family without children<br>Młoda rodzina bez dzieci                     | 1.2 | 9.9  | 2.5 | 4.9 |
| Family with children in kindergarten<br>Rodzina z dziećmi w przedszkolu       | 1.4 | 12.8 | 0.7 | 0   |
| Family with children between 6-18 years<br>Rodzina z dziećmi w wieku 6-18 lat | 2.8 | 8.8  | 0.5 | 2.3 |
| Family with grown- up children<br>Rodzina z dorastającymi dziećmi             | 2   | 10.5 | 1.2 | 4.2 |
| Family with independent children<br>Rodzina z usamodzielnionymi dziećmi       | 7.7 | 6.1  | 1   | 1   |
| Family with children in different age<br>Rodzina z dziećmi w różnym wieku     | 3.2 | 11.7 | 0.4 | 2   |
| Not complete family<br>Rodzina z jednym rodzicem                              | 1.3 | 14.5 | 0   | 1.3 |
| Old family without children<br>Starsza rodzina bezdzietna                     | 2.8 | 13.9 | 0   | 0   |
| Average – Średnia   | 2.9 | 10.3 | 0.8 | 2.5 |
| Yogurt – Jogurt   |     |      |     |     |
| Female – Kobieta  | 2.4 | 2.1  | 1.5 | 0.6 |
| Male – Mężczyzna  | 1.8 | 5.3  | 1.6 | 0.9 |
| Average – Średnia   | 2.1 | 3.6  | 1.6 | 0.7 |
| Cottage cheese – Ser bialy  |     |      |     |     |
| Female – Kobieta  | 1.4 | 2    | 0.3 | 0.7 |
| Male – Mężczyzna  | 1.3 | 5.5  | 0.3 | 0.5 |
| Average – Średnia   | 1.3 | 3.7  | 0.3 | 0.6 |

#### **Buttermilk**

Buttermilk shows similar interdependence concerning age. 5.7% of the oldest respondents avoid it because of the health reasons and 14.8% of youngest group deny to drink it because of the taste. The less susceptible for taste is group between 45 and 54 year. When comparing genders, females in 11.1% of cases reject buttermilk because of taste reasons, males adequately less 9.5%. Negative influence on health was often mentioned by males – 4.3% of them pointed at this cause. Females only in 1.7% pointed at the bad impact of buttermilk on physical condition. Cost was equally valued by both genders – 0.8% of each group would decide not to buy it for financial reasons. A family section is also interesting. Here health reasons exert influence upon 7.7% of families with independent children – this is the highest result. Avoidance because of taste is chosen by 14.5% of not full families. Generally in decisions of rejecting the product the leading role plays the taste. One person out of 10 avoids buttermilk because of it. Only 3% of population says that buttermilk can threaten their health.

Consumers refrain from trying this product because they avoid a sour taste of natural buttermilk. Product is said to be safe owing to its low fat profile. In this situation quite rational solution is adding of ingredients that will change the taste and widen the choice offer to consumers.

## Yogurt

Yogurt is the second most accepted product from the examined group. Here the differences arise from the gender. Lack of acceptance of taste is visible in case of 5.3% of men. In contrary only 2.1% of women avoid the product because of this reason. For fear of health's consequences only 1.8% of males avoid yogurt. More careful are females – 2.4% of them deny to eat yogurt because of this.

The role of cost is here pretty important, 1.6% of population rejects buying it for this reason. But still the crucial obstacle to try is its taste, which is not accepted by 3.6% of Poles. Also 2.1% of respondents admit they do not treat yogurt as a healthy meal.

#### Kefir

7.8% of respondents said that it has a strange taste. It was the main reason to reject it. Only 1.4% admitted that they refrain from trying it because of health reasons.

## Cottage cheese

Taste rejection in case of curd cheese occurs with 5.5% of males and 2% of females. 1.3% males and 1.4% of women find relevant negative influence under condition as a reason to avoid it.

Cottage cheese has the highest acceptance among the examined products. Only 1.3% Poles avoid it for health reasons and it is the lowest result in the group. Taste is a problem for 3.7% of the respondents and cost accounts for 0.3% of reluctant attitudes. Curd cheese seems to have the smallest number of opponents and wide acceptance as safe for health and tasty meal.

#### Hard cheese

The most often mentioned reason to avoid this kind of cheese is health consequences. 5% of population is afraid of the health when they consider buying hard cheese. Taste and costs were of similar importance. But the cost's influence in case of hard cheese is the highest in comparison to other products. 3% of the examined persons admit they evade buying it for financial reasons. It could be explained by relatively high prices of ripened cheeses on the polish market.

#### Butter

Taste of butter is the most accepted one from the group. Only 2.2% of examined did not like the taste of butter – it is the lowest result. Price is a serious obstacle to buy for 1.4% of the population. Avoidance because of health indicates relatively high outcome as 7.7% of the surveyed were afraid of health consequences.

## **Distribution channels**

Convenience shops are mainly chosen by customers when they want to buy dairy products. 55.6% of the surveyed persons do usually shopping there. Second best are supermarkets with nearly 18% and discount stores, which are on the third position with 15.5% of frequent customers. Own production and speciality stores have about 7% each. Buying dairy products from their producer is often practiced by 6% of the respondents. Local markets and wholesale outlets play minor role and have adequately 4.1% and 2.3%.

Specific distribution with the advantage of small local outlets and high percentage of own production and shopping by manufacturers is explained by the necessity of freshness in case of most milk products and possibility of manufacturing the dairy products in households or buying them nearby. The production process of basic milk products is not complicated and relatively cheap. Also the worries about the quality of mass-market offer and independence's inclination of households could affect the readiness to house produced dairy items.

In all segments the domination of convenience stores in share of indications is assumed for the mainly chosen distribution channel is a convenience store (Fig. 2).

## Age

There are a few interdependences (Table 2). Strong collocation with age for modern trade is well visible. 25.1% of people in age 20-29 buy dairy products in supermarkets. The share of supermarkets in segments drops according to the getting older of consumers, although the lowest share is in a group between 55 and 64 years. Age disposition for discount stores shows similar properties. The highest acceptance is by the quite young customers (15.6%) with dropping shares due to age progress. Convenience stores are popular among older groups. The convenience stores are most often visited by the oldest

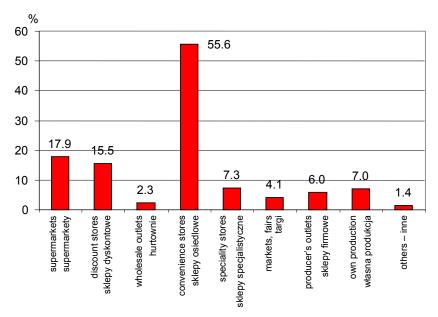


Fig. 2. The most frequently chosen places of purchase for dairy products in Poland Ryc. 2. Najczęściej wybierane miejsca zakupu produktów mlecznych w Polsce

group (63.6% of them come to this outlets). The middle group – people between 30 and 44, 45 and 54 year, visits the convenience stores the most seldom, adequately 56,5% and 57,4%. Specialized stores are chosen the most often by group between 30-40 year (9.1%). The producer's outlets are visited usually by older people and the youngest clients. Also the oldest group profit from own production most frequently (10.2%).

## Place of living

Considering the place of living we observe significant differences between the rural and urban areas. More than 30% of city-dwellers from the biggest towns (above 100 thousand) chose the most frequently supermarkets when shopping dairy products as well as the 28.7% of inhabitants from middle cities between 50 and 100 thousand dwellers. The smaller the location is the less population chooses a modern trade. Opposite tendency is observed by producer's outlets and own manufacturing of dairy products. The first possibility choose 12.9% of village residents, second option is used by 14.3% of persons in this segment.

## Number of persons in family

Households with many members are more willing to use producers' outlets and self supply. The big households in 15% buy often in producers' outlets and nearly 21% of them produce milk product for family use. Inversely the smaller households profit from self supply very rarely (1.1%). Producers' outlets are visited by 2.2% of then and it is the lowest result.

Table 2

Interdependences between chosen place of purchase for dairy products and consumer's characteristics Współzależności między miejscami zakupu produktów mlecznych a cechami konsumenta

| Współzależności między miejscami zakupu produktów mlecznych a cechami konsumenta | ci między miejs              | cami zaku <sub>]</sub>                         | pu produkt                        | ów miecznyci   | n a cechami   | konsume          | enta                              |  |        |
|--|------------------------------|--|-----------------------------------|--|---|------------------|-----------------------------------|--|--------|
|  | The most                     | frequently o                                   | chosen place                      | The most frequently chosen places of purchase (%) – Najczęściej wybierane miejsca zakupu (%) | (%) – Najcz   | zęściej wyl      | bierane mie                       | sca zakupu (                             | (%)    |
| Feature – Cecha  | supermarkets<br>supermarkety | discount<br>stores<br>sklepy<br>dyskonto<br>we | wholesale<br>outlets<br>hurtownie | convenienc<br>e stores<br>sklepy<br>osiedlowe  | speciality<br>stores<br>sklepy<br>specjalist<br>yczne | markets<br>targi | producer's outlets sklepy firmowe | own<br>production<br>własna<br>produkcja | others |
| 1  | 2                            | 3  | 4                                 | 5  | 9   | 7                | 8                                 | 6  | 10     |
| Age – Wiek   |                              |  |                                   |  |   |                  |                                   |  |        |
| 15-19 years<br>15-19 lat   | 12.3                         | 15.6   | 4.1                               | 58.2   | 4.1   | 3.3              | 7.4                               | 7.4                                      | 4.1    |
| 20-29 years<br>20-29 lat   | 25.1                         | 19.8   | 2.2                               | 48.8   | 9.9   | 5.1              | 4.6                               | 5.7                                      | 0.7    |
| 30-44 years<br>30-44 lat   | 19.2                         | 14.2   | 1.9                               | 56.5   | 9.1   | 3.4              | 6.0                               | 6.7                                      | 0.7    |
| 45-54 years<br>45-54 lat   | 12.6                         | 14.4   | 2.8                               | 57.4   | 8.6   | 4.6              | 6.7                               | 7.1                                      | 1.2    |
| 55-64 years<br>55-64 lat   | 9.6                          | 11.8   | 1.5                               | 62.5   | 3.7   | 5.1              | 9.9                               | 9.6                                      | 3.7    |
| More than 64 years<br>Więcej niż 64 lata   | 12.5                         | 10.2   | 2.3                               | 63.6   | 5.7   | 2.3              | 8.0                               | 10.2                                     | 2.3    |
| Average – Średnia  | 17.9                         | 15.5   | 2.3                               | 55.6   | 7.3   | 4.1              | 0.9                               | 7.0                                      | 1.4    |

Table 2 – cont.

| 1  | 2    | 3    | 4   | 5    | 9    | 7   | 8    | 6    | 10  |
|--|------|------|-----|------|------|-----|------|------|-----|
| Place of living<br>Miejsce zamieszkania  |      |      |     |      |      |     |      |      |     |
| Country – Wieś   | 10.5 | 10.6 | 1.0 | 57.0 | 6.5  | 4.0 | 12.9 | 14.3 | 1.9 |
| Town below 20 thous. of inhabitants Miasto liczące mniej niż 20 tys. mieszkańców | 15.4 | 16.2 | 2.4 | 55.4 | 10.6 | 2.7 | 3.2  | 4.2  | 1.3 |
| Town between 20-50 thous. inhabitants<br>Miasto liczące 20-50 tys. mieszkańców   | 20.5 | 16.2 | 1.3 | 60.4 | 10.4 | 3.9 | 2.3  | 1.9  | 1.0 |
| Town between 50-100 thous. inhabitants<br>Miasto liczące 50-100 tys. mieszkańców | 28.7 | 24.3 | 2.9 | 55.9 | 2.9  | 5.1 | 0.0  | 2.9  | 1.5 |
| Town above 100 thous. inhabitants Miasto liczące ponad 100 tys. mieszkańców      | 33.5 | 21.7 | 7.1 | 44.3 | 2.4  | 7.1 | 0.0  | 0.0  | 0.5 |
| Average – Średnia  | 17.9 | 15.5 | 2.3 | 55.6 | 7.3  | 4.1 | 0.9  | 7.0  | 1.4 |
| Number of persons in household<br>Liczba osób w gospodarstwie domowym            |      |      |     |      |      |     |      |      |     |
| 1  | 30.0 | 14.4 | 1.1 | 55.6 | 2.2  | 4.4 | 2.2  | 1.1  | 1.1 |
| 2  | 25.3 | 15.3 | 1.3 | 61.6 | 3.1  | 1.7 | 8.4  | 2.2  | 1.7 |
| 3  | 18.5 | 14.9 | 2.0 | 56.2 | 6.6  | 5.3 | 3.5  | 3.3  | 1.3 |
| 4  | 17.7 | 16.9 | 2.6 | 9.95 | 8.0  | 3.9 | 5.0  | 5.2  | 0.7 |
| S  | 11.4 | 15.9 | 4.1 | 49.0 | 8.2  | 5.3 | 8.6  | 13.9 | 1.6 |

Table 2 - cont.

| П   | 2    | 3    | 4   | 5    | 9   | 7   | 8    | 6    | 10  |
|---|------|------|-----|------|-----|-----|------|------|-----|
| More than 5<br>Ponad 5  | 9.6  | 12.0 | 1.2 | 52.1 | 9:9 | 3.6 | 15.0 | 21.0 | 3.0 |
| Average – Średnia   | 17.9 | 15.5 | 2.3 | 55.6 | 7.3 | 4.1 | 0.9  | 7.0  | 1.4 |
| Kind of employment<br>Rodzaj zatrudnienia                       |      |      |     |      |     |     |      |      |     |
| Contract of employment<br>Umowa o pracę                         | 20.5 | 17.3 | 1.9 | 54.5 | 8.9 | 3.8 | 4.7  | 4.3  | 8.0 |
| Economic activity<br>Działalność gospodarcza                    | 17.7 | 19.2 | 4.9 | 57.1 | 9.4 | 3.4 | 2.0  | 3.0  | 1.0 |
| Agriculture – Rolnictwo   | 8.5  | 6.2  | 1.6 | 51.2 | 4.7 | 4.7 | 17.1 | 28.7 | 8.0 |
| Pension, retirement payment<br>Renta, emerytura                 | 11.4 | 8.3  | 1.3 | 65.8 | 8.  | 3.9 | 9.9  | 8.3  | 3.1 |
| Noncommercial sources of income<br>Niezarobkowe źródło dochodów | 19.7 | 17.2 | 2.5 | 51.7 | 5.0 | 5.3 | 6.9  | 6.3  | 2.2 |
| Average – Średnia   | 17.9 | 15.5 | 2.3 | 55.6 | 7.3 | 4.1 | 0.9  | 7.0  | 1.4 |
| Monthly net income (zl) Miesięczny dochód netto (zl)            |      |      |     |      |     |     |      |      |     |
| 0-249   | 11.3 | 10.8 | 0.5 | 53.9 | 6.9 | 4.9 | 10.3 | 19.1 | 2.5 |
| 250-499   | 12.0 | 13.9 | 2.1 | 0.09 | 7.2 | 3.5 | 7.4  | 8.1  | 6.0 |
| 500-749   | 13.5 | 16.8 | 2.2 | 58.0 | 8.2 | 4.4 | 4.9  | 5.3  | 1.3 |
| 750-999   | 21.2 | 17.2 | 1.7 | 58.2 | 8.1 | 5.7 | 4.0  | 4.7  | 1.7 |
| 1000-1249   | 31.5 | 22.3 | 3.8 | 40.8 | 4.6 | 3.1 | 4.6  | 2.3  | 8.0 |

Table 2 – cont.

| -   | 2    | 3    | 4   | 5    | 9    | 7   | 8   | 6    | 10  |
|---|------|------|-----|------|------|-----|-----|------|-----|
| 1250-1499   | 31.8 | 10.6 | 7.6 | 53.0 | 7.6  | 4.5 | 3.0 | 0.0  | 1.5 |
| 1500-1749   | 48.1 | 11.1 | 3.7 | 33.3 | 3.7  | 0.0 | 3.7 | 0.0  | 3.7 |
| 1750-1999   | 34.6 | 19.2 | 0.0 | 38.5 | 11.5 | 0.0 | 7.7 | 3.8  | 0.0 |
| 2000 and more<br>2000 i więcej  | 50.0 | 14.3 | 7.1 | 42.9 | 3.6  | 0.0 | 7.1 | 0.0  | 0.0 |
| Average – Średnia   | 17.9 | 15.5 | 2.3 | 55.6 | 7.3  | 4.1 | 0.9 | 7.0  | 4.  |
| Type of family<br>Typ rodziny   |      |      |     |      |      |     |     |      |     |
| Traditional (many generations) Tradycyjna (wielopokoleniowa)                  | 11.0 | 12.6 | 3.0 | 56.7 | 6.2  | 4.6 | 7.8 | 14.5 | 1.3 |
| Nuclear<br>Jednopokoleniowa   | 19.8 | 16.3 | 2.1 | 55.2 | 7.7  | 4.0 | 5.5 | 4.8  | 1.4 |
| Average – Średnia   | 17.9 | 15.5 | 2.3 | 55.6 | 7.3  | 4.1 | 0.9 | 7.0  | 4.1 |
| Stage of family<br>Stan rodziny   |      |      |     |      |      |     |     |      |     |
| Single person<br>Osoba samotna  | 28.1 | 13.5 | 0.0 | 58.3 | 3.1  | 4.2 | 3.1 | 2.1  | 1.0 |
| Young family without children<br>Młoda rodzina bez dzieci                     | 39.5 | 22.2 | 3.7 | 46.9 | 1.2  | 3.7 | 1.2 | 2.5  | 0.0 |
| Family with children in kindergarten<br>Rodzina z dziećmi w przedszkolu       | 19.9 | 15.6 | 0.0 | 53.2 | 12.8 | 3.5 | 5.0 | 6.4  | 0.7 |
| Family with children between 6-18 years<br>Rodzina z dziećmi w wieku 6-18 lat | 15.5 | 11.9 | 3.6 | 57.7 | 0.6  | 4.1 | 4.6 | 7.2  | 1.0 |

Table 2 – cont.

|   | 2    | 3    | 4   | 5    | 9   | 7   | 8    | 6    | 10  |
|---|------|------|-----|------|-----|-----|------|------|-----|
| Family with grown- up children<br>Rodzina z dorastającymi dziećmi         | 15.2 | 19.0 | 2.0 | 54.6 | 7.5 | 5.0 | 5.2  | 7.0  | 1.5 |
| Family with independent children<br>Rodzina z usamodzielnionymi dziećmi   | 14.8 | 11.2 | 1.0 | 67.3 | 5.6 | 5.1 | 8.7  | 3.6  | 2.0 |
| Family with children in different age<br>Rodzina z dziećmi w różnym wieku | 14.5 | 15.3 | 3.2 | 51.2 | 8.5 | 3.6 | 10.9 | 11.3 | 2.0 |
| Not complete family<br>Rodzina z jednym rodzicem                          | 13.2 | 22.4 | 2.6 | 44.7 | 3.9 | 1.3 | 5.3  | 13.2 | 2.6 |
| Old family without children<br>Starsza rodzina bezdzietna                 | 38.9 | 13.9 | 2.8 | 52.8 | 0.0 | 2.8 | 5.6  | 5.6  | 0.0 |
|   | 17.9 | 15.5 | 2.3 | 55.6 | 7.3 | 4.1 | 0.9  | 7.0  | 1.4 |
|   |      |      |     |      |     |     |      |      |     |
| Elementary and not full elementary Podstawowe i niepehe podstawowe        | 11.8 | 9.0  | 9.0 | 57.3 | 3.4 | 5.6 | 8.4  | 11.8 | 2.8 |
| Basic professional education<br>Zawodowe                                  | 8.2  | 11.6 | 1.6 | 63.2 | 7.9 | 4.2 | 6.9  | 9.5  | 1.9 |
|   | 22.8 | 15.9 | 3.1 | 52.8 | 8.6 | 5.9 | 4.1  | 5.9  | 1.7 |
| Technical and professional, secondary<br>Średnie zawodowe i techniczne    | 16.9 | 19.1 | 3.0 | 55.9 | 7.6 | 2.3 | 6.4  | 9.9  | 9.0 |
|   | 28.7 | 17.7 | 2.3 | 48.1 | 7.2 | 4.3 | 4.9  | 3.2  | 6.0 |
|   | 17.9 | 15.5 | 2.3 | 55.6 | 7.3 | 4.1 | 6.0  | 7.0  | 1.4 |

#### Kind of work

Due to source of income we observe the dominance of persons engaged in economic activity (excluding agriculture) and working on a contract of employment in supermarkets and discount stores. Specialized shops and wholesale outlets are mostly chosen by independent businessmen (adequately 19.2% and 9.4%). Local markets are the most frequently visited by persons who benefit from non commercial sources of income. Farmers prefer their own production (28.7%) and producers' outlets (17.1%).

#### **Incomes**

Incomes influence the decision of choosing distribution outlets very visibly. The more consumers earn the more they prefer supermarkets. It is a general tendency. Discount stores are the most often visited by a group of pretty well-off customers with incomes ranging from 1750 zl to 1999 zl (19.2%) and middle class clients with incomes between 1000 and 1249 zl (22.3%). Far lower number of rich customers come to convenience stores. The same concerns own production.

## Type of family

Kind of family also divides the population. Nuclear families more often than traditional families visit supermarkets –19.8% versus 11%, discount stores 16.3% versus 12.6% and specialized stores 7.7% versus 6.2%. Significant percentage – 14.5% of traditional families produce dairy products in household.

## Stage of family

Families without children, no matter if mature or young ones, visit willingly supermarkets. In these retail outlets shopping is made by nearly 40% of each group. Inversely they relatively seldom pick out convenience stores. Discount stores are attractive for families with only one parent and young couples without children. These groups come in 22% to low priced shops. Specialized stores are mostly mentioned by families with small children with outcome amounted to 13%. Families with children at different ages and not complete families choose own production adequately in 11% and 13%.

### Education

28.7% of people with university education comes to supermarkets, but on contrary the lowest percentage of them visits convenience shops (48.1%). People with secondary education also like supermarkets, they mention them in 22.8% of cases and relatively seldom buy in convenience stores (52.8%). In turn 19.1% of persons with higher technical and professional education attend to discount stores.

## **Extend of own production**

The most popular milk product in in-house processing is sour milk. 23.6% of surveyed admitted that they produce it. Second best product for house processing is cottage cheese with 15.5% of indications. Butter is produced by 6.6% of households, what is very high result considering high time consumption and the quantity of milk needed. Yogurt also is produced in nearly 6% of households. Adequately 5.4 and 4.4% of households have kefir and cheese spread from farmers' own production (Fig. 3).

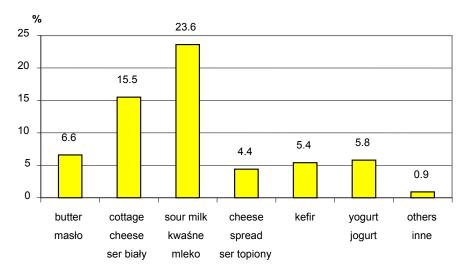


Fig. 3. Extent of house processing of selected milk products in Poland Ryc. 3. Samozaopatrzenie się w wybrane produkty mleczne w Polsce

## Dairy products in menu of Poles

#### Meals

For breakfast Poles prefer cottage cheese, hard cheese and butcher's products. They are eaten for breakfast adequately by 66.8, 62.7 and 68.7% of respondents with bakery products used by 94% of the surveyed persons. It is worth mentioning that breakfast is the most frequent occasion to consume both kinds of cheese. Dinner is dominated by meat and vegetables, which are eaten adequately by 91% and 78.7% of Poles. Here vegetables and meat appear most frequently. Late dinner with supper again consists mainly of meat (16.5%) and vegetables (16.3%). Afternoon snack is mainly associated with fruits (39.1%). The last meal is based on bakery products (81.7%) and butcher's products (74.4%). Cheeses are the second best topping. They are ingredients of supper in 38.5% for cottage cheese and in 53.4% for hard cheese. The most frequently chosen snacks are fruits, which are consumed by 62.7% of Poles and are the most often eaten by this occasion (Fig. 4).

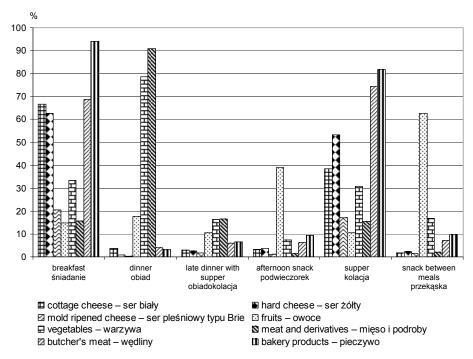


Fig. 4. Occasions for eating milk products in Poland Ryc. 4. Posiłki, podczas których spożywa się produkty mleczne w Polsce

#### **Drinks**

Milk drinks are not popular in Poland. Breakfast is dominated by tea which is drunk by 63.7% of population, next is coffee and later appears milk (29.6%) and cacao (21.5%). Natural fruit juice salad is drunk for dinner most often (59%). Juice dominates combined late dinner and supper. Coffee is the most popular at afternoon snacks (23%). Tea is drunk mainly for supper which is indicated by 72.5% of the surveyed. Between meals there is preference of mineral water (40.5%). Generally the consumption of milk products occurs mainly at breakfast. Also afternoon snack consists of kefir or yogurt in 10.5% of cases. Milk accompanies supper only in 13.8% and cacao in 10% (Fig. 5).

## **Conclusions**

The results of the survey show, that the most often mentioned reason of reluctant attitude towards dairy products is taste. The highest intolerance connected with taste appears with buttermilk (10.3%). On the opposite side is butter which is not accepted only by 2.2% of the population. Health is second important reason for avoidance. Extremely high outcome is found in this section and concerns cream. 11.2% of the population admit that it threatens their health. In turn cottage cheese is considered to be less harmful, for

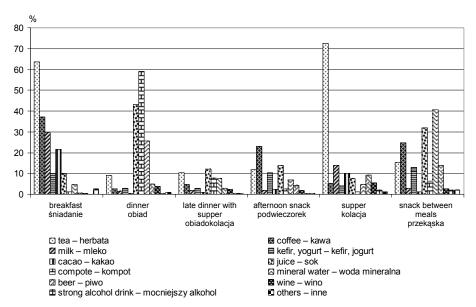


Fig. 5. Occasions for consumption of milk drinks in Poland Ryc. 5. Posiłki, podczas których pije się produkty mleczne w Polsce

only 1.3% of persons evade it, because of health consequences. Cost is crucial for hard cheese. 2.9% of the population try to avoid it because of financial consequences.

Distribution of dairy products is dominated by convenience stores. They are chosen by 55.6% of the population. The less popular channel is a wholesale outlet, only 2.3% of people do shopping there. Nearly 18% of population prefers supermarkets.

Own production is the highest in case of sour milk, where 23.6% of population deal with house processing of the product. Cottage cheese is mentioned by 15.5% of population in contrast to cheese, spread which is consumed only by 4.4% of the population.

The best occasion for consumption of milk and derivatives appears during breakfast. 66.8% of the examined say they eat cottage cheese then. Hard cheese is mentioned by 62.7% and mold cheese by 20.5%. The second good occasion for the consumption is supper.

Milk drinks accompany mainly breakfast, when 29.6% of population usually drink plain milk and 21.5% cacao. Yogurt is the best milk snack between meals for nearly 13% of population.

Reasons of avoidance indicate potential areas of improvement. Partly the weaknesses of dairy products are profited by substitutes like low cholesterol margarines, artificial creams, array of light soft drinks with attractive flavours (juices combined with calcium and microelements). Nevertheless they cannot replace the unique characteristic of natural milk products.

Convenience stores will remain for long the main distribution channel of dairy products for they are consumed fresh and very frequently.

The extent of house processing is very high as the significant part of population lives in rural areas with easy access to milk. This is also a way of making a household independent from external resources (**Żelazna** et al. 2002).

Dairy products are mainly popular for breakfasts.

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## STRUKTURA I PRAWIDŁOWOŚCI DOTYCZĄCE KONSUMPCJI PRODUKTÓW MLECZNYCH – UNIKANIE, KANAŁY DYSTRYBUCJI, SAMOZAOPATRZENIE, OKAZJE SPOŻYWANIA

#### Streszczenie

Praca ma na celu scharakteryzowanie konsumenta produktów mlecznych w czterech wybranych wymiarach:

- 1) przyczyn rezygnacji z konsumpcji,
- 2) miejsc zakupu produktów mlecznych,
- 3) przetwarzania mleka we własnym zakresie,
- 4) okazji spożywania produktów mlecznych.
- Wyniki badań przedstawiają się następująco:
- 1) najczęstszym powodem odrzucenia produktów mlecznych jest ich smak,
- 2) najczęstszym miejscem zakupu są sklepy osiedlowe położone blisko miejsca zamieszkania respondentów.
  - 3) produkcja własna przetworów mlecznych dotyczy znacznego procentu badanych,
  - 4) produkty mleczne najczęściej są konsumowane podczas śniadania.