The structure analysis of the commodity market and the meat raw material supply management

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Abstract. In the modern world, the market of raw meat and meat products is constantly growing and developing. It is quite dynamic and characterised by a constant increase in competition. The structure of the commodity market is evaluated not only by local region producers of the region, but also by producers from other regions, and each of them in general and in particular occupies a certain market segment. The article presents information on the analysis of the structure of the raw meat market, in particular beef. The characteristics of the main supply competitors to the Omsk region and the Siberian zone are presented. Based on a questionnaire survey, the main trends in the selection of raw meat for representatives of the food industry were identified. This analysis is also based on such factors as the purchase and market price, as well as in the framework of public nutrition for finished products made from meat raw materials. Based on the results obtained, a number of conclusions were drawn, and an idea of the market for these products was formed.

Keyworlds: market, raw meat, structure, analysis, indicators

1 Introduction

The analysis of the commodity market in the modern world must be viewed through the prism of one of the most important and constantly used instruments. [1, 2] Consumer demand for meat raw materials, in particular meat products, is an uncritically changing context which is directly depends on the income of the population, including state support, especially for small enterprises and developing livestock complexes, which are becoming more and more common every year. This indicates the demand in the regions and the constant demand for meat raw materials [3].

The meat market, including the Omsk region, has undergone considerable changes over the past few years, in particular:

1) The consumption of poultry meat came out on top – this is primarily due to both the cost of the product and its dietary properties;

2) At the beginning, there was a tendency for small farms and manufactured products to decline in the market, but thanks to support measures for beef cattle breeding, both small farms and large holdings are taking the leading positions.

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According to forecasts for the end of the year, the meat market is becoming more flexible, but due to recent changes in the world, a huge niche is being released for regional producers, which they are able to fill with products of their own production, ranging from raw meat to finished products [4,5].

2 Materials and Methods

The objects of the study were: consumers of meat raw materials, meat raw materials, retail chains, producers of raw materials and meat products, as well as catering enterprises.

For research, the method of collecting primary data was – an oral and written survey, for which statistical instruments were used.

With the purpose of determining the representativeness of the sample, statistical data on the population of the region was used for conducting research:

The survey was conducted among the large catering enterprises of the region in an open form; respondents were given a certain list of questions.

Questionnaire
1. Are there meat raw material dishes in the menu of your institution?
2. Which suppliers do you prefer to cooperate with?
3. What volume of raw meat per month do you buy?
4. What is the purchase price?
5. Are you satisfied with the price and quality of the meat supplied?
6. What price per kilogram of beef meat do you consider acceptable?
7. Is it preferable for you to supply raw meat in a frozen or chilled state?

3 Equations and mathematics

The confidence probability shows that the random answer possibility will get into the confidence interval. As a rule, 95% is used, but in conditions of small budgets and for small samples, it is possible to lower its level to 90%. The sample was calculated using the calculated method and amounted to 87 catering enterprises. During the research, producers of meat raw materials were taken into account (the main emphasis was on raw materials obtained from meat breeds – Herefords, since this breed is the most effective in productivity).

Analyzing the structure of the commodity market, the percentage of meat raw material suppliers and the volume of meat purchased were determined in Figure 1.2
Fig. 1. Share of raw meat suppliers

Fig. 2. Volume of meat purchased
As can be seen from Figure 1, Miratorg occupies the largest segment of the supplier market – 37%, and Altai marble beef - 31%. The main "player" in the market is the Miratorg company and its subsidiaries.

The optimal extent for the purchase of "marble" beef by catering enterprises whose main menu is based on beef dishes is 60-70kg. At the same time, 8% of public catering enterprises are ready to pay 4,200 RUB per 1 kg of premium cuts of beef. A more detailed segmentation by purchase prices is shown in Figure 3.

![Figure 3](image)

**Fig.3.** The purchase price of "marble" meat by public catering enterprises

Catering enterprises and retail chains are ready to purchase "marble" beef of premium cuts from peasant farms in the Omsk region at a price of 450,00 RUB per kg, if there are official documents confirming the quality of these products. 42% of enterprises are satisfied with the purchase price, 27% refer to interruptions in supplies and delivery times, and 31% are satisfied with quality, but would like to purchase "marble" beef at lower prices (Figure 4).
During the research, attention was paid to the seasonal change in the price of raw meat in retail chains on a monthly basis in the period January–November. The price increases in retail trade enterprises are observed in July, then the price remains stable, and the next increase occurs in September. In the study period, the average price for marbled beef ranged from 840 to 920RUB per kg.

38% of catering establishments and RTS are ready to buy chilled meat in vacuum packaging, 27% chilled in packaging, and only 8% prefer frozen meat. (Figure 5).
According to the results of the conducted research, it was determined that catering establishments and retail chains are ready to purchase "marble" beef from representatives of peasant farms in the Omsk region at a price of 450,00 RUB per kg, which is 45% lower than the market price of Miratorg. At the moment, the main "player" in the market is Miratorg.

4 Conclusion

As a result of a number of studies conducted, groups of stable consumers of meat raw materials were actually identified, and the criteria of the commodity market were studied using the example of public catering enterprises. The analysis of purchase prices was carried out, and the volume of public catering enterprises and retail chains in meat raw materials was determined. In general, summarizing all the data obtained, it can be determined that this type of product – beef meat, obtained from a certain breed of bulls, has value in the meat market.

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