Evaluation of the Effectiveness of the Introduction of a New Product in a Small Business

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Abstract. The article is devoted to the assessment of the feasibility and economic efficiency of the introduction of a new product in a small enterprise. According to the estimates of both consumers of goods and their manufacturers, the most important indicators affecting the volume of sales of products are: quality, price, product range. Expansion of the assortment is a significant indicator of the competitiveness of manufacturing enterprises in the market. The introduction of a new product into production requires preliminary marketing research and economic calculations to assess the expected demand for the introduced product, as well as potential revenue. It is necessary to calculate the total cost of the product, estimate the amount of revenue and profit from the introduction of a new product, and its profitability. It has been determined that at present there is a steady increase in consumer interest in semi-finished products made using turkey meat as the main raw material, with the addition of various plant components, in this regard, studies aimed at the development and economic justification of food recipes, including these types of raw materials, are relevant. The purpose of the study was to determine consumer opinion in order to assess the feasibility of introducing a new product into production – “Zrazy from turkey meat with mushrooms”, as well as to assess the economic efficiency of the developed recipe and technology.

1. Introduction

One of the important social problems facing modern food industry enterprises is the saturation of the domestic market with food products, which, in addition to the main function of saturation, also have a functional role – providing the human body with irreplaceable macro- and micronutrients. In the organization of good nutrition, one of the fundamental roles is played by meat products, which provide the body with a whole complex of essential amino acids, which are in an optimal ratio to ensure the life of the body [1].

One of the promising types of meat raw materials is turkey meat – a type of raw material with dietary properties [2], which has a number of attractive features for both the producer and the consumer. Turkey meat is a relatively new type of raw material for a Russian manufacturer, which has a number of advantages [3]. In addition, turkey on the conservative Russian market already has its own product niche [4], in contrast to some exotic types of raw materials, for example, horse meat, which makes it more competitive in terms of use in formulations [5]. In addition, it was found that products with an exotic composition and taste for the region of distribution and will have a smaller audience of consumers than products made from traditional raw materials [6], which in a small enterprise is a certain economic risk.

In terms of consumer value, turkey meat is characterized by an increased content of vitamin C compared to other similar types of raw materials with a reduced content of cholesterol, which is a huge competitive advantage in light of the growth of diseases of the cardiovascular system. In addition, in terms
of taste, turkey meat is in no way inferior to the meat of other types of poultry, it is juicy, tender meat, with a high content of phosphorus (its content in turkey meat is not inferior to this indicator in fish raw materials), vitamin PP, vitamin deficiency of which is often observed in due to the low content of this element in other types of raw materials.

According to experts, turkey meat is a promising type of raw material and its market will only grow. This is a high-tech raw material that allows it to be used both in mono-recipe compositions and to be introduced into complex meat systems, while imitating traditional recipes without losing their organoleptic characteristics. In addition to the organoleptic and technological advantages, turkey meat also has a very important economic attractiveness - this raw material is much cheaper than beef used in a large number of recipes, which makes it attractive as a cheaper alternative. Considering the above, in order to develop a new type of meat semi-finished products – “Zrazy from turkey meat with mushrooms”, it was decided to focus on turkey as the meat component.

The addition of champignons in this case was caused by the desire to diversify the range of products available at Lyubavushka Retail Group LLC (Kingisepp, Leningrad Region), the raw material of which will be mushrooms, traditionally loved and already familiar to many Russians. The introduction of champignons into the recipe will reduce the final total calorie content of the product, saturating it with microelements (PP vitamins, folic acid, choline, etc.), as well as some macronutrients (mushrooms contain potassium, magnesium, phosphorus, calcium and a number of others). In addition, the partial replacement of raw meat with plant components leads to an increase in the content of the salt-soluble fraction of proteins [7].

Turkey meat zrazy with mushrooms is a product stuffed with marinated mushrooms. The finished product will have a number of useful properties. But the question always remains – will a new product be in demand among the consumer and, most importantly, will the release of this product bring the expected economic profit for the manufacturer? Will the buyer have a desire to purchase a new useful product instead of higher-calorie counterparts? [8] Unfortunately, no expected benefit to the population will be able to compel manufacturing enterprises to launch a product on the market that does not generate income. Enterprises are limited by the rational use of production factors, in which the consumed resources are minimized and the benefits are maximized. [9] Therefore, it is necessary to conduct a series of studies before starting mass production to identify consumer interest and estimate the expected profit.

The research was carried out on the basis of the Department of Technology of Production and Processing of Agricultural Products, in this regard, the survey of consumer interest was carried out in the conditions of Veliky Novgorod, which is quite correct, taking into account the territorial proximity of the regions. In this case, the Institute is one of the links in the chain of introducing innovative food products to the Russian market, which makes it possible to provide a mechanism for the emergence of such products on the market and their implementation in production [10].

2. Objects and methods of research
The object of the study was to evaluate the effectiveness of the introduction of a new product – turkey meat zrazy with mushrooms.

In the course of the research, methods such as analysis, synthesis, deduction, and economic analysis were used. The research methodology includes mathematical processing of the results using the methods of statistical analysis. Statistical processing of the results was carried out using the program Microsoft Excel 2016.

3. Results and discussion
Research to determine consumer demand was carried out at the laboratories of the Institute of Agriculture and Natural Resources of the Yaroslav-the-Wise Novgorod State University, Veliky Novgorod. The purpose of this stage of the study was to determine the assessment of a new product by a potential consumer, as well as to assess the prospects for introducing this product into the range of the enterprise.

Organoleptic evaluation of product samples was carried out in accordance with GOST 4288-76 using focus group methods. 38 people took part in the consumer expertise. The age of the respondents was from
18 to 57 years old, the main share (52.6%) – young people (students) 18–22 years old. The focus group method was adopted as the most preferable, since it allows one to assess the group's point of view regarding the qualitative characteristics of a new product, the desire to purchase such a product in a retail network, and identify the advantages and disadvantages already at the first stages of development – before the product is introduced into production.

During the sensory analysis, the interviewed experts were provided with samples of the product prepared in two ways – fried and steamed, after which the groups were asked a number of questions regarding the taste characteristics of the product, its structural characteristics, caused by sensations. Based on the data obtained, a diagram was drawn up showing the results of the organoleptic analysis (table 1).

| The name of indicators | Group 1 (age 18–30 years) | Group 2 (age 31–45 years) | Group 3 (age 46–57 years) |
|------------------------|---------------------------|---------------------------|---------------------------|
| Appearance (form)      | rounded, without a broken edge | rounded, without a broken edge | rounded, without a broken edge |
| Consistency:           |                           |                           |                           |
| fried                  | juicy, soft               | juicy, soft               | juicy, less soft          |
| steam                  | juicy, soft               | juicy, soft               | juicy, soft               |
| Smell and taste:       |                           |                           |                           |
| fried                  | pleasant taste and smell of raw meat | pleasant taste and smell of raw meat | pleasant taste and smell of raw meat |
| steam                  | pleasant taste and smell of raw meat | pleasant taste and smell of raw meat | pleasant taste and smell of raw meat |

Analyzing the data in table 1, it can be seen that all focus group participants rated the organoleptic indicators of the proposed product quite high, in all groups there is an approximately identical picture, no significant sample defects were found. However, when evaluating the consistency, the experts of the third group noted that when steaming the product, the zrazy turned out to be softer compared to the fried sample, which is due to the cooking method. According to the data obtained, the product did not cause any unpleasant taste sensations among the experts, regardless of age.

Further, the desire of potential consumers to purchase this product was assessed (figure 1). When answering the question: do you want to buy this product in retail outlets, the answers were assessed using a point scale, when the surveyed groups had to answer this question on a 5-point scale (where “0 points” is absolutely not, “5 points” – definitely yes.

![Figure 1. The answer to the question: do you want to buy this product in?](image-url)
The results of the analysis of consumer preferences showed that the developed product completely satisfies potential consumers of the new product, the average indicator reflecting the desire to purchase such a product was 4.7±0.2 points, and from this point of view, the feasibility of its production was confirmed. In the course of further research, the economic efficiency of the production of a new type of product was assessed.

As a result of the calculations, it was determined that with a production volume of 320 kg per month, the profit of the enterprise received from the sale of zraz will amount to 96,740 00 rubles. The planned profitability of the production of the product is 10%, which is a sufficient indicator for the food industry. The selling price of 1 kg per day from the enterprise will be 327.00 rubles, which is 7% lower than the average prices for similar products in the region. Thus, the calculations of the economic efficiency have confirmed the hypothesis put forward at the beginning of the study about the feasibility of introducing a new product into the assortment of the enterprise Lyubavushka Retail Group LLC.

4. Conclusion
As a result of the study, it was found that the introduction of a new product – zraz from turkey meat with mushrooms is economically feasible. To confirm this hypothesis, a survey of consumer preferences was conducted, as a result of which the interest of the end consumer in such a product was revealed. An assessment of the economic component showed that the profit of the enterprise upon the introduction of this product will be about 97,000 rubles, which justifies the planned production.

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