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ON THE ADVANTAGE OF USING PRODUCTION IN THE MANUFACTURE OF DEMANDED AND COMPETITIVE PRODUCTS, MESSAGE 2

Abstract: *The article explores the possibility of forming innovative technological processes on the basis of universal and multifunctional dual-purpose equipment, namely: the production of men's shoes and the entire assortment of footwear for children. For the first time, the authors managed to solve this problem on the basis of a single design basis, using a generalized feature - the height of the heel elevation. This solution guarantees the manufacturer stable technical and economic indicators of its activities, and consumers - to meet the demand for demanded footwear.*

Key words: *constructive basis, versatility, multifunctionality, demand, demand, price niche, markets with unstable sales.*

Language: *English*

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Introduction

UDC 685.14: 519. 78.

To select the optimal capacity, the authors have developed software that allows manufacturers, based on an innovative technological process using universal and multifunctional equipment, to produce the entire assortment of shoes with minimum, average and maximum costs, which creates the basis for varying the price niche, including through a gradual increase in the share of domestic components in the production of leather goods with a significant reduction in the cost of its manufacture. At the same time, as criteria for a reasonable choice of the optimal power when forming the algorithm, it was justified to choose exactly those criteria that have the greatest impact on the cost of the finished product, namely:

– load factor of workers,%;
– labor productivity of one worker, a couple;
– losses on wages per unit of production, rubles;

– specific reduced costs per 100 pairs of shoes, rub.

Of the four given criteria, in our opinion, the main ones are labor productivity of 1 worker and unit reduced costs.

Labor productivity of 1 worker is the most important labor indicator. All the main indicators of production efficiency and all labor indicators, to one degree or another, depend on the level and dynamics of labor productivity: production, the number of employees, wage expenditure, the level of wages, etc.

To increase labor productivity, the introduction of new equipment and technology, widespread mechanization of labor-intensive work, automation of production processes, advanced training of workers and employees, especially when introducing innovative technological processes based on universal and multifunctional equipment, are of paramount importance.

Main part

Specific reduced costs - an indicator of the comparative economic efficiency of capital investments, used when choosing the best option for solving technological problems.

The given costs are the sum of current costs, taken into account in the cost of production, and one-time capital investments, the comparability of which with current costs is achieved by multiplying them by the standard coefficient of efficiency of capital investments. Tables 1 and 2 show the calculations of the optimal power for the range from 300 to 900 pairs for men's and women's shoes for the entire range of footwear. Analysis of the obtained characteristics for three variants of a given technological process in the manufacture of the entire assortment of footwear confirmed the effectiveness of the software product for evaluating the proposed innovative technological process using universal and multifunctional equipment. So, with a range of 300 - 900 pairs, the best according to the given criteria is the volume of production of 889 pairs (for men) and 847 pairs (for women). If the production areas proposed by the regional and municipal authorities of the two districts - the Southern Federal District and the North Caucasus Federal District, according to the standard indicators, do not allow the calculated production volumes to be realized, then the option of the optimal capacity is chosen that is acceptable, for example, the production volume of 556 pairs, which corresponds to the standard indicators for the proposed production areas and is characterized by the best values of the designated criteria, which form the cost of the entire range of footwear. The authors have developed consolidated technological processes for assembling a shoe upper and assembling shoes for 12 models of men's and 12 models of women's shoes, respectively. The generalized volumes of the main costs are shown in table 1.

Table 1. - Calculation of the optimal power with a range of 300-900 pairs using the example of men's shoes

Power	Equipment type	Optimal power, steam per shift	Manufacturing labor efficiency of 1 worker, pairs	Workers load factor,%	Losses on wages per unit of production, rub	Specific reduced costs per 100 pairs of shoes, rub
300-500	1	500	28.09	61.39	13.68	6735.36
500-700	1	556	27.73	69.14	9.83	6404.71
700-900	1	889	28.09	77.20	6.42	5236.17
300-500	2	500	28.09	61.39	13.68	6728.68
500-700	2	556	27.91	68.70	9.97	6083.28
700-900	2	889	28.09	77.20	6.42	5240.72
300-500	3	500	28.09	61.39	13.68	7533.95
500-700	3	700	28.12	67.28	10.56	6734.02
700-900	3	889	28.09	77.20	6.42	5876.59

To assess the effectiveness of the production activity of a shoe company, it is necessary to analyze the annual results of the enterprise for the production of men's and women's shoe assortment.

Table 2. - Calculation of the optimal power with a range of 300-900 pairs using the example of women's shoes

Power options	Type of equipment	Optimal power, steam per shift	Performance labor of 1 worker, couples	Workers load factor,%	Losses on wages per unit of production, rub	Specific reduced costs per 100 pairs of shoes, rub
300-500	1	500	27.73	62.18	13.40	6980.5
500-700	1	700	27.73	69.14	9.83	6277.43
700-900	1	847	27.73	74.50	7.54	5673.49
300-500	2	500	24.45	63.90	14.11	7630.92
500-700	2	556	27.73	69.14	9.83	6404.71
700-900	2	812	25.64	75.40	7.77	6060.55
300-500	3	500	27.00	61.74	14.02	7827.12
500-700	3	556	29.32	68.21	9.71	6607.65
700-900	3	847	27.00	74.70	7.66	6341.05

These calculations indicate that with 100% of sales of men's and women's shoes in the specified period of time, not only the costs of production and sales of products are covered, but also a profit of 3,697.4 thousand rubles remains. This testifies to the efficient operation of the enterprise, as well as to the correct marketing and assortment policy. The product profitability is 14.9%.

Shoe enterprises should focus both on external (consumer enterprises, competition, market conditions, etc.) and on internal factors, such as sales volume, profitability, coverage of basic costs, etc. However, it is impossible to take into account and foresee all situations that may arise when selling shoes, i.e. some shoe models are no longer in demand at a certain stage.

Thus, the regions where innovation centers, including shoe centers, are organized, become leaders in economic development, determine the competitiveness of the economy of these regions, and provide social protection to the population of these regions.

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