

## CONSUMPTION PATTERNS OF PORK IN SOUTH-EAST HUNGARY

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**Abstract:** *In the course of the study, we sought the answer to the question of what characterizes the consumption of pork in the Southern Great Plain Region by means of a questionnaire. Among other issues, we examined the frequency of consumption, the amount consumed, and the popularity of different parts of meat. It was characteristic of the respondent group that consumption is influenced by income, education, weekly pork consumption, and pork is considered a healthy food.*

**Key words:** *consumption pattern, pork, marketing, price, health*

### INTRODUCTION

Pork has played a significant role in the world's diet for thousands of years, making pork a major livestock sector worldwide. In 2016, according to statistics, the largest consumers of pork per capita over 20 kilograms per person were: European Union (32.3 kg/capita); China (30.8 kg/capita); Vietnam (28.9 kg/capita); and United States (22.8 kg/capita) [12]. According to the forecasts, the amount of pork produced will show an increasing trend in the coming years, thanks to which it will approach 130 million tons by 2023. China will provide the largest share of this amount because pork is the most popular type of meat among the population. This "popularity" is generating increasing consumption and increasing demand, which in turn is increasing pork production. In the case of China, the consumption of pork is not limited by culture and religion [15]. Some researchers point out that pork consumption varies greatly between pork-consuming countries and that consumers make their consumption decisions based on a wide range of quality characteristics; therefore, preferences are heterogeneous [10].

The age of two hundred days and the average slaughter weight of 115 kg for pigs reared on private farms are optimal for both their own consumption needs and for sale, in which case the ability to sell feed and the production of meat for cod and traditional products is the most favorable. As we age, the dry matter and fat ratio of fattening animals increase, but the relative amount of protein decreases. High-quality meat can be obtained by slaughtering animals weighing 115 kg when they are still high in protein and low in fat. The water content of meat decreases as the animals' age and gain weight [5].

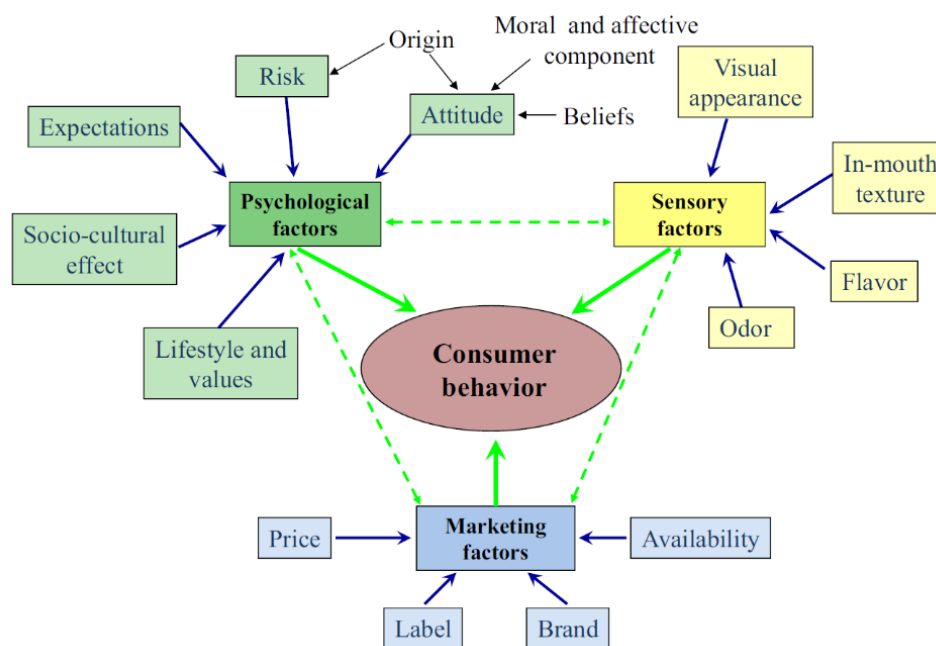
Martinez et al. (2012) found no difference in preference tests, and feeding Iberian pork acorns or concentrate did not affect consumer preference. The result is presumably due to the fact that nowadays fattening pigs in the farms are fed concentrates supplemented with monounsaturated fatty acids (sunflower oil with a high oleic acid content) to obtain a muscle-fatty acid composition similar to that of pigs fed acorns.

Analyzing the responses of the Romanian population, the experience is that the main factor in buying meat and meat products is the size of the price, the method of packaging and then the producer. 56% of respondents are satisfied with the range of meats and meat products available in stores, but 44% would like more than at present. 51% of respondents prefer pork, 37% poultry, 9% beef and 3% fish. When choosing stores, the quality of the product matters at 76% and the promotion at 24% [11]. Based on the age of consumers, poultry is preferred under the age of 18, and pork for other age groups [6].

The natural conditions of meat production are effects that are not affected by the level of consumption. This suggests that not only the demand for meat is the driving force behind production, but that production to some extent determines what animal species and

how much meat is consumed in a country. The relationship between domestic demand and domestic production is less significant if countries have the opportunity to import from abroad or export in the event of oversupply. This context suggests that the market for ruminant meat is less integrated than the world market for monogastric animals. Thus, the rate of total meat consumption in each country is less dependent on domestic production conditions than the consumption of meat from ruminant species [8].

Several determinants shape consumer behavior in relation to meat (Figure 1). Consumers' expectations, behavior and perceptions of meat and meat products are heterogeneous, depending not only on the appearance and organoleptic characteristics of the meat, but also on psychological and marketing aspects. Strengthening positive attitudes (eg through better communication) and ensuring that meat meets consumer expectations - will increase the competitiveness and potential market share of meat and meat products vis-à-vis alternative protein sources [2].



**Figure 1. Multidisciplinary model of the main factors affecting consumer behavior in a food domain [2]**

Data of surveys show that consumption of fresh meat is under change. Despite the long-term favorable development, there has been a relative decline in the consumption of fresh pork in recent years. The results of surveys of attitudes and beliefs about fresh meat show that pork ranks worst compared to beef and poultry in terms of “leanness” and “healthiness” and in terms of nutritional properties or organoleptic quality [14]. When a consumer decides to buy pork, he takes into account a number of internal and external characteristics related to the goods, such as the color, fat content, marbling of the meat, and food safety, price, nutritional value, and so on. The decisive factor is the individual experience of the consumer, which is related to the characteristics of the product, such as leanness, juiciness, taste and aroma. Nowadays, there is a growing interest in external factors such as animal welfare, food safety, traceability, and so on towards [13; 16].

Among the aspects taken into account during the purchase, the fat content, the components of the product, the healthy diet, the manufacturer/brand, the Hungarian product and the packaging are important [9].

Consumers often consider their decisions about the quantity and quality of meat products in relation to each other. A reduction in quantity can usually be accompanied by an improvement in the quality of the products purchased. For meat products, there are already various quality recommendations that are labeled to consumers (e.g. label rouge, geographical indications, organic). According to consumer opinions, some people are willing to accept “less but better” meat. In this context, research shows that a significant part of the European population is becoming 'flexible' (i.e. eating meat only occasionally, or only once a week) [1]. Researchers are studying real-life programs, combining traditional meat-based default eating options with more plant-based eating options. This can help provide additional evidence to support the effects of changes in societal norms in real-world circumstances or to influence changes in intent or actual behavior [4].

The results of different studies are difficult to compare because the information reported varies from one outcome to another, and such information affects the opinions of both researchers and consumers. According to the attitudes and beliefs of consumers, several segments can be formed; therefore it is important to know the characteristics of consumers thoroughly [3].

The study aimed to assess how the pork consumption habits of the population are developing in the Southern Great Plain region (Hungary), which has long been a grain-producing and pig-holding area.

## MATERIALS AND METHODS

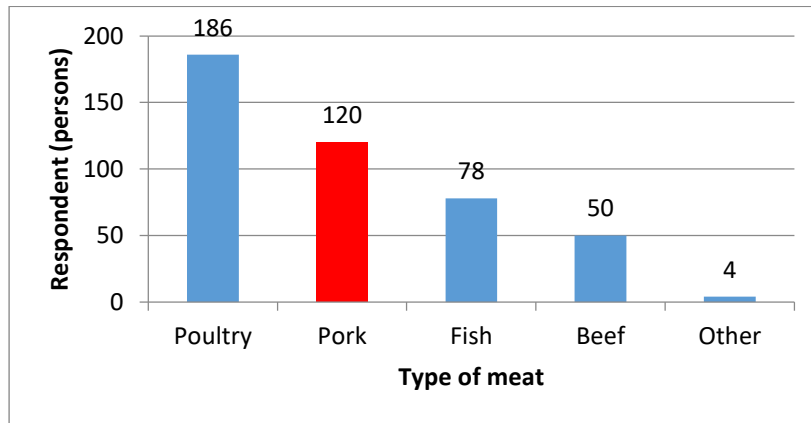
An online questionnaire survey was conducted. There are two groups of questions in this, the first group asked about demographics, while the second group included questions about meat consumption. The questions were applied to both open and closed questions. The percentage distribution of responses was calculated.

## RESULTS

The questionnaires were distributed in 3 counties: Bács-Kiskun, Békés and Csongrád-Csanád counties. 224 evaluable responses have been received so far. Respondents were grouped according to their demographic characteristics as follows:

Respondents all consume meat; this was a condition for completing the questionnaire. Of those surveyed, 26% identified themselves as men and 74% as women. On the one hand, ladies appear to have been more active in completing the questionnaire and, on the other hand, to participate more in the purchase of meat by households. Retirees did not participate in the survey. Most of the respondents were between the ages of 25 and 54 years old (69.6%). The youngest age group (under 25) was represented in the online survey by 20.6%, while those aged 55-64 were represented by 9.8%. The division of the age groups was adjusted to the methodology of the CSO (Central Statistical Office, Hungary). By grouping by educational attainment, 1% had a primary education, 54.4% had a secondary education, and 44.6% had higher education.

Most of the respondents prefer to eat poultry meat (Figure 2) probably because it is healthy, readily available, and last but not least, a relatively inexpensive type of meat. Pork was identified as the most consumed meat by 53.6% of respondents. 34.8% of the respondents consume fish in the first place, while 50 people consume cattle in the first place. Of the respondents, 4 persons entered the wild game, among others. There were those who liked two kinds of meat alike, and so they made two markings.

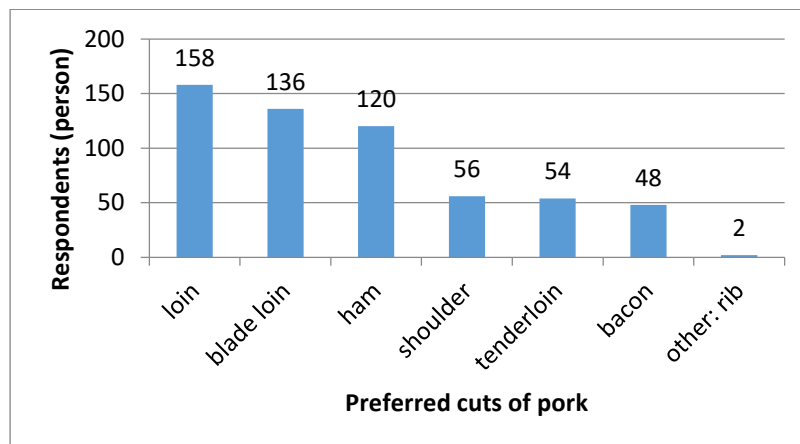


**Figure 2: Meat of each animal according to consumer preference**

Of those surveyed who marked pork as the most consumed type of meat, there were 35% of men and 65% of women. Among the pork lovers, the youngest age group was 20%, the 25-54 age group was 65%, and the 56-64 age group was 15%. The popularity of pork appeared in proportion to the respondents' educational attainment.

More than 52 percent of respondents said they consume pork several times a week, while 33 percent of respondents eat pork once a week. However, the consumption of special types of pork (e.g. mangalica) was not preferred by the respondents. On a monthly basis, 14 percent of those surveyed consume pork only once a month. One of the respondents only rarely eats pork every year.

Consumers were asked which part of the pig they like best. Among the respondents, the first three places were loin, blade loin and ham. These were followed by a shoulder with a similar price range to the first three meat types, bacon and then the more expensive tenderloin. One respondent preferred the rib (Figure 3).



**Figure 3: Popular, enjoyed pork cuts**

In the case of consuming more expensive types of meat (e.g. tenderloin), there is only a quantitative difference between the tastes of men and women. Loin is by far the most popular type of pork among those with a higher education. More expensive types of meat are more likely to be consumed by those with higher education, presumably due to higher income conditions. 48% of the 224 respondents buy about 1 kg of meat occasionally, while 28 percent buy between 1 and 5 kg of pork. 24 percent of those surveyed buy less than a kilogram of pork in a one-time purchase. Respondents most often buy pork in a butcher shop (126 people), and this is especially true for women (90 people), while 36 of the male respondents indicated this option. Supermarkets, markets and

hypermarkets are visited by almost the same proportion of respondents (42-60 respondents). 28 of the respondents buy a backyard product, while traditional convenience store shopping is declining among both men and women. 57% of the respondents do not consume pork offal, but this shows a result of almost 50-50% in the distribution of men and women. 75% of respondents use lard for frying and cooking and consider it healthy. According to the respondents, pork is healthier, with an average score of 3.66 on a 1-5 Likert scale. The biggest impact on customers is the fall in prices. Of the respondents, 134 would buy more pork as a result of the price drop. As a result of advertising, only 2 people would buy more pork. The positive effect of the fall in prices would lead to an increase in the purchase of pork, especially among the low-educated. Pig slaughter is not an unknown concept among survey participants. However, if a rural tourist accommodation were to promote its accommodation with traditional pig slaughter, 85 percent of respondents would not prefer it.

## CONCLUSIONS

The main findings of the survey can be summarized as follows:

- Household pork consumption is most affected by income and education levels.
- It is typical of the customers interviewed that they consume pork several times a week (but at least once a week), which is typically bought in the butcher's shop or supermarket.
  - Among the pork, the consumption of loins, loins and thighs is typical among the respondents, where the consumption of the 25-54 age groups is dominant.
  - The majority of the respondents buy 1 kg of meat in their purchases, but one third of the respondents purchase 1-5 kg of pork from time to time.
  - The by-products of pig processing are enjoyed by respondents in this region.
  - Respondents would be willing to buy larger quantities only as a result of price reductions
  - The perception of the effect of pork on health is particularly good among the respondents.

Among the limitations of the research, it should be mentioned that the sample included in the analysis is not representative, therefore the results cannot be generalized, but they can provide guidelines for future studies. The data at the time of collection in 2022 will likely to show a completely different picture due to rapidly rising meat prices.

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