

COMPARISON OF CONSUMPTION ON THE FOOD MARKET BETWEEN SLOVAKIA AND AUSTRIA

A CROSS-SECTIONAL STUDY

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THE paper targets the consumption of the chosen food products in Slovakia and Austria. The consumption of food is related to every inhabitant. There are socio-economic conditions, traditions, culture and total standard of living reflected in it. Besides the product prices, decision-making of the consumer on the food market depends also on the income. Austria is considered to be a dynamic developed industrial country, which belongs to the group of the most wealthy countries in the European Union. The economy of Slovakia, even after entering the European Union, remains to fall behind the level of the near-by Austria, namely not only in economics productivity and efficiency but also in the income level. The target of this paper is to find out which factors influence the Slovak and Austrian consumer behaviour in the chosen food products purchasing, which are the items of everyday consumption. Our marketing research of the above mentioned markets is based on the questionnaire method.

Key Words: *Food Consumption, Price Development, Consumption Expenses, Household Income, Consumer behaviour.*

Introduction

For all of us, one of the most important consistent values is the fact that in spite of all differences everybody is the consumer. All of us regularly consume the food, use the clothes, transportation, different goods and services. Our consumer behaviour influences the demand for the basic materials and products which are able to influence employment and sources development. On the present dynamic developed market the sellers have to know their customers-their wishes, style of work, ways of thinking and spending their leisure time (Nagyová, Stávková and Tonkovicová, 2008). The sellers have to understand the influences, that affect the decision process of consumers.

In the selection of the goods, each consumer is limited by the income and prices that have to be paid and it is the consumer's ambition to reach the highest possible level of demand satisfaction in a frame of these restrictions (Grüner, 2009).

Consumer behaviour of inhabitants is from the short-term point of view determined by income development, changes in the price development of the goods, size and structure of the offer on the consumption market (Jamborová, 2005).

From the long-term point of view is this behaviour affected by demographic development, conventional consumer habits and precise cultural ideals. In the structure of the consumer expenses have an important share of the expenses on the foodstuff and non-alcoholic beverages in Slovakia (Kubicová, 2008). Comparing to the countries with the advanced market economy, this market share is really high.

In the EU-15 are the share of expenses on the foodstuff and beverages of the total expenses inversely dependent on the household incomes. As the expenses on the foodstuff and beverages increase, their share of the total expenses decrease. The similar trends could be also seen in Slovakia.

Material and Methods

Basis for solving the given problem was taken from the official publications of the Statistical Office of the Slovak republic and Statistik Austria. Information about consumer food buying behaviour were

taken from Agrarmarket Marketing company's research in Austria and from our the self-administrated written questionnaire research.

Findings and Results

Various elements influence the food expenses but the most important are the economic ones. It means that the decrease of foodstuff expenses is subjected to economic growth and income increase. The food consumption is influenced by GDP progress, real income development, prices of the foodstuff, services and industrial goods. Differences in the foodstuff consumption are based on the different income level of the inhabitants in Slovakia and in Austria.

Figure 1 presents that in the year 2008 average monthly income in Slovakia was only 723 €, while in Austria it was 1901 €. Incomes of inhabitants of Slovakia and Austria were not the same at all. Despite of this fact, the leeway of Slovakia slowly became to shorten. While in the year 2000, employees in Austria earned 4.3 times more than employees in Slovakia – in the year 2008 it was only 2.6 times more. The faster growth rate was reached in the period of 8 years, when the average monthly income increased about 8.5% per annum, while in Austria the increase was only about 1.94% per annum.

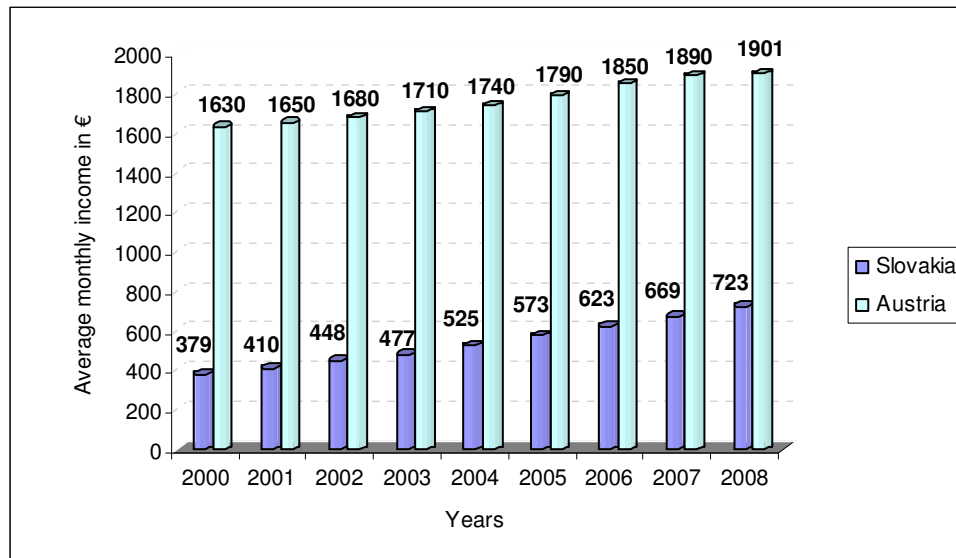


Figure 1: Average Monthly Income in Slovakia and in Austria (in Euros)

Source: Statistical Office of the Slovak Republic, Statistik Austria.

Consumer decision on the foodstuff market depends besides the income on the product prices. The consumer price is one of the factors which influences demand for the particular product or service. The foodstuff prices have the special position in the area of the consumer prices of the products and services. There are two basic effects reflecting in the consumer prices. One of them is the nourishing function, which has tendency to pull the consumer price of the foodstuff downwards and the second one is economic conditionality, whose increasing limitation has tendency to push the consumer prices of the foodstuff upwards. In the frame of this action, it is difficult to find the level of equilibrium. The price strongly influences consumer demand. Current price influences not only demand but also supply because the producers and processers compares the reached prices of their products with expended production costs. During the watched period there were lower income level in Slovakia than in Austria, also in the year 2008 the foodstuff prices were lower in Slovakia than in Austria.

Consumption expenses represent the amount of expenses on the products and services. Statistical Office of the Slovak republic use the qualification of the finding items within the statistics of the family bills (qualification of the individual consumption according to purpose COICOP). In this statistics, the household expenses are divided according to the purpose of use, it means according to the intention on which money has been spent or which part of the living standard has been satisfied by products and services.

Consumption expenses depend on the consumer habits of region, its culture and traditions on the one hand but these also reflect the concrete socio-economic situation of the particular households and given economic environment on the other hand. Generally the truth is: The poorer the country is, the higher expenses have to be paid to satisfy the basic needs as the food, living, water, electricity, gas and fuel and lower expenses to satisfy the so-called “higher needs” as education, culture and vacations.

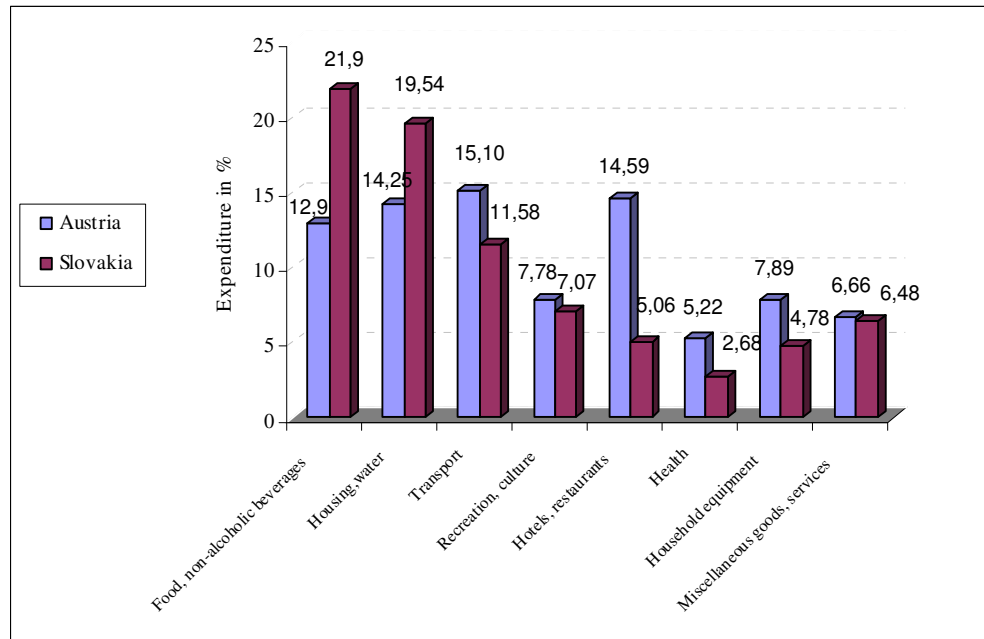


Figure 2: Comparison of the Consumption Expenses of Households in Slovakia and in Austria in the Year 2008 per person (in %)

Source: Statistical Office of the Slovak Republic, Statistik Austria, and Own Calculations.

In the structure of the final consumption of the private households in Slovakia, the highest part within the consumer expenses is created by expenses on food and non-alcoholic beverages buying. Despite the fact that their progress in the mentioned period of 9 years has been decreasing and since the year 2000 has decreased from 28.4% to 21.9% in the year 2008, their part in expenses structure of the households is still high. Decreased part of the food expenses is accompanied by slow downturning of material consumption of some kinds of the food and by demand for the cheaper food, as well as fluctuating the consumer prices of the food. There are living expenses on the second place of the total consumption expenses (Figure 2). In the year 2000 these were on the level of 17.8% and had an increasing tendency. Their growth is the result of the electricity, gas, water and warmth price raising that their share in a frame of the consumption expenses have increased about 1.7% and reached the level of 19.54% in the year 2008. The third most important item represents the travel expenses. In 2000 they were on the level of 8.5% and in the watched 9 year period have increased about 3% to reach the level 11.58%.

The most important part in household expenses in Slovakia is still created by food and non-alcoholic expenses, but their share has decreasing tendency year by year. The structure of the consumption expenses of the households in Slovakia is close to the structures of EU-15 countries.

On the base of the statistical data, in 2008 the inhabitants of the neighbouring Austria (Figure 2) spent the most money on traveling, living and energies followed by foodstuff expenses and non-alcoholic beverages expenses.

Comparison of the Chosen Foodstuff Consumption Development in Slovakia and Austria

In Slovakia in 1989 the food consumption of majority of the foodstuff was balanced. Transformation of the Slovak economy has reflected in economic and trade possibilities of inhabitants. The market in Slovakia was opened and the supply was extended by entry of the European Union. Entrance of the international chain stores influenced the supply and demand mainly by wider availability and the level of presentation and selling of the products in international standardized conditions. An important factor from the consumption of foodstuff's point of view is the age structure of the inhabitants, which assigns their aging. From the other factors influencing the foodstuff consumption could be mentioned as well as decreasing family size and increasing inhabitant's level of education. Changes into development of foodstuff consumption were brought by unstable growth of incomes and expansion of income differentiation of inhabitants. After 1998 the consumption of the animal products, mainly beef and veal, pork and milk has decreased (Figure 3, 4).

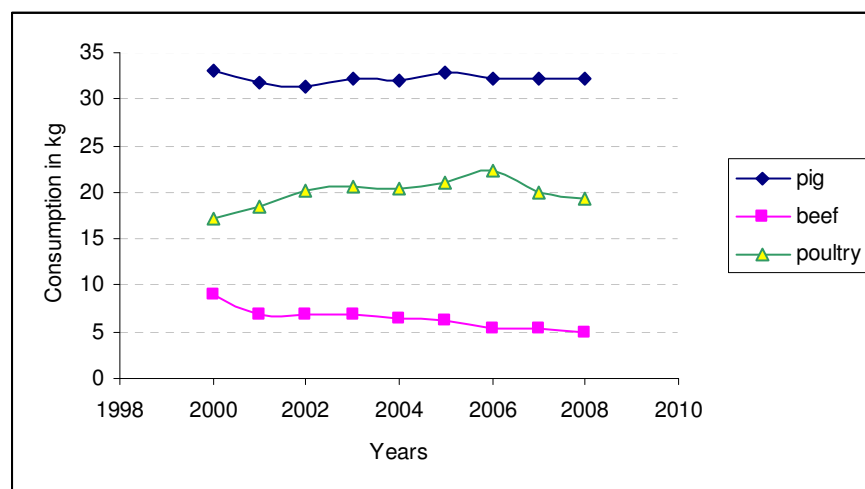


Figure 3: Development of Meat consumption in Slovakia

Source: Statistical Office of the Slovak Republic.

Tendency of development of particular meat consumption could be written in linear functions with following parameters:

$$\text{Pig } Y_t = 32,18 + 0,006 * t \quad R^2 = 0,0335$$

$$\text{Beef } Y_t = 8,49 - 0,41 * t \quad R^2 = 0,911$$

$$\text{Poultry } Y_t = 18,45 + 0,29 * t \quad R^2 = 0,537$$

Milk and dairy products have an irrecoverable position in everyday food consumption. Development of the milk consumption has decreasing tendency and as from the trend function results there is an

average annual decrease of about 2.685 kg. Since the year 2000, the consumption of milk has decreased about 18.5 kg - from 69.4 kg to 50.9 kg in the year 2008 per person per year. Reasonable decrease was noticed in butter consumption from 2.2 kg in 2000 to 1.7 kg in 2008 per person. Rapid decrease of milk consumption was caused by price raising, decrease of inhabitants' effective demand and weak advertisement of dairy products. Decrease of milk consumption was partly substituted by increasing cheese consumption, average about 0.336 kg per year.

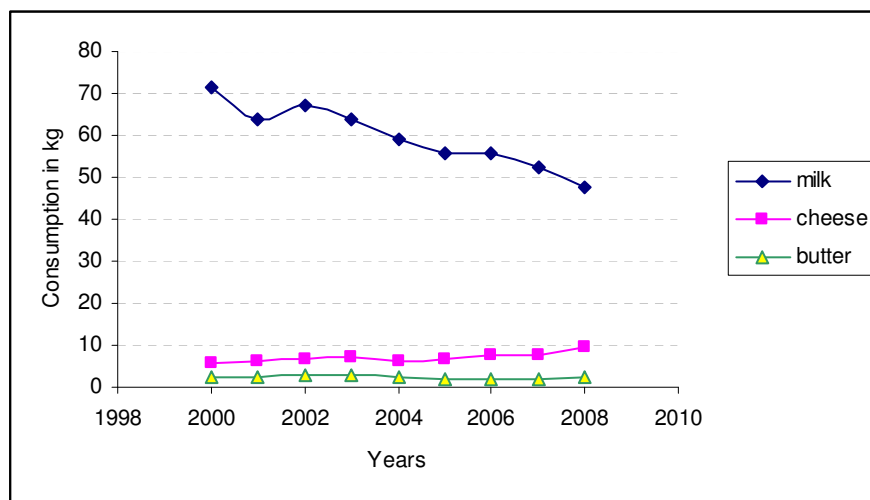


Figure 4: Development of Milk, Cheese and Butter Consumption in Slovakia

Source: Statistical Office of the Slovak Republic.

Tendency of development of milk, cheese and butter consumption could be written in linear functions with following parameters:

$$\text{Milk } Y_t = 73,09 - 2,685 t \quad R^2 = 0,967$$

$$\text{Cheese } Y_t = 5,42 + 0,336 t \quad R^2 = 0,856$$

$$\text{Butter } Y_t = 2,63 - 0,062 t \quad R^2 = 0,478$$

In Austria the food consumption during the watched period was developing similarly to situation in Slovakia. Decrease of beef and pork and increase of poultry consumption was noticed (Figure 5).

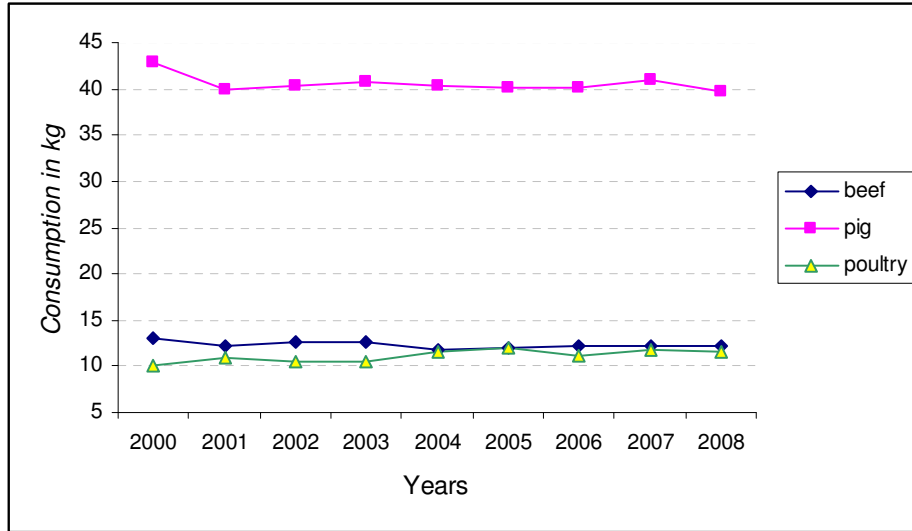


Figure 5: Development of Meat Consumption in Austria

Source: Statistik Austria.

Tendency of development of particular meat consumption could be written in linear functions with following parameters:

Pig $Y_t = 41,44 - 0,178t$ $R^2 = 0,531$

Beef $Y_t = 12,75 - 0,082t$ $R^2 = 0,587$

Poultry $Y_t = 17,23 + 0,298t$ $R^2 = 0,786$

In comparison with Slovakia, there is a higher consumption of beef and veal in Austria while the differences in poultry consumption are minimal. Decrease in poultry consumption was in both countries average about 0.298 kg per person per year.

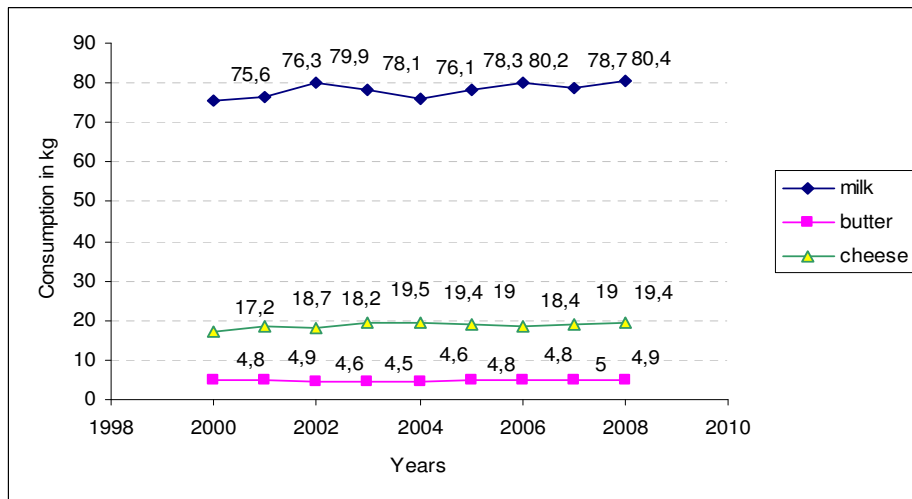


Figure 6: Development of Milk, Cheese and Butter Consumption in Austria

Source: Statistik Austria.

Decreasing tendency of particular commodity consumption (from Figure 6) could be written in following linear functions:

$$\text{Milk } Y_t = 75,91 + 0,453 t \quad R^2 = 0,678$$

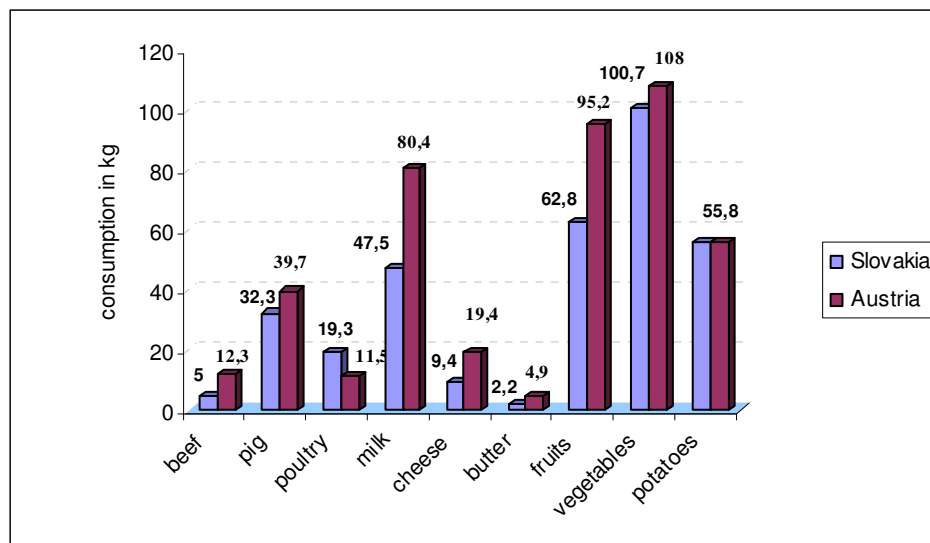
$$\text{Butter } Y_t = 4,65 + 0,023 t \quad R^2 = 0,385$$

$$\text{Cheese } Y_t = 17,96 + 0,160 t \quad R^2 = 0,593$$

Development of dairy products consumption in Slovakia points at the decreasing tendency of milk, cheese and butter consumption. In Slovakia, it was noticed that only cheese consumption decreased.

The differences in result from the comparison of substantial level of consumption of various nutritious foodstuff. As could be seen in Figure 7, in the year 2008 in Austria the consumption of beef and veal was 2.4 times higher, milk 1.7 times higher, cheese and butter 2.1 and fruit 1.5 times higher than in Slovakia.

Historically conditioned consumer habits and climatic identity in both countries could be seen in compatible level of demand for the food as poultry, beef, vegetable and potatoes. Lower or decreasing level of milk, butter and fruit consumption is influenced by the lower income level of the Slovak households. The most important factor in this development is just the short time after Slovak economy transformation.

**Figure 7: Consumption of Chosen Foodstuff in 2008 in Slovakia and Austria**

Source: Statistik Austria and Statistical Office of the Slovak Republic.

Comparison of Consumer behaviour in Foodstuff Buying in Slovakia and Austria

Based on our own questionnaire research and the research of Agrarmarket Austria Marketing company in Austria (Agrarmarket Austria Marketing, 2009), we would like to point at the consumer behaviour in basic food buying.

What is Important for You When Buying the Food?

According to answers of the respondents of our marketing research, the factor that influences the consumers the most of all (Figure 8) is the price of the food (30 %). The second most important factor influencing consumer decision is freshness of the food (27%), the third one is quality (13%), followed by date of consumption (10%), country-of-origin (8%), compound (7%) and producer (5%).

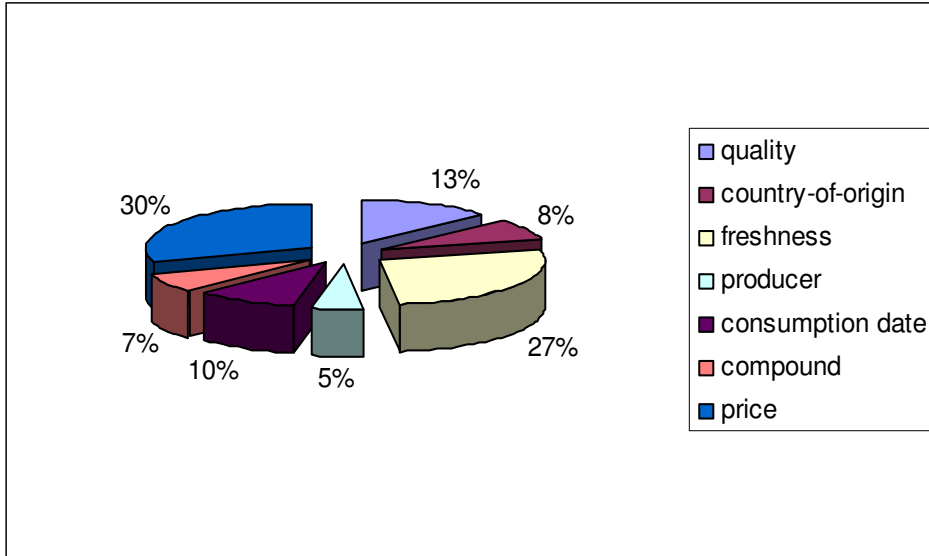


Figure 8: Factors Influencing Food Buying Decision in Slovakia

Source: Own Research.

In the conditions of the Austrian households (Figure 9) was found out that majority of respondents are influenced by country-of-origin of the food (28%). The second most important factor influencing consumer decision is price (25%), the third one is date of consumption (18%) followed by freshness of the food (14%), producer (9%), quality (3%) and compound (3%).

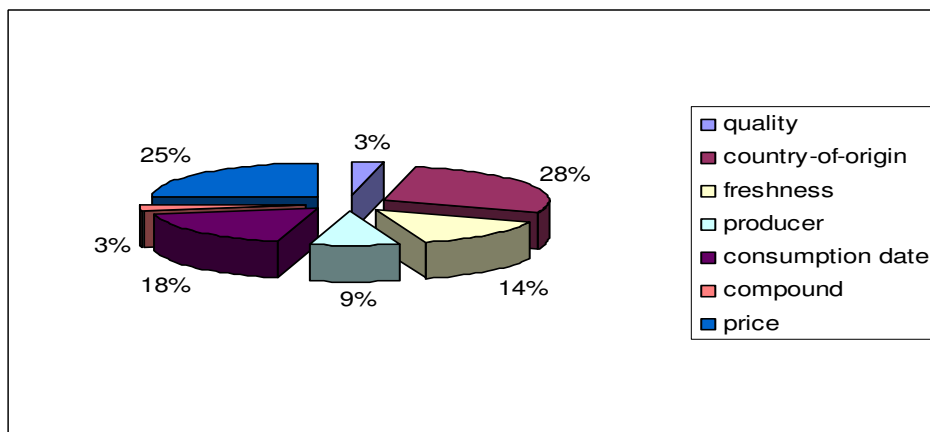


Figure 9: Factors Influencing Food Buying Decision in Austria

Source: AMA.

What are three the most important reasons to buy the following food: milk, cheese, beef, pork, poultry, fruit and vegetables?

In Slovak households- the most important factor when buying the food in general (Table 1) is freshness (80-91 %). The bargain price is also very important for all mentioned food (65-78%). Attention is paid to domestic products, mainly milk (71%) and meat (58-63%), as well as cheese (28%), fruit and vegetables (26%). The appearance has the most important position when fruit and vegetables buying (65%), and it is not so important for milk (22%). Wide selection is asked for cheese (60%) and fruit (51%), while the wide selection is not so important in beef (25%), pork (23%) and poultry (23%). Bio product is not so important for Slovak consumer (bio-cheese would prefer only 9% of respondents, bio milk 11% and bio fruit and vegetables 14% respondents).

Table 1: Preferences in Buying the Chosen Food in Slovakia

Reasons to buy Product	Bargain price	Freshness	Appearance	Household product	Bio product	Wide selection
Milk	72%	89%	22%	71%	11%	35%
Cheese	78%	86%	38%	28%	9%	60%
Beef	75%	86%	55%	58%	0%	25%
Pork	71%	88%	55%	63%	0%	23%
Poultry	72%	91%	52%	62%	0%	23%
Fruit and vegetables	65%	80%	65%	26%	14%	51%

Source: Own Research.

Austrian consumers, as it can be seen in Table 2, prefer the freshness of the food as the most important attribute. Attention is on household products buying, mainly milk (71%), poultry (63%), pork and beef (61%). The bargain price has almost the same importance for all mentioned foods (42-48%). The appearance influences the fruit and vegetables buying the most (58%), but appearance is not so important for milk (20%). Wide selection is asked for cheese (24%) and fruit (18%), while the wide selection is not so important in beef (7%), pork (7%) and poultry (5%). Respondents would buy the bio product, mainly bio milk (19%) and bio fruit and vegetables (18%).

Table 2: Preferences in Buying the Chosen Food in Austria

Reasons to buy Product	Bargain price	Freshness	Appearance	Household product	Bio product	Wide selection
Milk	46%	70%	20%	71%	19%	11%
Cheese	44%	62%	39%	53%	17%	24%
Beef	47%	84%	46%	61%	17%	7%

Pork	48%	81%	46%	61%	15%	7%
Poultry	45%	83%	48%	63%	16%	5%
Fruit and Vegetables	42%	84%	58%	42%	18%	18%

Source: AMA.

What does the Food Quality Mean for You?

Mentioning the quality in Slovakia, 29% of respondents connect the quality of the food with its freshness (Figure 10). For 21% respondents the quality means healthy food and 22% respondents would connect quality of the food with using no artificial flavours. 17% respondents award the flavour of the food and 11% appreciate the country-of-origin which is a sign of product quality for them.

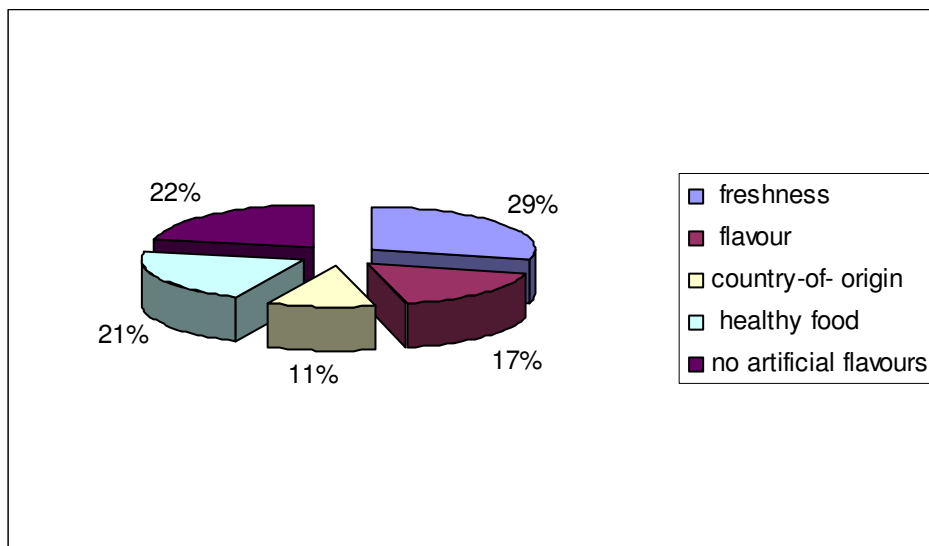


Figure 10: Importance of Quality for the Slovak Consumer

Source: Own Research.

When asking about the quality in Austria (Figure 11), 44% of respondents believe that quality is connected with the freshness. The country-of-origin is a synonym of quality for 25% respondents. Good flavour of food is quality assurance for 14% of asked Austrian consumers. 11% respondents trust the quality food with no artificial flavours and 6% consumers would buy the healthy food because they believe that this kind of food means quality.

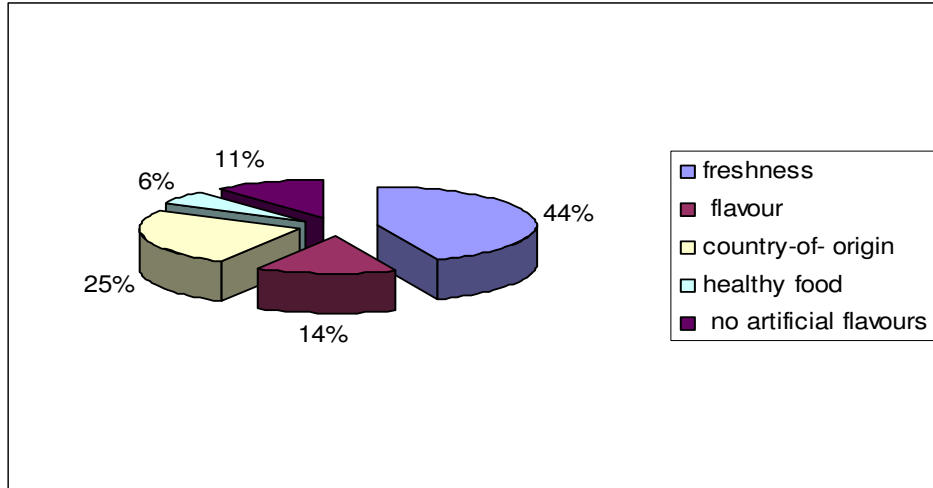


Figure 11: Importance of Quality for the Austrian Consumer

Source: AMA.

Which Requirements on Milk are the Most Important for You?

From market research in Slovakia (Figure 12) it is obvious that the most important requirement of consumers on milk is “freshness” (83%). The second most important requirement belongs to inquiry “natural - not artificial flavour” (74%), followed by requirements: “no dyes and conservation materials” (46%), “bargain price” (42%), “domestic product” (40%) and “strict quality control” (37%).

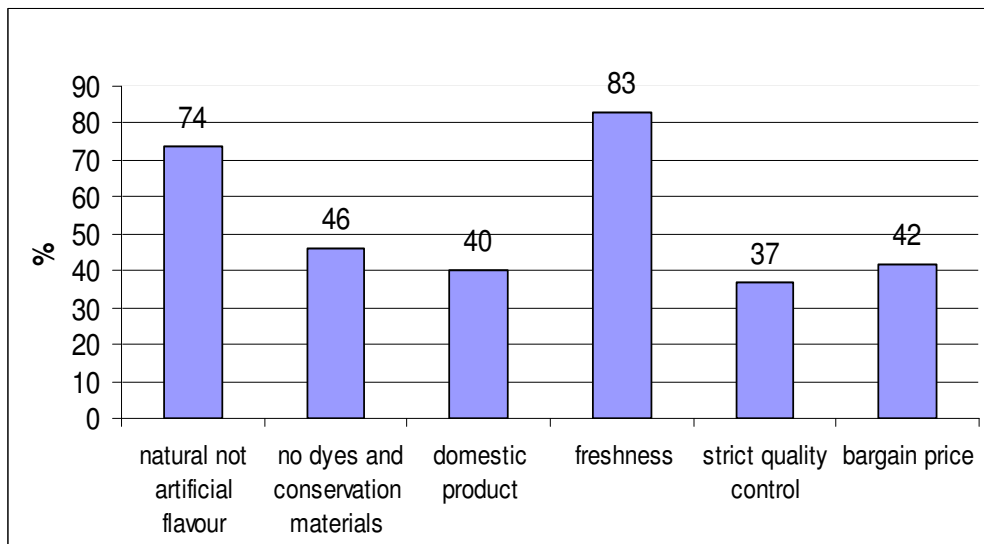


Figure 12: Requirements of Slovak Consumer on Milk

Source: Own Research.

For Austrian consumers (Figure 13), the most important requirement of consumers on milk is “natural - not artificial flavour” (67%). The second most important requirement belongs to inquiry “no dyes and conservation materials” (61%), followed by requirements: “domestic product” (58%), “freshness” (48%) and “strict quality control” (48%). “Bargain price” is the most important requirement for 43 % Austrian consumers.

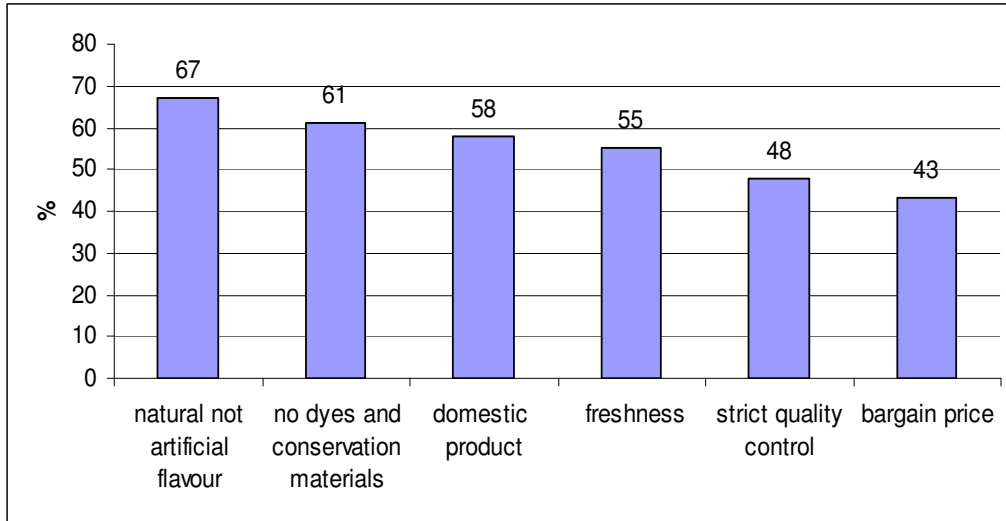


Figure 13: Requirements of Austrian Consumer on Milk

Source: AMA.

Which Requirements on Meat are the Most Important for You?

For Slovak consumers (Figure 14), the most important requirement on meat is “freshness” (85%). The second most important requirement is “natural - not artificial flavour” (78%), followed by requirements: “appearance” (66%), “domestic product” (55%), “bargain price” (48%), and “strict quality control” (42%).

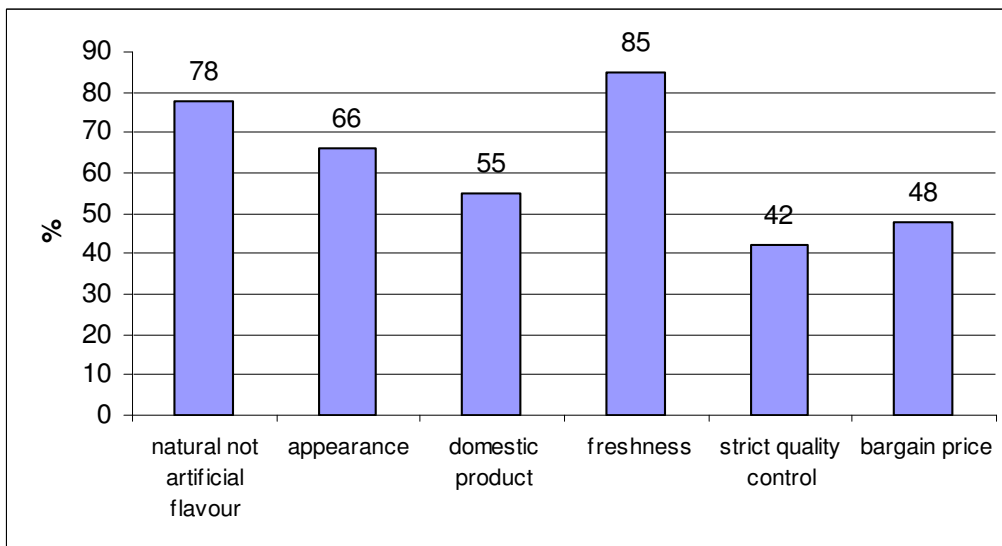
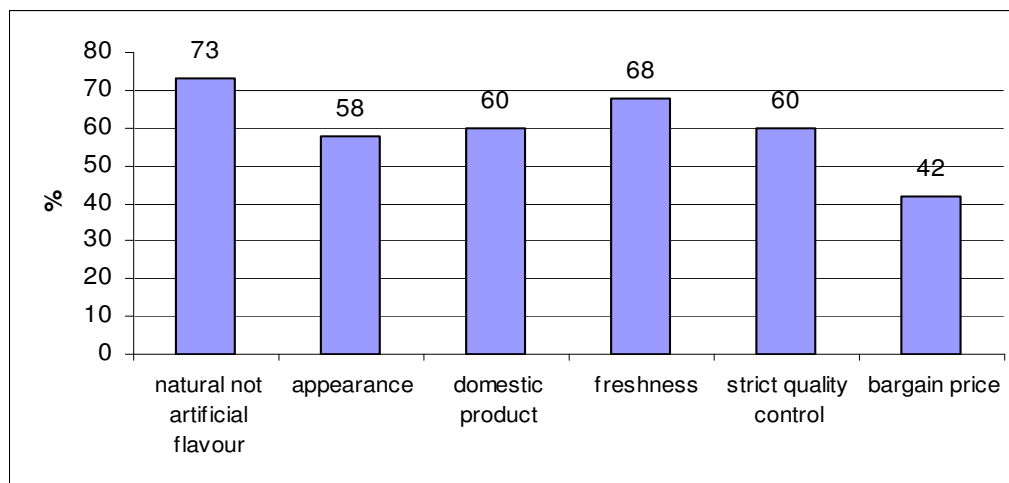


Figure 14: Requirements of Slovak Consumer on Meat

Source: Own Research.

For consumers in Austria, (Figure 15) the most important requirement of consumers on meat is “natural - not artificial flavour” (73%). The second most important requirement is “freshness” (68%) followed by requirements: “strict quality control” (60%), “domestic product” (60%) and “appearance of the meat” (58%). “Bargain price” is the most important only for 42% of consumers in Austria.

**Figure 15 Requirements of Austrian Consumer on Meat**

Source: AMA.

Conclusion

Realized marketing research of consumer food shopping behaviour in Slovakia and Austria shows constantly increasing concern of consumers over quality, fresh and domestic products. While importance of bargain price of food in Austria wanes, in Slovakia the bargain price appears as important factor influencing the food buying. Majority of consumers of both countries believe in importance of the food freshness. The similar accent is on the country-of-origin of the foodstuff, when domestic products are preferred, especially milk (71%) and meat (61-63%). Bargain price is also very important for Slovak consumers (65-78%). Austrian consumers require higher quality control and these consumers are very sensitive on the country-of-origin of the food.

Success of the food products on market requires research of consumer behaviour. Using the advertisement is necessity in selling domestic products which have to be also competitive in price and quality. Increasing incomes, delaying consumer prices and decreasing unemployment are necessary for demand increase.

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