Impact Factor:					
	ISRA (India) = 6.317	SIS (USA) = 0.912	ICV (Poland) = 6.630
	ISI (Dubai, UAE) = 1.582	РИНЦ (Russia) = 3.939	PIF (India) = 1.940
	GIF (Australia) = 0.564	ESJI (KZ) = 8.771	IBI (India) = 4.260
	JIF = 1.500	SJIF (Morocco) = 7.184	OAJI (USA) = 0.350

SOI: 1.1/TAS DOI: 10.15863/TAS

International Scientific Journal

Theoretical & Applied Science

p-ISSN: 2308-4944 (print) **e-ISSN:** 2409-0085 (online)

Year: 2022 **Issue:** 12 **Volume:** 116

Published: 12.12.2022 **http://T-Science.org**

Issue Article

Artur Alexandrovich Blagorodov
Institute of Service and Entrepreneurship(branch) DSTU
master

Victoria Sergeevna Belysheva
Institute of Service and Entrepreneurship(branch) DSTU
Associate Professor, c.t.s

Vladimir Timofeevich Prokhorov
Institute of Service and Entrepreneurship(branch) DSTU
Doctor of Technical Sciences, Professor
Shakhty, Russia

Galina Yurievna Volkova
LLC TsPOSN «Orthomoda»
Doctor of Economics, Professor
Moscow, Russia

FEATURES OF MANUFACTURING PRIORITY AND DEMANDED FOOTWEAR WITHIN THE FORMED TERRITORY OF ADVANCED DEVELOPMENT

Abstract: *In the article, the authors consider the role of quality as a tool for promoting the philosophy of quality in the production of competitive and in-demand products at light industry enterprises located in the regions of the Southern Federal District and the North Caucasus Federal District. At the same time, the authors absolutely reasonably confirm the possibility of such an implementation. If innovative centers are implemented, saturated with universal and multifunctional equipment, creating the prerequisites for the production of the entire range of footwear, namely: men's, women's and, most importantly, children's shoes, the demand for which is quite high in the regions of the Southern Federal District and the North Caucasus Federal District.*

Key words: *quality, preferences, demand, competitiveness, market, profit, demand, buyer, manufacturer, financial stability, sustainable TEP, priority, assortment policy, implementation, paradigm, economic policy.*

Language: *English*

Citation: Blagorodov, A. A., Belysheva, V. S., Prokhorov, V. T., & Volkova, G. Y. (2022). Features of manufacturing priority and demanded footwear within the formed territory of advanced development. *ISJ Theoretical & Applied Science, 12 (116),* 354-390.

Soi: http://s-o-i.org/1.1/TAS-12-116-31 ***Doi***: https://dx.doi.org/10.15863/TAS.2022.12.116.31

Scopus ASCC: *2000.*

Introduction

UDC 685.74:519.34

When developing a range of children's shoes, it is necessary to take into account the factors that form consumer demand: compliance with the main fashion trends, economic, social and climatic specifics of the Southern and North Caucasian federal districts.

In terms of their natural and climatic conditions, the Southern Federal District and the North Caucasus Federal District occupy a unique position in the Russian Federation. Geographical position, proximity to three seas and varied relief with high mountains predetermine a significant diversity of climate. In the eastern part, the continentality of the temperate climate is clearly manifested: winters are cooler here,

summers are hotter (the average temperature in July ranges from +25 to +280C, in January - 4–80C), the amount of precipitation is not high; the climate of humid subtropics with a large amount of precipitation prevails on the Black Sea coast, the average temperature in January is +2–50C.

Such mild natural and climatic conditions of our region suggest a great demand for shoes for the spring-autumn and summer period of wear (sandals, shoes, low shoes, autumn boots and boots). Winter shoes are less in demand. In accordance with MGOST 26165–84 “Children's shoes. Specifications”, the use of textile and artificial materials, along with natural ones and in combination with them, is the most relevant for such shoes, it allows you to most fully satisfy consumer demand for families with different income levels.

The range of children's shoes should focus on customers with different income levels, for this, in the production of shoes, you can use leather of different quality: expensive, such as chevro or cheaper - pigskin, shoes from which you can wear on the "exit", and, having come home, take it off so that the child's legs can rest.

Also, when developing an assortment, one should also take into account the fact that more girls are born in the Southern Federal District than boys, so shoes for girls should be produced in a larger volume than shoes for boys.

If manufacturers of footwear for children are guided by all of the above, then buyers will have the opportunity, depending on their financial situation, to give preference to products of one or another price category, made taking into account the climatic characteristics of the Southern Federal District and the generic characteristics of its population.

One of the most important requirements of Russians to the shoes they buy in general and children's shoes in particular is their compliance with the latest fashion trends. Moreover, recently it has begun to spread not only to models for schoolchildren, but also to children of school and toddler age. And this applies to both products of famous foreign brands and domestic manufacturers. Of course, there are different price niches in all shoe markets in the world, but also a feature of our Russian one: a huge sector of cheap shoes, relatively small - of average cost and very small - expensive. The second, no less important feature: a big plug between cheap shoes (up to 9 euros per pair) and expensive ones (from 200 euros per pair).

In the first sector, not only firms from Southeast Asia work, but also Russian wholesalers placing their orders in China. In the second, middle one, there are Russian factories, as well as enterprises in Eastern Europe and Turkey that produce shoes under their own or licensed brands. In the third - well-known world manufacturers and even fashion houses.

At the junction are European-made collections made from natural materials, adapted to the Russian market, but also of moderate cost.

Representatives of the most extensive cheap sector, where the level of competition is very high, are striving in every possible way to reduce the cost of their products due to production in cheaper factories, as well as the materials used.

It should be noted that now the requirements of parents for the hygienic properties of children's shoes have risen sharply, namely, for the naturalness of the upper material, because many manufacturers from the inexpensive market segment, in an effort to reduce the price, make only insole and lining from genuine leather. To keep a child's foot healthy, toddler shoes need to be well thought out, down to the details.

When you consider that the growth of the foot, on average, is completed around the age of 18, you can imagine how important it is to have suitable and healthy shoes from the very beginning. In the process of leg growth, a transformation occurs: since at first the child begins to crawl, he still has crooked legs in the shape of the letter O. With the disappearance of these crooked legs, which is due to growth, crooked legs appear in the form of the letter X, when the sides of the knees are on the inside are in contact with each other. Until about 6 years of age, the foot of a small child grows, maintaining the shape of X. When learning to walk, the child seeks to align the body vertically, and the feet are subjected to great stress. The feet and legs begin to develop as they begin to have a functional load on the muscles, ligaments and tendons, begin to adapt to each other. During the period when the child begins to stand up spontaneously, the foot must necessarily be able to develop freely. This also applies to further stages of development and in older children. Shoes, from a hygienic point of view, should protect the body from cooling and overheating, protect the foot from mechanical damage, help the muscles and ligaments to keep the arch of the foot in a normal position, provide a favorable microclimate around the foot, help maintain the necessary temperature and humidity conditions under any microclimatic conditions. external environment. Footwear must meet hygienic requirements: be light, comfortable, not restrict movement, fit the shape and size of the foot. Then the toes are located freely and they can be moved.

Tight and short shoes make it difficult to walk, pinch the leg, impair blood circulation, cause pain and over time change the shape of the foot, disrupt its normal growth, deform fingers, contribute to the formation of ulcers that are difficult to heal, and in the cold season - frostbite, increases sweating. Too loose shoes are also harmful. Walking in it quickly tires, and scuffs can occur, especially in the instep area.

The area of support and stability are sharply reduced. The trunk leans back. Such a deviation in the age, when the pelvic bones have not yet grown

together, causes a change in its shape, changes the position of the pelvis, which in the future may adversely affect the generic function. This creates a large lumbar curve. The foot rolls forward, the toes are compressed in a narrow toe, the load on the forefoot increases, resulting in flattening of the arch of the foot and deformity of the toes. In shoes with high heels, it is easier to twist the leg at the ankle joint, it is easy to lose balance.

The sole should bend well. A hard sole makes it difficult to walk (the bending angle is limited, the heel of the shoe is pulled off the heel), reduces the performance of the muscles of the ankle joint, increases the temperature of the skin of the leg and sweating.

As much as it is necessary to ensure maximum mobility of the forefoot, it is also necessary to ensure maximum heel stability. The back must be strong, not allowing the foot to slip. The back should protect, tightly cover the heel, prevent its deformation.

In winter, shoes must be warm. For this purpose, fur, felt, cloth, felt are used. On cold winter days, not below -10ºC, schoolchildren can wear boots and boots made of porous rubber, insulated with synthetic fur (dacron with cotton) or lined with wool or felt. With chronic cooling of the legs, vasospasms occur and serious malnutrition of leg tissues develops due to obstruction of blood flow. In the summer months, the most hygienic light open shoes with a wide neckline are sandals, sandals, leather shoes or shoes with leather soles with uppers made of textiles and other materials with a porous structure (gunny, denim, etc.). Such shoes contribute to good ventilation and rapid evaporation of sweat due to air circulation around the foot (due to the selection of material, but more often the openwork pattern of the shoe upper).

In wet rainy weather, rubber boots or shoes with soles made of waterproof materials, rubber, rubber, nylon, etc. are comfortable. However, these shoes are characterized by low breathability, so you need to wear them only with insoles that absorb sweat well: felt, cloth, and in summer - from woven straw or cardboard. Care must be taken to ensure that the lining does not become wet.

Shoes that meet hygienic requirements help to avoid unpleasant, sometimes painful phenomena. Thus, shoes should not compress the foot, disrupt blood and lymph circulation, or interfere with the natural development of the foot. There should be a space of 0.5–1 cm.

Hygienic requirements for shoes for children and adolescents are made up of requirements for the design of shoes, due to the structural features of the foot during the growth period, and for the materials from which the shoes are made. The size, style and stiffness of the bottom of children's shoes should not interfere with the development of the foot.

The foot of a child at an early age differs significantly from the foot of an adult in anatomical and physiological structure. The children's foot is characterized by a radial shape, in which the greatest width is noted at the ends of the fingers. The foot becomes fan-shaped. A different ratio of the heel and forefoot: children have a relatively longer back (heel), which should be taken into account when designing shoes. The skeleton of the foot in childhood is formed by cartilage. Ossification is completed only with the end of growth (approximately21 g.), so the child's foot can be easily deformed under the influence of mechanical stress. In this regard, such qualities as thickness, flexibility of the sole, mass of shoes, as well as heat-shielding properties are subject to hygienic rationing.

The main elements of the cut of shoes are the top - this is the toe, heel, vamp, tibia and bootleg, and the bottom - this is the sole, insole, heel. The toe part should be wider than the beam part (part of the foot at the level of the metatarsophalangeal joints). Sock - the outer part of the top of the shoe, covering the surface of the toes to the level of the metatarsophalangeal joints. The toe cap is a part of the upper, located between the lining and the top in the fore part to maintain its shape. It protects the toes from injury, and its length should not exceed the area of the metatarsophalangeal joints. The heel is a part of the upper part of the shoe, located in the heel part to maintain its shape. The back should protect the heel, prevent its deformation, prevent the foot from sliding up and back. For the manufacture of the heel, thicker genuine leather is used. The production of shoes without a back is allowed for children over 11 years old. The vamp is a leather patch on the toe and instep of the boot, as well as the front part of the shoe blank. Shaft - the part of the boot that surrounds the shin.

The height of shoes is normalized depending on its type and type. The bottom of the shoe (insole, sole, heel) should have optimal stiffness indicators: resistance (expressed in N / cm) to bending along the line of the connecting head and metatarsal bones up to an angle of 25 degrees. “Shoe flexibility is regulated and should be 7 N/cm for goose shoes, 10 N/cm for preschool shoes, 9–13 N/cm for boys’ school shoes, and 8–10 N/cm for girls’ school shoes.”

The sole is the main element of the bottom of the shoe. The sole must have optimal flexibility, thickness, mass and thermal insulation properties. The heat-shielding properties of sole materials depend on their thermal conductivity. The lower the thermal conductivity, the higher their heat-shielding properties. Porous rubber in terms of heat-shielding properties significantly exceeds leather and solid rubber. At the same time, with an increase in environmental humidity, the heat loss of natural leather from wool (felt boots) increases, and the heat-shielding properties of porous rubber do not change. This creates the advantage of using porous rubbers for soles in children's shoes, which can provide not only thermal insulation properties, but also the thickness,

flexibility and anti-slip properties of shoes. In the summer, wearing shoes with rubber soles, including microporous ones, leads to increased sweating of the legs due to the complete absence of steam and breathability. For children's shoes, thread and combined fastening methods are allowed, providing greater flexibility in the beam region, ease of use of porous rubber, polyurethane and other materials, it is possible to use adhesive and injection methods of fastening that ensure the waterproofness of shoes, which is necessary in the autumn-spring and winter periods. The thickness of the sole is normalized depending on the materials and type of shoes. what is needed in the autumn-spring and winter periods. The thickness of the sole is normalized depending on the materials and type of shoes. what is needed in the autumn-spring and winter periods. The thickness of the sole is normalized depending on the materials and type of shoes.

The insole is an internal part of the shoe that has contact with the skin of the foot and contributes to the creation of a comfortable temperature and humidity regime inside the shoe space. It must have high air and vapor permeability. It should be made only from genuine leather.

The heel artificially raises the arch of the foot, increasing its springiness, protects the heel from bruises on the ground, and also increases the wear resistance of the shoe. When resting on a bare foot (without a heel), most of the load falls on the back of the foot. The absence of a heel is allowed only in shoes for young children (booties) until the child walks. In shoes with heels2 cmThe load is distributed evenly between the front and back of the foot. In shoes with high heels, that is, above4 cm, most of the load falls on the forefoot (with a heel height of 8–10 cmthe load on the forefoot is 7 times greater than on the hindfoot). Heel height: for preschoolers - 5 -10 mm, for schoolchildren 8–10 years old - no more20 mm, for boys 13–17 years old -30 mm, for girls 13–17 years old up to –40 mm.

Children's shoes should have a reliable and comfortable fastening on the foot, not hindering movement. For this, various types of fastening are used: lacing, Velcro, belts, zipper, etc. Open shoes without fasteners (such as boats) are not allowed for school shoes. The mass of shoes depends on the materials used, the design and type of fastening. The norm of the mass of shoes is normalized.

Genuine leather is recommended for the top of children's shoes for all seasons. it has high air and vapor permeability, softness, flexibility and heat-shielding properties. for summer shoes, along with leather, various textile materials or their combinations with leather are used: gunny, denim, etc. In insulated shoes for the top, cloth, drape, woolen and half-woolen materials, felt, felt, etc. are recommended. Genuine leather and cotton materials. For the manufacture of children's shoes, polymeric materials or natural materials with the attachment of chemical fibers, which are regulated by sanitary norms and rules, can be used. Shoes for everyday wear on the street or at school should be simple, comfortable, with wide, low heels (1–2 cm). Then walking will not be tiring. Older girls' weekend shoes can be on an average, but always stable heel, no more than 3 cm high.

There are also specific requirements for the color of children's shoes, and they differ depending on the age of the child (models for babies are always brighter, more cheerful, and for older children - darker, more practical). Our parents are not too fond of easily soiled light shades (they can only be in girlish summer shoes and sandals), as well as non-standard tones that are suitable for clothes of a strictly certain color. Yellow is especially disliked, although according to all forecasts it will be relevant this season.

Boys' preferred colors include black, gray, navy blue and brown, as well as beige and sand and swamp green. Dislike the traditional boyish blue and bright green. In older boys, another, more radical color scheme is already popular, including red and orange, the latter being increasingly used not only as bright finishing touches, but also as the main two. School-age children can be divided into two subgroups: children of primary school age and adolescents.

To revive the production of children's shoes in the Southern Federal District, first of all, it is necessary to create a number of footwear industry enterprises in the following regions of the district with a pronounced socio-demographic situation and employment in the republics: Chechen, Dagestan, Ingush, Kalmyk.

Newly created enterprises need state support, because their own funds are not enough, and borrowed funds are not available due to the high cost. It is necessary to solve at enterprises the general tasks of technological renewal of the industry, replenishment of working capital, increase in the efficiency of scientific and technical support, production for the manufacture of high-quality and affordable children's shoes.

Main part

It is necessary to intensify the work of regional and municipal bodies of social protection in organizing targeted assistance to children and their parents, including large and single-parent families.

We believe that this is a problem not only of private business, but also of the state, because the downward trend in oil prices is becoming persistent, which worsens the economy and, if measures are not taken in the industry, may lead to a decrease in real annual GDP growth rates (due to a decrease in profitability). This will lead to serious negative consequences in the economy. The positive development of the economy could have been without

a shock if the state had provided “starting” assistance in the revival of light industry, because. today light industry remains in crisis, which explains unemployment and low quality of life, especially in small towns, where1992. the city-forming sewing, shoe, and other enterprises necessarily functioned.

It is worth noting that today only a fifth of the output of light industry is produced by small enterprises. Reasonable expectations are paradoxical here: according to the proposals of the Chamber of Commerce and Industry of the Russian Federation and the Russian Union of Industrial Enterprises, obviously, in 2023, the permissive scale of restrictions on the volume of production of small enterprises (!), After the introduction of which the volume of production of shoes by small enterprises will increase at least than up to 60-70% of the total production. And once again in the development of the above.

Why is this growth not systematic? After all, there is the main thing: an immense market (the tax base for imports of goods and light industry products increased by $ 746 million; loyal consumer; capacity; qualified personnel; competitive advantages (easing tariffs for electricity / energy, water, land, etc. Based on the achieved volumes of production and its dynamics, it is realistic to predict the successful completion of the industry in 2025, but everything is in the hands (minds) of the business community, since one cannot count on preferential terms from the state.

I would like to believe that the instruction of the Prime Minister of the Russian Federation will be fulfilled, at least in terms of reducing the volume of shadow (counterfeit, falsified and contraband) products on the market, and domestic footwear will find its consumer.

Development of a range of children's shoes

The acute situation in the production of children's shoes at most Russian shoe enterprises, including the Southern Federal District and the North Caucasus Federal District, is associated with the abolition of subsidies from the federal budget, with the imperfection of the taxation of the children's assortment and insufficient production of lasts for its production. In the consumer market of the Southern Federal District and the North Caucasus Federal District of goods for children, domestic manufacturers were forced out by foreign manufacturers who supply cheaper shoes from low-quality materials. However, this product, for the most part, does not have certificates of conformity and hygiene certificates.

Providing children with properly selected, physiologically sound footwear is one of the main tasks for domestic manufacturers. Domestic children's shoes are produced in accordance with strict standards. This is ensured and put into effect in2003. interstate standard GOST 26165–2003 “Children's shoes. General technical conditions”, which defines the general requirements for shoe manufacturers both in Russia and in the CIS countries.

Children's shoes according to gender and age are divided into groups:

1) for toddlers;
2) little children;
3) preschool;
4) for schoolchildren-girls;
5) girlish;
6) for schoolboys-boys;
7) boyish.

Age group (0-4 years old)

In toddlers, motor-tactile forms of cognition of the world around us come to the fore. Shoes for this age, first of all, should be easy to put on and fasten on the foot. Accessories will attract the attention of the child only with their functionality. Attractive for the attention of the baby are the contrasts in the lines of articulation and color.

Age group (5-9 years old)

In children of preschool and early age, perception becomes meaningful, purposeful, analyzing.

The perception of the child specially organized by the designer will contribute to a better understanding of the phenomena of the surrounding world.

Therefore, the maximum manifestation of the principles of harmony should be present in the created shoes for children.

Age group (10-14 years old)

The third age group of children - school-age children - can be divided into two subgroups: children of primary school age and adolescents.

It is advisable to use a stylized image of a shoe model for children of primary school age in order to contribute to the development of the child's thought process: to stylize the image of cars, plants, insects. Decorative trim becomes the compositional center, so various buckles, brooches and other accessories significantly “refresh” the model and give it originality. A buckle of a simple geometric shape (square or circle), but with a small intricate pattern, will make the child look at it, and therefore concentrate their attention. Designers can use accessories that are complex in geometric shape, and through the use of different colors, help the child isolate simpler geometric bodies from the overall complex shape. Such developments in various versions will help train children's thinking to determine a complex shape.

A teenager is an observer contemplating the world from the outside, studying it as a complex phenomenon, perceiving not so much the diversity and presence of things as the relationship between them. He already clearly knows what shoes are needed and for what purposes, and from the presented models for a certain purpose he chooses, in his opinion, the best, thinking, at the same time, how it will look in the eyes of his comrades. In adolescence, the emotional background is uneven, unstable. The child rushes to

adulthood, claiming equal rights with elders, he considers himself a unique personality, but at the same time, he does not want to differ from his peers in any way. The new position is manifested most often in appearance, including shoes: a teenager likes adult models, but in brighter and bolder manifestations. Therefore, youth fashion is so specific.

Shoes for this group should be, on the one hand, beautiful, meet fashion trends, and on the other hand, comfortable, convenient, taking into account the fact that they have not yet completed the formation of the foot and shoes should exclude the development of pathologies. It must necessarily have distinctive features, that is, it must be shoes that today, today, their peers wear. Shoes may vary in color, style of the sole, there may be differences in design features both when assembling the upper of the shoe and its fastening on the leg, that is, the shoe may have an individual distinctive feature. Teenagers are not recommended to walk in tight shoes. Wearing it often leads to curvature of the fingers, ingrown nails, the formation of calluses and contributes to the development of flat feet. Flat feet are also observed when walking for a long time in shoes without any heels.

Adolescents aged 15-17

A separate group is a group of teenagers aged 15–17 years, shoes for which are created as a separate group, in which designers must take into account the peculiarities of youth fashion, somewhat repeating adult models, but without high heels and a very narrow toe, so as not to damage almost formed foot. Children of very early age become consumers of footwear of men's and women's groups. Thus, boys acquire men's shoes from the age of 11 (9%), by the age of 13, 40 to 60% use men's shoes, and from 15 years and older - almost 100% of adolescents. Even more difficult is the situation with shoes for girls. Women's shoes are purchased by 40 to 70% of 10-year-old girls and almost all girls aged 13 and older. Shoes for this age group should not only be in line with fashion, but be produced in a wide range, so that a teenager with her help can emphasize his individuality. Shoes can vary both in color and in the shape of the sole, various design features of the upper of the shoe and ways of attaching it to the foot can be used.

The consumer always faces a choice, which is a priority for him - the level of comfort of shoes, hygiene, durability, resistance to external influences or price. Currently, artificial membrane materials have been developed that successfully compete with natural ones. The main advantage of these materials is their versatility. They provide the same moisture protection as natural leather.

Children's shoes should have a reliable, comfortable fastening on the foot, which does not interfere with movement. For these purposes, modern fashion uses different types of fasteners: belts, zippers, rubberized inserts that fasten quickly and look modern. However, doctors recommend using laces for school shoes. With their help, you can adjust the height of the lift, which means to provide more comfortable conditions for the foot.

Teenagers have their own requirements for choosing shoes. They prefer what is fashionable in adults. Therefore, shoes are in demand, both classic, and sports, and extravagant - for "advanced" teenagers.

Teenagers prefer sports-style low shoes. Modern models of sports shoes have a specially designed ventilation system: sometimes a mesh or valves built into the sole are used, sometimes the arch support of the model has holes that allow the foot to "breathe", so more and more often sports shoes are offered as school and teenage shoes.

At present, an important trend in children's shoe fashion remains - the desire for maximum comfort. Everything is involved: constructive solutions, modern materials, the latest technologies. The high platform-like soles went out of fashion (which is very harmful for the fragile children's foot), the toe pieces became rounded, acquiring a comfortable shape. Teenage model shoes have small but pronounced heels. Exquisite fittings, elegant materials, leather with textured embossing, metal coating, etc. The tops of winter boots for girls, just like those of their mothers, are decorated with fluffy fur edges, mink fur appliqués, buckles and chains with rhinestones.

In order to form an idea about the assortment of the footwear market in the Rostov region, we analyzed the assortment of children's shoes in the distribution network of the city of Shakhty, which is shown in table 1.

Table 1. The structure of the assortment of children's shoes by price

Shoe manufacturing companies	Types of shoes	Price categories, rub.							
		up to 100	100–300	300–600	600–900	900–1200	1200–1500	1500–1800	1800–2000
"Antelope", Moscow city	sandal strap			X					
	Boots					X	X		
	Sport shoes				X				
"Kotofey",	shoes orthopedic				X				

Egoryevsk, Moscow region	Boots			X	X	X			
	Boots							X	
	low shoes				X	X			
"Thomas", Moscow region	Shoes Little children			X					
	Boots Little children			X					
Bombini, Moscow	Shoes for teenagers			X					
	Boots teenage						X		
	Low shoes for teenagers					X			
"Bagheera", Voronezh	Shoes						X		
	Boots							X	
	Boots								X
RIL, Rostov-on-Don	Sandal strap		X						
	Czechs	X							

Based on the analysis of the range of children's shoes entering the distribution network, it can be concluded that, in general, the demand for shoes is met by manufacturers from other regions.

Features of the development of an assortment of women's shoes

Women's shoes are produced in accordance with the interstate standard GOST 19116–2005 “Model footwear. Specifications".

When compiling a new assortment, the management of the enterprise should remember that the product combines tangible and intangible parameters to meet consumer demand. A new product refers to a modification of an existing product or innovation that the consumer considers significant. In order for a new product to succeed, it must have the parameters desired by consumers, be unique.

Such parameters for model shoes are the following features:

beautiful appearance (namely: korma (silhouette), material, color, decorations, design (execution), interior decoration), grace, elegance, compliance with the fashion trend;

plasticity, lightness, flexibility;

the convenience of shoes to wear, which is determined by the conformity of the shape and size of the shoe to the shape and size of the foot;

the ability of manufactured footwear to maintain its external and internal shape and dimensions throughout the entire period of operation.

Of particular importance in shoes for the buyer is the correspondence of the proposed models to the direction of fashion, which now calls for moderation and restraint, the restoration of ties with nature.

From the 40s and 70s. 20th century platforms, a combination of contrasting colors or different shades of the same color are returning to fashion. Shoes differ from previous seasons mainly in changes in style and volume, they use fewer accessories compared to previous periods. The shape of the forefoot becomes narrower, and the high heel is increasingly striving for stability. Classic stiletto heels, triangular and rectangular stable heels are in fashion. Many heels with inserts made of mirror materials in different sizes. Metal heels or half metal heels are still fashionable.

Among the materials, velor and suede are in the lead. It doesn't matter if the materials are natural or artificial - the main thing is that the shoes look spectacular. Unusually popular in shoe fashion today patent leather. Also, new models often combine materials of different textures, or high-quality natural materials with artificial ones.

Black returns to the color palette with the addition of red, white, silver, bronze decor or an unexpected explosion of pure gold. Black is followed by brown, beige, and also caramel and cognac shades, which have acquired some depth and often tend to red and purple, dark red, mustard, wine, elegant dark blue. Often the palette consists of muted tones interspersed with bright purple and scarlet.

In the assortment of shoes for winter, classic low-heeled boots with decorated multi-colored details or a freely draping top are relevant. Over the knee boots with or without high heels are also in fashion. Laces, straps, buckles, buttons, various metal fittings are welcome as decor.

In the assortment of women's shoes for spring and autumn, ankle boots are an absolute favorite. They can be very diverse: with fur trim, textile inserts, V-neck, all kinds of straps, buckles, decorative buttons and buttons ... They are usually ankle-high, and quite loose, with a narrow or square-shaped nose. Retro-style options are available with a slightly rounded and raised toe.

Fashion for summer provides wider and more interesting opportunities for updating. Models are based on designs with open heel and variable parts. Widely used combinations of straps, different in thickness, as well as criss-cross and T-shaped.

Special requirements are placed on elegant women's shoes. Actual constructive solutions - shoes "boat", low shoes. Modeling compositions of this stylecomes downto the development of a purely constructive basis of the model, often with the rejection of excessive decorativeness and a return to strict and clear lines. The fittings are distinguished by the complexity of forms and jewelry finishes using precious stones.

According to GOST 19116–2005, leather according to GOST 939–88 is used for the outer parts of the shoe upper: cowhide, outgrowth, chevro with a natural front surface, smooth, with a relief surface, with nubuck, velor finishes, as well as according to GOST 9705– 78 patent leather.

For the inner details of the top, in particular for the lining, leather is used for lining shoes according to GOST 940-81, a bike according to GOST 29298-92, natural fur according to GOST 4661-76. For winter shoes, removable insoles are used, consisting of two layers. In this case, the first layer is natural fur according to GOST 4661–76, the second layer is cardboard according to GOST 9542–89, which are glued together and trimmed around the perimeter.

According to the interstate standard GOST 19118–2005 “Model footwear. General Specifications” for the toe cap, thermoplastic materials are used according to TU 17-21-592–87, which have good elasticity and rigidity. For backs, thermoplastic materials are also used according to TU 17-21-958-73.

For details of the interlining, thermal calico TU 17-21-92-76, fumes-cord according to GOST 19196-80 are used.

For women's winter boots, molded soles based on thermoplastic elastomers according to TU 17-21-492–84 are used, since this material is resistant to abrasion, highly elastic, frost-resistant, and does not slip on snowy roads. For summer and autumn - spring shoes, soles made of leather fiber according to OST 17-92-71 are used.

Use heels of various heights and shapes made of ABS plastic according to OST 17-331-80.

The main insoles are made of shoe cardboard brand COM according to GOST 9542–89. The main semi-insoles are used to strengthen the calcaneal-gel knot in shoes with an adhesive fastening method on medium, high and extra high heels, which are made of PSM brand cardboard according to GOST 9542–89.

For laying, cardboard grade PR is used according to GOST 9542–89, which has low rigidity, i.e. resistant to repeated bending, stretching and compression.

Foam rubber is used as a soft heel pad in accordance with TU 06-1688–78.

For the gel, cardboard or metal is used according to OST 17-24-83.

The range of women's model shoes that can be offered to a shoe company for the summer, autumn-spring and winter seasons is shown in Figures 1-6.

As an example, consider the technical description of women's winter model boots (model B).

Technical description of model B:

genus - women's shoes;

view - boots;

purpose - model;

the design of the blank of the upper of the shoe - the adjusting part of the vamp, the decorative belt of the shaft;

category of complexity - the second;

the nature of the processing of the visible edges of the outer parts of the top - in the bend;

method of fastening on the foot - zipper;

block style - 845281M:

8 - for women's shoes;

4 - for insulated shoes;

5 - height of heel elevation50 mm;

2 - the shape of the toe is medium;

81 - the serial number of the block in the series;

M - for model shoes.

Table 2 shows the assortment of shoes with the time of release of models during the year (by months).

Table 2. Assortment of women's shoes

Genus, type, purpose of shoes	Symbol for a shoe model	Shoe model release time during the year
Women's summer shoes	figure 4.5 (model A)	April May
Women's autumn boots	figure 4.6 (model B)	June August
Women's winter boots	figure 4.7 (model B)	September - November
Women's spring shoes	figure 4.8 (model D)	December - February

From the presented assortment, the basic model B was chosen: boots, model socks for the winter season, since it is the most time-consuming.

Model A

Figure 1 - Assortment of women's summer shoes

Model B

Model B

Figure 2 - Assortment of women's autumn shoes

Model B

Figure 3 - Assortment of women's winter shoes

Figure 4 - Assortment of women's spring shoes

Figure 5 - Office shoes

Figure 6 - Footwear for outdoor activities

Features of the development of an assortment of men's shoes

When developing a competitive range of men's shoes, manufacturers need to take into account many factors that affect consumer demand: compliance with the main fashion trends, economic, social and climatic features of the subjects of the Southern Federal District.

It is quite difficult to find differences in the men's shoe fashion of individual seasons - the difference is barely noticeable. The most intensive period in the development of men's fashion is the last 10 years. In connection with the ongoing changes in the habits of the new generation, “formal” men's shoes, exactly like clothing, have gone beyond the usual “urban” and “fashionable” in the traditional sense of these words.

In the men's shoe fashion for the autumn-winter 2008-2009 season, serious changes will take place. They will touch on the forms of blocks, materials, colors and decor. But the main changes will still affect the style of the collections: slightly forgotten retro and newfangled techno-sport style will come to the fore.

Men's shoe fashion will continue to develop in three stylistic directions: classic, comfortable and

sporty, but the retro influence will become very noticeable next season. Along with the "eternal" classics - oxford, derby and chelsea designs - such long-forgotten shoe details as gaiters will return to fashion. two more novelties from the “new is a well-forgotten old” series - boots with a wide cross-lifting belt - an overlay fastened with two small buckles, as well as loafers. The latter - low shoes with an oval insert (most often imitated) - are sometimes decorated with an overhead strap or lace with a tassel. However, retro will manifest itself not so much in the borrowing of old designs, but in decor and finishes typical of this style, such as perforation patterns and others.

Another trendy style is techno-sport, which has an increasingly active influence on urban fashion. Solid brown, gray and greenish-marsh shades are relevant, which may not be shiny, but made of smooth leather in combination with velor or nubuck. Today it is customary to wear this very comfortable and practical type of footwear even with a classic suit.

Significant changes will also occur in the form of lasts for men's shoes. Perhaps, no season has brought such a variety of their species and such a number of innovations before! All types of toe parts are relevant: rounded, pointed, square-shaped, round-trapezoidal, rounded square, etc. At the same time, many models have a stylish hump in the toe or ally part of the shoes, therefore, a pronounced square with a hump in the vamp area or narrow noses with a convex "influx" at the very tip.

The bottom of the shoe will also change: the soles thicken, noticeable welts and corrugations appear on the running surface.

In the spring-summer season of 2023, men's fashion will not undergo drastic changes. However, it is also impossible to say that absolutely no changes will occur. Men's wardrobe will noticeably expand due to shoes, expensive sneakers and summer sandals, often reminiscent of women's models (table 3).

Along with classic low shoes with laces, stylish shoes will also appear in summer men's fashion. These are moccasins and loafers with a low oval insert or tongue, noticeably lighter, soft, comfortable, on a thin studded or leather sole with plastic breaks.

Shoes are beautifully decorated with embroidery, including contrasting, and sometimes gold threads, mainly on heraldic or nautical themes, and moccasins are decorated with bridles, lifting straps (made of contrasting material or striped rep ribbon), tassels, flags. In moccasin-type shoes, the oval insert is often made of exotic leather (hand-painted python is especially fashionable) or leather with embroidery or embossing. Also popular are braids, both real and stamped on the skin, and frequent figured perforations.

Being athletic is always in fashion. Equipment for various sports is being introduced into everyday life. And first of all it concerns shoes. Sneakers, sneakers, sneakers, pantolets are worn not only for training, but also for the office, school, institute, and, what is very important, they look stylish and trendy at the same time. The toe parts of sneakers, sneakers, sneakers are rounded, without a characteristic elevation; Of the fastening elements, lacing dominates, as a rule, understated, close to the toe. Low shoes and shoes are structurally relevant, with the exception of only some types of sneakers with high berets. Many fabrics are used in the range of footwear for outdoor activities: cotton, linen, mixed with fashionable floral, abstract (pop art), animalistic (under the skins of wild animals) heels. Relevant and smart "sports" materials, meshes, breathable climate membranes, perforated faux leather. For men, checkered, striped, pied-de-poule, graffiti-style textiles, etc. are offered.

Shoes reminiscent of sports sneakers are made of natural leather, often with inserts of gold, bronze or silver metallic leather, which contrast effectively with a matte toe or suede or velor piping. Also made of leather are typically sports elements or materials, meshes, for example, or decorative trim strips. The decision of the bottom of the shoe is also interesting: along with a typically sneaker, massive sole, some models have a leather, opal type, with plastic breaks through the skin or a rubber sole, consisting only of toe and heel parts. Some sneakers resemble sneakers made of leather, including embossed varnish. In summer, white and beige models with gold, silver, black, blue, red or brown inserts will be especially relevant.

Gradually, strapped sandals are being introduced into the conservative men's wardrobe, which have significantly pressed the position of the sandal. Unlike the latter, the sandals are noticeably more open and consist entirely of various weaves of straps. Particularly relevant are models with a strap wrapping around the thumb (the other keeps the leg up), and sandals with an interdigital jumper, reminiscent of flip flops made of leather. True, their color scheme is still quite conservative: black, white, brown and various beige shades.

Men's low shoes with laces for the summer season are noticeably lightened. They are made of thin soft leather, sometimes unlined, and also have a thin sole, including leather with plastic islands. Both oxfords (with adjustable berets) and derbies (with adjustable socks) are relevant, the finish is very fashionable this season with frequent perforations. But the main highlight is the bright color of low shoes, unusual for men's classics, for example, pink, blue or purple. Two-tone models are also relevant, especially black and white, white and gray, gray-blue and beige-brown.

Table 3. Assortment of men's shoes

Genus, type, purpose of shoes	Symbols of the shoe model	Shoe model release time during the year
Men's summer clogs with a leather upper on a molded sole with a glue fastening method	figure 4.14, model G	January March
Men's winter boots with a leather upper on a molded sole made of TPE, adhesive fastening method	figure 4.11, model A	July - September
Men's autumn low shoes with a molded sole made of PU, adhesive fastening method	figure 4.12, model B	April June
Men's spring shoes with a leather upper with side elastics and a customizable vamp on a molded PU sole, adhesive fastening	figure 4.13, model B	October December

The range of men's shoes that is relevant in this region is shown in Figures 7 - 14. The proposed range of men's shoes is manufactured in accordance with GOST 26167–2005 “Casual footwear. General technical conditions” and in accordance with GOST 19116–2005 “Model footwear. General technical conditions".

Figure .7 - Assortment of winter men's shoes

Figure 8 - Assortment of autumn men's shoes

Figure 9 - Assortment of men's spring shoes

Figure 10 - Range of summer shoes

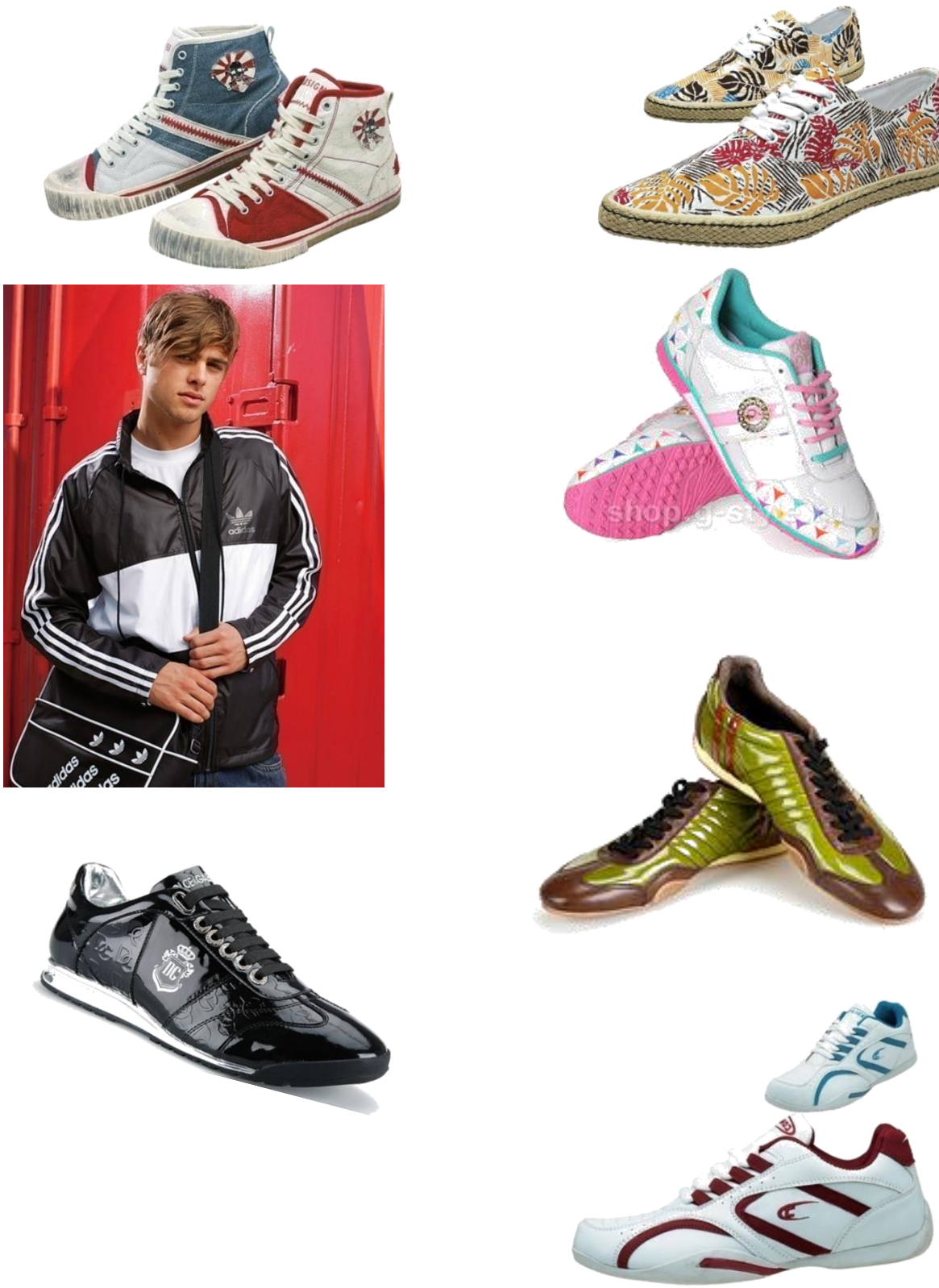


Figure 11 - Assortment of shoes for outdoor activities

Figure 12 - Assortment of men's work shoes and specials. shoes

Figure 13 - Assortment of men's strap-sandal shoes

Figure 14 - Office men's shoes

Features of the formation of an innovative technological process for the production of children's shoes for the regions of the Southern Federal District and the North Caucasus Federal District.

Thus, when developing an assortment policy, shoe enterprises should focus on both external (price and consumer niche, competing enterprises, market conditions, etc.) and internal factors, such as sales volume, profitability, covering basic costs, etc. However, it is impossible take into account and provide for all situations that may arise during the sale of shoes, i.e. some shoe models are not in demand at a certain stage. In this case, another, usually not advertised, side of marketing should appear: if shoes, even without taking into account market requirements, have already been produced, then they must be sold. For this purpose, in order to respond to the lower prices of competitors, it is necessary to reduce too large stocks, get rid of damaged, defective shoes, liquidate leftovers, attract a large number of

consumers, stimulate the consumption of shoes, using discounts for this. There are about twenty types of discounts, but for shoes the most common are those types of discounts that are used at various levels of the enterprise, sales organizations, and trade. In addition to using discounts, an enterprise can go for an initiative price reduction in case of underutilization of production capacities, a reduction in market share under the pressure of competition from competing enterprises, etc. In this case, the enterprise takes care of its costs, developing measures to reduce them by improving equipment and technology, introducing new types of materials into production, and constantly improving the quality of products. And all this requires large financial costs from enterprises, but, nevertheless, helps to increase the competitiveness of certain types of leather products and the enterprise as a whole. in addition, the greater the number of footwear products produced, the more production costs are reduced, which leads to lower prices, and most importantly, creates such conditions for the functioning of the market that would not allow other competing enterprises to enter it and would cause a positive consumer reaction.

At present, the production of competitive high quality shoes that are in demand in the market requires frequent changes in the assortment. The flow-conveyor form of organizing the production of shoes is justified in the production of shoes of the same type for a long time. When organizing production according to the principles of a conveyor flow, various types of conveyors are used as a means for automatically transporting objects of labor from operation to operation (from the launch point to the release of the finished product) and as a means of organizing the work of a team of workers.

The layout of the enterprise is understood as a symbol on the scale of the relative position on the plan of the enterprise of production, administrative, utility, auxiliary and utility rooms. When planning workshops, the following requirements are met:

economical use of space;

minimization of the length of cargo flows and transitions of workers;

ensuring the safety of employees, as well as isolation of workplaces with harmful working conditions from other workplaces;

observance of norms of the area on one workplace;

ensuring effective maintenance of workplaces, their availability, creating conditions for equipment repair.

When planning an enterprise on a scale of 1:100, a grid of columns is applied to the enterprise plan and the dimensions of the entire enterprise, workshops and those premises that are available in it are indicated. The grid of columns is the same for the entire production building.

When arranging the equipment in the workshop, the minimum allowable distances must be observed. Work on refining the dimensions of the designed workshop begins with refining their length. To do this, work stations are applied to graph paper in a technological sequence separately for assembly and blank sections, taking into account the rational organization of workplaces, installation dimensions of equipment and the distances between workplaces allowed by safety regulations.

One of the most important issues that is solved when arranging the equipment of the production workshop is the layout of the workplace in accordance with the requirements of the organization of labor. At the same time, rational techniques and methods of work, the posture of workers are determined, provision is made for equipping workplaces with auxiliary equipment, technological and organizational equipment. The layout of the enterprise includes the presence of new equipment, at the shoe assembly site, a new division of assemblers into workers performing operations preceding molding, molding operations, operations for attaching the upper blank to the bottom of the shoe, finishing and shoe packaging operations was carried out. This division provides a high quality shoe assembly (table 4).

Table 4. Specification of equipment for assembling the workpiece of a children's low shoe

1	ST-B (Russia)	Base table	7	Pfaff 591-726 (Germany)	Sewing machine for fastening parts with automatic thread trimmer
2	SS20 Comelz (Italy)	Top Hemming Machine	8	01276/P12 (Czech)	Machine for smoothing the seam with simultaneous gluing of tape

3	A2000 "Selmac" (Italy)	Duplication of the top with an interlining and insertion of a thermoplastic toe cap	9	GP 2 "collie" Italy	Sewing machine for fastening parts while trimming excess lining
4	RPP67TE "Sagita" (Italy)	Machine for bending the edges of parts with simultaneous application of hot melt adhesive and gluing of reinforcing tape	10	SZh-2	Shelf rack
5	Pfaff 574-900 (Germany)	Sewing machine for fastening parts with a double-row seam	11	TO.059-76	Shoe trolley
6	ST-B with hood (Russia)	Table for spreading and gluing parts	12	F81CMCI (Italy)	Moccasin stitching machine
The coefficient of mechanization is 0.643. The number of workers is 28 people.					

To implement this project for the development of a strategy for the production of competitive leather products, it is advisable to develop a layout of technological equipment, on the basis of which it is possible to form a technological process for the production of both men's and children's shoes with an optimal capacity of 500, 600 and 700 pairs per shift, regardless of the production area and forms of organization of production. It should also be noted that the developed technological chains can only be used for the production of footwear with an adhesive fastening method. The layout of technological equipment and workplaces for assembling the workpiece and assembling children's shoes is shown in Figures 15 - 16.

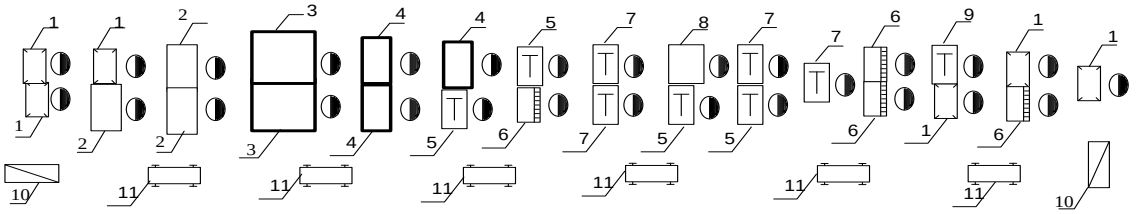


Figure 15 - Scheme of the technological process of assembling the workpiece of children's shoes (capacity - 562 pairs per shift)

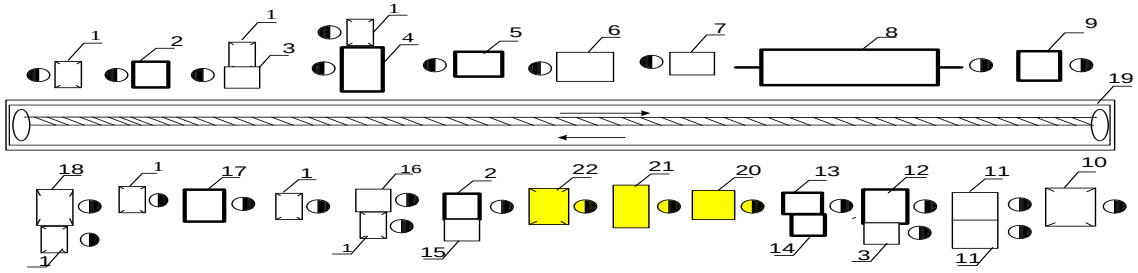


Figure 16 - Scheme of the technological process of assembling shoes for children's school shoes (capacity - 562 pairs per shift)

Features of the formation of an innovative technological process for the production of women's shoes for the regions of the Southern Federal District and the North Caucasus Federal District

In shoe production, scientific and technological progress is manifested in equipping it with new technical and automatic means, improving the technological process and production management system, expanding the use of new materials, methods for controlling the quality of finished products and production processes. The use of new equipment and advanced technologies determines the peculiarities of

performing a number of footwear manufacturing operations, increasing requirements for the properties of materials, and using more advanced forms of organization and production management.

The use of flexible technological processes is justified by their high maneuverability and the possibility of using former premises that can be adapted for the production of shoes.

Therefore, for the effective operation of domestic shoe enterprises in the production of competitive products, it is advisable to provide for the use of flexible technological processes, various fastening methods, expand shoe production, production of technical equipment, accessories, production of auxiliary materials, which will ensure a reduction in the cost of its production and increase the competitiveness of manufactured shoes. only in the markets of the SFD region, but also in the domestic markets of Russia, guaranteeing it a steady demand and sale, thereby ensuring a less painful and more effective replacement of one shoe model with another.

When developing a strategy for the production of competitive leather goods, the production of shoes will be organized using mechanized innovative technical processes, using nanotechnologies, but, possibly, in this case, the use of manual labor, which is due to the desire to satisfy the demand for exclusive products for both the elite consumer and mass satisfaction (table 5). In recent years, science and production in the light industry have become very separated from each other, and today the task is to "close" the priorities of industry with the developments of scientific schools and institutes.

Table 5. Equipment purchased under leasing

Name of equipment, office equipment	Performance	Manufacturer of equipment, office equipment	Installed capacity of equipment, kW	Quantity	Price per piece of equipment, rub.	Equipment cost, rub.
1	2	3	4	5	6	7
Sewing single-needle machine with a flat platform 441 cl.	-	pfaff, Germany	0.27	7	75000	525000
Sewing single-needle core machine 591–900 class.	-	pfaff, Germany	0.27	6	79400	476400
Two-needle sewing machine with a flat platform for stitching with a two-row seam 244 class. Pfaff	-	pfaff, Germany	0.27	four	78100	312400
Sewing two-needle core machine 574–900 cells. Pfaff	-	pfaff, Germany	0.27	3	79600	238800
630 DG	150 pairs/h	"Shen" Germany	4.5	one	341000	341000
640C	250 pairs/h	"Shen" Germany	3.25	one	362100	362100
333E	250 pairs/h	"Shen" Germany	13.0	one	87000	87000
RS2400	120 pairs/h	IROX FOX Italy	7.0	one	29000	29000
755PC	100 pairs/h	"Sigma" Italy	2.2	one	520000	520000
FR4500	150 pairs/h	IROX FOX Italy	7.5	one	42500	42500
173226/P1	-	"Svit" Czech	1.1	one	125000	125000
Total				27		3059200

It should also be noted that the developed technological chains can only be used for the production of women's shoes with an adhesive fastening method. The layout of technological equipment and workplaces for assembling the workpiece and assembling women's shoes is shown in Figures 17–18.

From the presented assortment, the basic model B was chosen: boots, model socks for the winter season, since it is the most time-consuming.

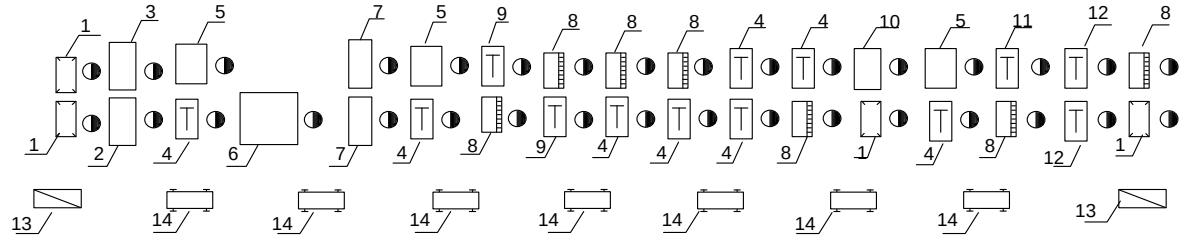


Figure 17 - Scheme of the technological process of assembling the workpiece of women's shoes (capacity - 471 pairs)

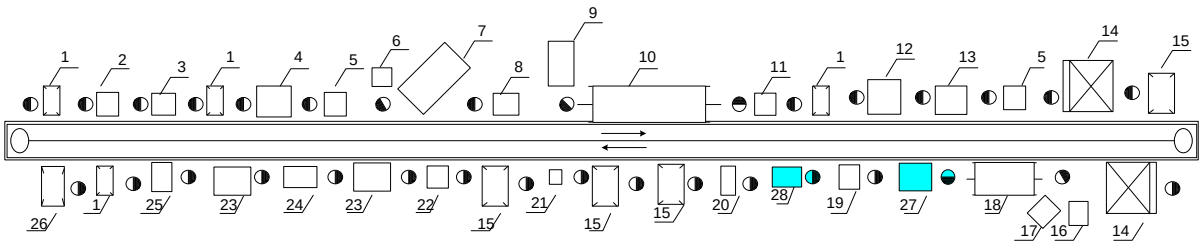


Figure 18 - Scheme of equipment for the presented scheme of the technological process of assembling women's shoes (capacity - 471 pairs)

Features of the formation of an innovative technological process for the production of men's shoes for the regions of the Southern Federal District and the North Caucasus Federal District. In shoe production, scientific and technological progress is manifested in equipping it with new technical and automatic means, improving the technological process and production management system, expanding the use of new materials, methods for controlling the quality of finished products and production processes. The use of new equipment and advanced technologies determines the peculiarities of performing a number of footwear manufacturing operations, increasing requirements for the properties of materials, and using more advanced forms of organization and production management.

The use of flexible technological processes is justified by their high maneuverability and the possibility of using former premises that can be adapted for the production of shoes. Therefore, for the effective operation of domestic shoe enterprises in the production of competitive products, it is advisable to provide for the use of flexible technological processes, various fastening methods, expand shoe production, production of technical equipment, accessories, production of auxiliary materials, which will ensure a reduction in the cost of its production and increase the competitiveness of manufactured shoes. only in the markets of the Southern Federal District and the North Caucasus Federal District, but also in the domestic markets of Russia, guaranteeing its stable demand and implementation, thereby ensuring a less painful and more effective replacement of one shoe model with another.

When developing a strategy for the production of competitive leather goods, the production of shoes will be organized using mechanized innovative technical processes, using nanotechnologies, but, possibly, in this case, the use of manual labor, which is due to the desire to satisfy the demand for exclusive products for both the elite consumer and mass satisfaction (table 6). In recent years, science and production in the light industry have become very separated from each other, and today the task is to "close" the priorities of industry with the developments of scientific schools and institutes.

Table 6. Specification of equipment for assembling the blank of men's low shoes

1	ST-B (Russia)	Base table	7	Pfaff 591-726 (Germany)	Sewing machine for fastening parts with automatic thread trimmer

2	SS20 Comelz (Italy)	Top Hemming Machine	8	01276/P12 (Czech)	Machine for smoothing the seam with simultaneous gluing of tape
3	A2000 "Selmac" (Italy)	Duplication of the top with an interlining and insertion of a thermoplastic toe cap	9	GP 2 "collie" Italy	Sewing machine for fastening parts while trimming excess lining
4	RPP67TE "Sagita" (Italy)	Machine for bending the edges of parts with simultaneous application of hot melt adhesive and gluing of reinforcing tape	10	SZh-2	Shelf rack
5	Pfaff 574-900 (Germany)	Sewing machine for fastening parts with a double-row seam	11	TO.059-76	Shoe trolley
6	ST-B with hood (Russia)	Table for spreading and gluing parts	12	F81CMCI (Italy)	Moccasin stitching machine
The coefficient of mechanization is 0.643. The number of workers is 28 people.					

It should also be noted that the developed technological chains can only be used for the production of men's shoes with an adhesive fastening method. The layout of technological equipment and workplaces for assembling the workpiece and assembling men's shoes is shown in Figures 19–20.

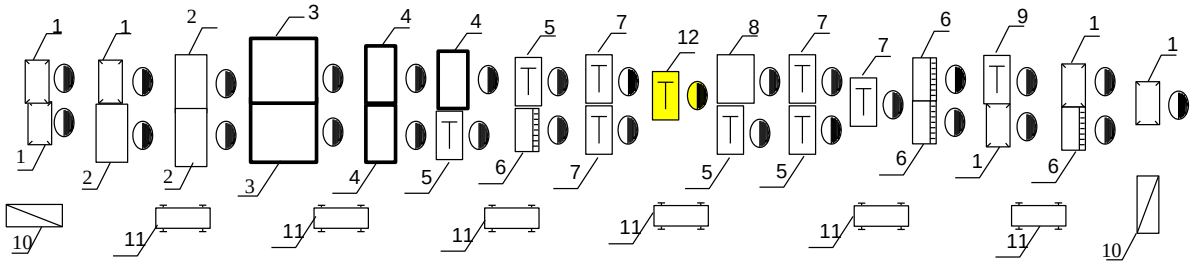
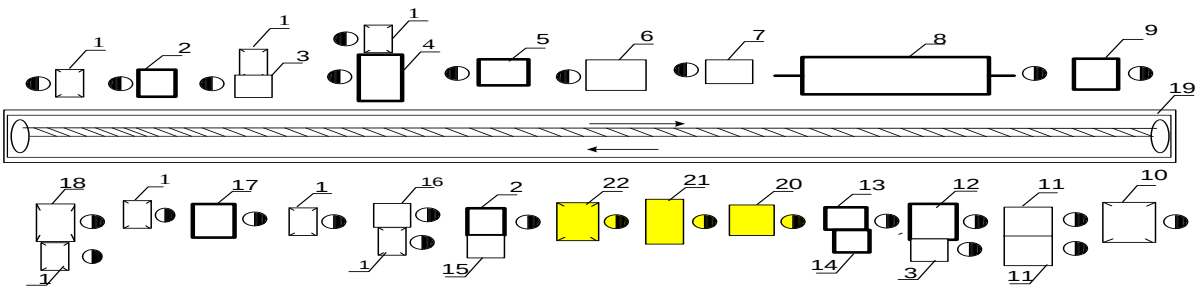


Figure 19 - Scheme of the technological process of assembling the workpiece of men's low shoes (capacity - 650 pairs per shift)



Picture. 20 - Scheme of the technological process (capacity - 650 pairs per shift)

Financial and economic evaluation of the effectiveness of decisions made. Most often, an enterprise sells shoes through stores with payment after sale, concluding contracts with trade, indicating the timing of receipt of funds to the manufacturer's accounts. In this case, if the footwear is in demand and is sold in full, then the company receives money on time, which is also needed to pay salaries, purchase working capital and other expenses to ensure the development of production. With the full sale of manufactured shoes, profit (Ppr) of profitability of 16.05% will amount to 188,930 rubles per month. If shoes are not in demand, then the company can reduce sales per month by the value of the safety indicator -

the excess of real sales over the volume of equilibrium sales.

The main tasks of control and analysis of sales are to find reserves for the most complete satisfaction of customers, increase sales of products, maximize the use of the production capacity of the enterprise, material and labor reserves, and increase the efficiency of production and economic activities.

In the process of monitoring and analyzing sales, an assessment is made of the degree of fulfillment and dynamics of production and sales of products, determining the influence of factors on the change in the value of these indicators, identifying on-farm reserves and developing measures for their development, which should be aimed at accelerating product turnover and reducing losses, which will allow achieve significant economic benefits.

Table 7 shows the relationship between revenue, costs and production volume, managing which, you can analyze the financial results of the enterprise.

Table 7. Financial results for various sales volumes of autumn low shoes

Indicators	The value of the indicator for various sales volumes per month (%)					
	100	80	60	54.4	40	30
Sales volume, pairs	13433	10746.4	8059.8	7307.55	5373.2	4030
The price of one pair, rub.	1152.5	1152.5	1152.5	1152.5	1152.5	1152.5
Sales proceeds, thousand rubles	15481.53	12385.22	9288.91	8421.95	6192.61	4644.17
Unit cost, thousand rubles	998.5	998.5	998.5	998.5	998.5	998.5
Full cost, thousand rubles, including:	13412.72	11223.5	9034.27	8421.95	6845.07	5750.57
Fixed costs, thousand rubles	2466.57	2466.57	2466.57	2466.57	2466.57	2466.57
Conditionally variable costs, thousand rubles	10946.15	8756.92	6567.7	5954.7	4378.5	3284
Profit (+) Loss (-) from sales, thousand rubles	2068.81	1161.72	254.64	0	-652.46	-1106.4
Taxes, thousand rubles	413.76	232.34	50.93	-	-	-
Net profit, thousand rubles	1655.05	929.38	203.71	-	-	-

Thus, when developing an assortment policy, shoe enterprises should focus on both external (consumer enterprises, competition, market conjuncture, etc.) and internal factors, such as sales volume, profitability, covering 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 not in demand at a certain stage. In this case, another, usually not advertised, side of marketing should appear: if shoes, even without taking into account market requirements, have already been produced, then they must be sold. For this purpose, in order to respond to the lower prices of competitors, it is necessary to reduce too large stocks, get rid of damaged, defective shoes, liquidate leftovers, attract a large number of consumers, stimulate the consumption of shoes, using discounts for this. There are about twenty types of discounts, but for shoes the most common are those types of discounts that are used at various levels of the enterprise, sales organizations, and trade. In addition to using discounts, an enterprise can go for an initiative price reduction in case of underutilization of production capacities, a reduction in market share under the pressure of competition from competing enterprises, etc. In this case, the enterprise takes care of its costs, developing measures to reduce them by improving equipment and technology, introducing new types of materials into production, and constantly improving the quality of products. And all this requires large financial costs from enterprises, but, nevertheless, helps to increase the competitiveness of certain types of leather products and the enterprise as a whole. In addition, the greater the number of footwear products produced, the more production costs are reduced, which leads to lower prices, and most importantly, creates such conditions for the functioning of the market that would not allow other competing enterprises to enter it and would cause a positive reaction from consumers. (tables 8 - 11).

Table 8. Financial results for different sales volumes of winter boots

Indicators	The value of the indicator for various sales volumes per month (%)					
	100	80	60	48.1	40	30
Sales volume, pairs	15752	12601	9451	7576.71	6300	4725
The price of one pair, rub.	1186.44	1186.44	1186.44	1186.44	1186.44	1186.44
Sales proceeds, thousand rubles	18,688.8	14,950.33	11,213.04	8989.31	7474.57	5605.93
Unit cost, thousand rubles	1007.07	1007.07	1007.07	1007.07	1007.07	1007.07
Full cost, thousand rubles, including:	15,863.36	12,690.1	9517.82	8989.31	8952.2	6583.86
Fixed costs, thousand rubles	2607.66	2607.66	2607.66	2607.66	2607.66	2607.66
Conditionally variable costs, thousand rubles	13,255.72	10,082.44	6910.16	6376	6344.54	3976.2
Profit (+) Loss (-) from sales, thousand rubles	2825.44	2260.23	1695.22	0	-	-
	-	-	-	-	-1477.63	-977.93
Taxes, thousand rubles	565.088	452.05	339.044	-	-	-
Net profit, thousand rubles	2260.35	1808.2	1356.2	-	-	-

Table 9. Financial results for different sales volumes of spring low shoes

Indicators	The value of the indicator for various sales volumes per month (%)					
	100	80	60	45.6	40	30
1	2	3	4	5	6	7
Sales volume, pairs	15426	12340.8	9255.6	7034.26	6170.4	4627.8
The price of one pair, rub.	1033.8	1033.8	1033.8	1033.8	1033.8	1033.8
Sales proceeds, thousand rubles	15947.4	12757.91	9568.44	7272.01	6378.96	4784.22
Unit cost, thousand rubles	856.77	856.77	856.77	856.77	856.77	856.77
Total cost, thousand rubles, including:	13216.7	11030.4	8844	7272.01	6657.8	5564.6
Fixed costs, thousand rubles	2285.2	2285.2	2285.2	2285.2	2285.2	2285.2
Conditionally variable costs, thousand rubles	10931.5	8745.2	6558.8	4984.76	4372.6	3279.4
Profit (+) Loss (-) from sales, thousand roubles.	2730.7	1727.51	724.44	0	-278.84	-780.38
	-	-	-	-	-	-
Taxes, thousand rubles	546.14	345.5	144.88	-	-	-
Net profit, thousand rubles	2184.56	1382.01	579.56	-	-	-

Table 10. Analysis of financial results for various sales volumes of summer clogs

Indicators	The value of the indicator for various sales volumes per month (%)					
	100	80	60	55.5	40	30
Sales volume, pairs	15512	12409	9307	8609.16	6204	4653
The price of one pair, rub.	754.23	754.23	754.23	754.23	754.23	754.23
Sales proceeds, thousand rubles	11699.61	9359.24	7019.62	6493.28	4679.24	3509.43
Unit cost, thousand rubles	643.72	643.72	643.72	643.72	643.72	643.72
Total cost, thousand rubles, including:	9985.84	8415.7	6896.15	6493.28	5276.01	4491.32
Fixed costs, thousand rubles	2137	2137	2137	2137	2137	2137
Conditionally variable costs, thousand rubles	7848.76	6278.7	4709.15	4356.06	3139.01	2354.32
Profit (+)	1713, 77	943.54	123.47	0	-	-
Loss (-) from sales, thousand rubles	-	-	-	-	-596.77	-981.89
Taxes, thousand rubles	342.75	188.71	24.7	-	-	-
Net profit, thousand rubles	1371.02	754.83	98.77	-	-	-

Table 11. Annual results of the shoe enterprise in the production of the entire range of footwear

Indicators	Jan.	Feb.	March	Apr.	May	June	July	Aug.	Sen.	Oct.	Nov.	Dec.
Sales volume, pairs	26114	26114	29661	29661	29661	28168	28168	28168	25358	25358	25358	26114
Sales proceeds, thousand rubles	45032.84	45032.84	31026.82	31026.82	31026.82	24033.9	24033.9	24033.9	30640.47	30640.47	30640.47	45032.84
Unit cost of production, rub.	1435.54	1435.54	890.2	890.2	890.2	726.7	726.7	726.7	1024.58	1024.58	1024.58	1435.54
Full cost, thousand rubles	37487.78	37487.78	26405.04	26405.04	26405.04	20373.34	20373.34	20373.34	25747.78	25747.78	25747.78	37487.78
Profit from sales, thousand rubles	7545.06	7545.06	4621.78	4621.78	4621.78	3660.56	3660.56	3660.56	4892.69	4892.69	4892.69	7545.06
Income tax, thousand rubles	1509	1509	924.36	924.36	924.36	732.112	732.112	732.112	978.5	978.5	978.5	1509
Net profit, thousand rubles	6036	6036	3697.4	3697.4	3697.4	2928.448	2928.448	2928.448	3914.19	3914.19	3914.19	6036
Product profitability, %	16.8	16.8	14.9	14.9	14.9	15.2	15.2	15.2	15.9	15.9	15.9	16.8

Conclusion

In recent years, the system of values that existed in industry has undergone major changes. In the improvement of production processes at European light industry enterprises, the rate on intellectual resources is noticeably increased. The guarantors of success are not the size of the enterprise and capital, but ingenuity and creativity, the use of computers, marketing, the latest management methods and the ability to quickly respond to changing world market demands.

Therefore, the authors of the collective monograph tried to present their vision of a way out of the crisis of the domestic light industry in order to ensure demand for the products of the enterprises of the Southern Federal District and the North Caucasus Federal District and create prerequisites for its competitiveness. Such a decision is expedient not due to the transfer of production to other countries (use of outsourcing), but due to the formation of efficient production within the framework of the ASEZ. This is possible provided that all branches of government are interested in creating additional jobs, reducing the number of unemployed with a significant easing of tension in the already explosive regions of the Southern Federal District and the North Caucasus Federal District. After all, no one has canceled the old truth: if you want to know if a person is well dressed, look at his legs, but for a person to have such a desire,

1. An assortment policy has been developed for the formation of competitive men's, women's and children's shoes, taking into account factors affecting consumer demand: compliance with the main fashion trends, economic, social and climatic features of the regions of the Southern Federal District and the North Caucasus Federal District, the production of which using modern innovative technological processes, as well as for meet the demand of the elite consumer, using manual labor create the basis for meeting the demand for shoes for the buyer of these regions.

2. Innovative technological processes have been developed for the production of men's, women's and children's shoes using modern technological equipment with advanced nanotechnologies, which form the basis for reducing the cost of footwear and providing it with an increase in competitiveness with the products of leading foreign companies, with the possibility of a wide range of footwear production not only by types, but also by methods of fastening, which guarantees its demand in full.

3. Layouts of technological equipment are proposed, on the basis of which it is possible to form a technological process for the production of men's and children's, as well as women's shoes with optimal power from the production area and the form of production organization.

4. Software has been developed for calculating cash receipts from the operating activities of shoe enterprises based on assessing the degree of implementation and dynamics of production and sales of products, determining the influence of factors on the change in the value of these indicators, identifying on-farm reserves and developing measures for their development, which are aimed at accelerating product turnover and reduce losses, which guarantees enterprises a stable TEP and prevents them from bankruptcy.

5. Software has been developed for the formation of the technological process of assembling shoes and determining the cost of producing an assortment of shoes. A computer simulation model has been implemented that describes the dynamics of the shoe assembly process. The proposed methodology and the software implemented on this basis make it possible to reduce the duration of technological preparation for production and increase, due to the rationalization of the technological process, the specific consumer effect of footwear.

6. Comprehensive indicators of the effectiveness of innovative technological processes for the manufacture of shoes are calculated. Taking into account the production program, promising options for technology and equipment have been formed, the most effective one has been selected; the possibilities of streamlining the flow were identified, allowing to eliminate bottlenecks, to minimize equipment downtime, which is one of the conditions for designing innovative technological processes. The reliability of the calculations carried out to assess the effectiveness of technological processes using targeted programming methods for various technological and organizational solutions is confirmed by calculations of economic efficiency indicators: cost, profit and profitability, etc.

7. The proposed method allows to reduce the duration of technological preparation of production and reduce the time of expert work while maintaining the required depth and validity of engineering conclusions. The economic effect of the research is expressed in the intellectualization of the work of a technologist with a reduction in the time spent on developing an assortment of manufactured shoes and evaluating the effectiveness of technological processes in comparison with a typical economic calculation of the total cost of manufacturing shoes.

8. The analysis of the influence of the forms of organization of production and manufacturing technology on the cost of footwear was carried out using the example of the technological process of manufacturing children's, women's and men's shoes, taking into account the shift program. Theoretical dependencies are obtained to assess the influence of the factor "organization of production" on individual costing items in general and other technical and economic indicators in order to prevent enterprises from bankruptcy.

9. An effective solution has been developed to manage the competitiveness of shoe industry

enterprises formed into a cluster based on the ASEZs, through the use of an innovative technological process for the entire assortment of the shoe cluster, equipped with universal, highly efficient and multifunctional equipment.

10. Recommendations have been developed on providing regulatory documentation for the formation of quality and confirmation of the conformity of shoes within the framework of the Customs Union, which will make it possible to prepare certificates of conformity and declarations of conformity of the Customs Union for the entire assortment of the shoe cluster based on ASEZs.

11. Substantiated proposals for the creation of a testing laboratory within the cluster, in which it is supposed to test footwear to verify its compliance with the quality and safety indicators established in regulatory documents.

12. The role and main tasks of the metrological service are formulated, its organizational structure is developed.

13. Measures have been developed for testing and assessing the quality and safety of footwear.

To assess the effectiveness of the production activities of a shoe enterprise, it is necessary to analyze the annual results of the enterprise's work on the production of men's and women's footwear assortment. These calculations indicate that with 100% of the sale of men's and women's shoes in the specified period of time, not only the costs of production and sale of products are covered, but there is also a profit in the amount of 3697.4 thousand rubles. This indicates the effective operation of the enterprise, as well as the correct marketing and assortment policy. Product profitability is 14.9%.

Most often, an enterprise sells shoes through stores with payment after sale, concluding contracts with trade, indicating the timing of receipt of funds to the manufacturer's accounts.

In this case, if the footwear is in demand and is sold in full, then the company receives money on time, which is also needed to pay salaries, purchase working capital and other expenses to ensure the development of production.

During the year, the company produces 327,903 pairs of shoes. With 100% sales of these products, the company will receive revenue in the amount of 392202.1 thousand rubles. However, this situation is not always the case.

For example, when selling autumn low shoes in the amount of 80% of the production volume, the profit is reduced by 43.15% and amounts to only 1178 thousand rubles, while the sale of shoes less than 47.4% of the production volume brings losses to the enterprise. Due to the lack of funds, it is necessary to reduce the volume of production, delay the payment of wages to workers, for which at present the heads of the enterprise can be held accountable, even criminally. If such a situation arises, it is necessary to attract borrowed funds to cover costs and organize subsequent production, which is currently associated with certain difficulties: the interest on the loan has been significantly increased (up to 18%), the loan repayment period has been reduced, etc., leading to an even greater increase in production costs. Shoe enterprises should focus on both external (consumer enterprises, competition, market conditions, etc.) and internal factors, such as sales volume, profitability, covering basic costs, etc. However, it is impossible to take into account and foresee all situations that may arise during the sale of shoes, i.e. some shoe models at a certain stage are no longer in demand. In this case, another, usually not advertised, side of marketing should appear: if shoes, even without taking into account market requirements, have already been produced, then they must be sold. For this purpose, in order to respond to lower prices of competitors, it is necessary to reduce too large stocks, get rid of damaged, defective shoes, liquidate leftovers, attract a large number of consumers, stimulate shoe consumption, using discounts. There are about twenty types of discounts, but for shoes the most common are those types of discounts that are used at various levels of the enterprise, sales organizations, and trade. In addition to using discounts, an enterprise can go for an initiative price reduction in case of underutilization of production capacities, a reduction in market share under the pressure of competition from competing enterprises, etc. In this case, the enterprise takes care of its costs, developing measures to reduce them by improving equipment and technology, introducing new types of materials into production, and constantly improving the quality of products. All this requires large financial expenditures from enterprises, but, nevertheless, helps to increase the competitiveness of certain types of leather products and the enterprise as a whole. In addition, the greater the number of footwear products produced, the more production costs are reduced, which leads to lower prices, and most importantly, creates such conditions for the functioning of the market that would not allow other competing enterprises to enter it and would cause a positive reaction from consumers.

The developed software allows the head of the enterprise not only to monitor the flow of funds on a daily basis, but what is especially important, to predict the replacement of one model, the demand for which has decreased to a critical volume, when funds are not provided to cover the production costs associated with this model, and the transition to production of a new model, the demand for which, based on the analysis of the marketing service, as it were, guarantees its viability and demand in an amount sufficient not only to cover the costs of its production, but also to obtain the necessary profit to ensure the production itself without provoking bankruptcy. Of course, it’s good when there is already the necessary support for this very demand for a new model, namely:

 agreements with consumers on delivery with prepayment;

 a guarantee of branded stores that during the trial sale the models caused demand and there is a demand for themwithin the limits of those volumes at which the return of funds spent on their launch will be ensured and profit will be ensured, which will ensure that the enterprise receives high TEC and stability in the formation and provision of competitive and demanded products to the consumer.

Thus, taking into account the software for tracking the movement of cash flow and the presence of a well-established marketing service that is able to provide the very process of regulating the demand for the company's products, it is always possible to make the right decision to replace one model with another, while creating the basis for obtaining high TEC and preventing the labor collective from bankruptcy.

Of course, all this is just a wish, but in reality such work should be carried out daily. For this, it is necessary to reconsider our attitude to the so-called break-even point, which, as it were, forms the conditions for the implementation of all our conclusions on the formation of competitive industries, providing labor collectives with high TEP and creating the basis for preventing their bankruptcy.

The traditional version of building a break-even point provides an understanding that the output of a given model cannot be less than a certain number of pairs of a given model.

But with a large assortment of production, the number of manufactured pairs is formed by its demand, and if demand does not ensure its implementation in the volume that ensures the return of all funds spent on this model to the enterprise, in this case the manager must decide on the advisability of launching it into production. Therefore, we consider it justified when constructing the break-even point to indicate not only the volume of production of this model, which would guarantee the return of all costs for this model, but also for how long it is necessary to replace it with a new one so that the return of these funds is provided in full and with receipt arrived.

Almost all experts agree that in the conditions of international competition of the next century, it is not the largest, but the most flexible light industry enterprises that retain their positions.

According to the Institute of Commodity Science and Wholesale Market Research, domestic production in Russia in 2021 decreased to 55.6 million pairs. In the context of the global economic crisis, this may lead to a shortage in some footwear price categories. It is obvious that with the total demand of Russia within 540÷580 million pairs of shoes per year, Russian enterprises face the problem of increasing production volumes, a similar situation with other domestic light industry enterprises.

The continuing exchange rate of the dollar against the ruble entails a further increase in prices for foreign-made products. Right now, those Russian manufacturers that produce high-quality light industry products can count on new sales markets within Russia and on new segments of buyers. Evidence of this is the fact that many large Russian trading companies have partially or completely switched to the production and trade in domestic light industry products.

Encouraging phenomena, albeit timidly, but appear directly in the shoe market. So, in 2021, there was a certain stabilization in sales of products through trade organizations. According to most experts, this is due to the reorientation of the population to the purchase of shoes in stores where quality assurance is higher than in "wholesale". In Russia, a new consumer standard is clearly being formed, in which cheap, low-quality shoes may not find their buyer. By the way, this is also manifested in the fact that the once unconditional trust of Russians in imports has noticeably shaken. This gives domestic manufacturers some chance, at least, to press the Asian competitors who have usurped the sector of cheap shoes, they are quite capable of. It is only important to remember that focusing exclusively on the production of inexpensive mass-demand products in a saturated market is fraught with a sales crisis. The prospects of Russian manufacturers are connected primarily with buyers who are ready to pay a little more for guaranteed quality and a fashionable style. Everything suggests that this particular group of buyers will expand faster than others in our country.

In the new economic conditions, only such production is progressive, which actively and dynamically responds to emerging tasks. The principle of “producing only what is needed, when needed, and as much as needed” requires light industry enterprises to adapt to the conditions for producing products in small batches with frequent changes in the assortment, i.e. to the conditions of many assortment small-scale production. The efficiency of the activity of light industry enterprises, and in many respects the ability to survive in the competitive struggle, depend on the ability to quickly and cost-effectively change to produce products in accordance with fluctuations in demand. Great opportunities for this are opened by the development and implementation of flexible production systems.

Technological and organizational flexibility of production systems determines the variable potential of enterprises, their ability to quickly and adequately respond to changes in market conditions and acts as a mechanism for optimizing the structure of the technological system in order to reduce the cost of footwear. Thus, the development of flexible technological processes for the production of light industry products will ensure high efficiency of the light industry and provoke a sharp increase in demand

for the products of light industry enterprises in the regions of the Southern Federal District and the North Caucasus Federal District.

The authors outlined the structure of the assortment of shoes of manufacturing companies in the region by types, materials, season of wear, price levels, in order to analyze the market situation, which made it possible to identify those types of shoes that will be in high demand. Their aesthetic and constructive characteristics are formed.

The elements of the expert system for the operational management of a multi-assortment production developed by the authors make it possible to calculate the optimal structure of the assortment of footwear produced and determine the total cost of production of the entire assortment range of models, which makes it possible to calculate the price niche for the full sale of manufactured footwear.

Theoretical dependencies are obtained to assess the influence of the factor "organization of production" on individual costing items in general and other technical and economic indicators. At the same time, an analysis was carried out and the influence of the forms of organization of production and manufacturing technology on the cost of footwear was determined using the example of the technological process of manufacturing children's, men's and women's shoes, taking into account the shift program.

Recommendations have been developed for varying the share of costs of costing items for the manufacture of a large assortment of output with the possibility of predicting the cost and sales volumes of products, taking into account the demand for shoes in the regions of the Southern Federal District and the North Caucasus Federal District.

Functional and simulation models of business processes for the production of leather goods have been developed, a formal description of the organization of the current technological process and initial data for evaluating the effectiveness of technological processes for the manufacture of various types of footwear, taking into account the existing demand for it, have been obtained.

A methodology has been developed for multi-criteria evaluation of the effectiveness of innovative technological processes for the production of leather goods based on the application of the target programming methodology.

Software has been developed for the formation of the technological process of assembling shoes and determining the cost of producing an assortment of shoes. A computer simulation model has been implemented that describes the dynamics of the shoe assembly process. The proposed methodology and the software implemented on this basis make it possible to reduce the duration of technological preparation for production and increase, due to the rationalization of the technological process, the specific consumer effect.

The complex indicators of the effectiveness of innovative technological processes for the manufacture of shoes are calculated. Taking into account the production program, promising options for technology and equipment have been formed, the most efficient one has been selected, the possibilities for streamlining the flow have been identified to eliminate bottlenecks and minimize equipment downtime, which is one of the conditions for designing flexible technological processes for the production of light industry products with a demanded price niche.

The economic effect of the results of scientific research is determined, which are estimated in terms of increasing labor productivity, the level of mechanization of production, lowering the indicators of work in progress and production costs. An accessible tool for light industry production technologists to improve the design of technological processes is proposed, which allows the enterprise to form a competitive assortment and predict the maximum income from the production of light industry products for the regions of the Southern Federal District and the North Caucasus Federal District.

The authors support the idea of creating vertically integrated associations (TORs) in the Southern Federal District, which would deal with the entire cycle of ensuring the production of light industry products. This will improve quality control, reduce costs, increase profits, vary the price niche, providing domestic products with competitiveness and sustainable demand, and social protection for residents of the regions of the Southern Federal District and the North Caucasus Federal District. We believe that the results of the study and analysis of the state of the light industry, presented by the authors, will help industry representatives in choosing an effective solution for implementing the strategy for the development of all sectors of the light industry in the mining single-industry towns of the Rostov region in order to reduce the migration of the population of these cities and create social conditions for the population to live.

— It is planned to create ASEZs on the basis of the mining towns of the Rostov Region in accordance with the Federal Law of December 29, 2014 No. 473 - FZ "On the Territories of Advanced Social and Economic Development in the Russian Federation", since in accordance with it, residents are provided with a preferential tax treatment and reduction administrative barriers, solving such a topical problem for domestic enterprises as preventing them from bankruptcy. This decision acquires special significance in the formation of new, or in the restructuring of former light industry enterprises located in these regions, filling them with innovative technologies. The implementation of these proposals will create more than 30 thousand new jobs in these

territories and provide more than 109 million rubles of investment.

References:

1. (2021). *Methodological and socio-cultural aspects of the formation of an effective economic policy for the production of high-quality and affordable products in the domestic and international markets:* monograph /O.A. Golubeva [and others]; with the participation and under the general. ed. k. philosopher. n, prof. Mishina Yu.D., Dr. of Tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.379). Novocherkassk: Lik.
2. (2020). *Features of quality management manufacturing of import-substituting products at the enterprises of the regions of the Southern Federal District and the North Caucasus Federal District using innovative technologies based on digital production*: monograph /O.A. Golubeva [i dr.]; with the participation and under total. ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University, Novocherkassk: Lik.
3. (2006). *Prerequisites for the creation of shoe enterprises in the Southern Federal District in an uncertain market environment:* monograph / V.T. Prokhorov [i dr.]. (p.191). Mines: YURGUES.
4. (2008). *Quality management of competitive and demanded materials and products:* monograph / Yu.D. Mishin and others; under total ed. d.t.s., prof. V.T. Prokhorov. (p.654). Mines: Publishing House of GOU VPO "YURGUES".
5. (2009). *How to ensure sustainable demand for domestic products of the fashion industry:* monograph / Mishin Yu.D. [and etc.]. (p.443). Mines: YURGUES Publishing House.
6. (2009). *Technical regulation: the basic basis for the quality of materials, products and services:* monograph / V.T. Prokhorov [and others]. (p.325). Novocherkassk: Lik.
7. (2009). *Modern approaches to ensuring demand for the products of shoe enterprises in the Southern Federal District:* monograph [Text] / V.T. Prokhorov and others; under total ed. prof. V.T. Prokhorova. (pp.29-137). Mines: Publishing House of GOU VPO "YURGUES".
8. (2012). *Managing the production of competitive and demanded products:* monograph by V.T. Prokhorov [and others]; under total ed. d.t.s., prof. V.T. Prokhorov. (p.280). Novocherkassk: YuRGTU (NPI).
9. (2012). *Restructuring of enterprises - as one of the most effective forms of increasing the competitiveness of enterprises in markets with unstable demand*: monograph / N.M. Balandyuk [and others]; under total ed. d.t.s., prof. V.T. Prokhorov; FGBOU VPO "South-Ros. state University of Economics and Service". (p.347). Mines: FGBOU VPO "YURGUES".
10. (2012). *Influence of cash flow on the efficiency of the cluster formed on the basis of shoe enterprises of the Southern Federal District and the North Caucasus Federal District* / L.G. Gretskaya [and others]; under total ed. d.t.s., prof. V.T. Prokhorov. (p.354). Mines: FGBOU VPO "YURGUES".
11. (2012). *Innovative technological processes in the light industry for the production of competitive and demanded products:* monograph / V.T. Prokhorov, T.M. Aspen, L.G. Gretskaya; under total ed. d.t.s., prof. V.T. Prokhorov; ISOiP (branch) DSTU. (p.435). Mines: ISOiP (branch) DSTU.
12. (2012). *Quality management of materials and products:* monograph / V.T. Prokhorov [and others]; under total ed. d.t.s., prof. V.T. Prokhorov; ISOiP (branch) DSTU, LAP Lambert Academic Publishing, (p.220).
13. (2015). *Science-intensive technologies in the service of human ecology*: monograph / I.V. Cherunova, S.A. Kolesnik, S.Sh. Tashpulatov, A.D. Chorny and others - under the Society. ed. d.t.s., prof. I.V. Cherunova. Based on materials of the II Intern. sci.-tech. conf. "Science-intensive technologies in the service of human ecology, ISOiP (branch) of DSTU in Shakhty. (p.144). Novocherkassk: Lik.
14. (2015). *Assortment and assortment policy*: monograph / V.T. Prokhorov, T.M. Aspen, E.V. Kompanchenko [and others]; under total ed. Dr. tech. sciences, prof. V.T. Prokhorov; ISOiP (branch) DSTU. (p.246). Novocherkassk: YuRGPU (NPI).
15. (2015). *On new opportunities for the regions of the Southern Federal District and the North Caucasus Federal District in the formation of consumer preferences for products*

manufactured at light industry enterprises: monograph / V.T. Prokhorov, T.M. Aspen, E.V. Kompanchenko [and others]; by total ed. d.t.s., prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (fil.) Feder. state budget educate. institutions of higher prof. education "Don State. those. un-t "in the city of Shakhty Rost. region (ISOiP (branch) DSTU). (p.316). Novocherkassk: YuRGPU (NPI).

16. (2014). On the influence of nanomaterials and technologies on the casting properties of polymer compositions based on ethylene with vinyl acetate / V.T. Prokhorov, N.V. Tikhonova, T.M. Osina, D.V. Reva, A.A. Tartanov, P.N. Kozachenko. *Bulletin of the Kazan Technological University*, V. 17, No. 19, pp. 130-135.
17. (2015). *On new opportunities for the regions of the Southern Federal District and the North Caucasus Federal District in the formation of consumer preferences for products manufactured at light industry enterprises*: monograph / V.T. Prokhorov, T.M. Aspen, E.V. Kompanchenko [and others]; by total ed. d.t.s., prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (fil.) Feder. state budget educate. institutions of higher prof. education "Don State. those. un-t "in the city of Shakhty, Rost.reg. (ISOiP (branch) DSTU). (p.316). Novocherkassk: YuRGPU (NPI).
18. (2017). *The concept of import substitution of light industry products: prerequisites, tasks, innovations:* monograph / Prokhorov V.T. [and etc.]; under total ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) Don State Technical University. (p.334). Mines: ISOiP (branch) DSTU.
19. (2014). *Quality revolution: through advertising quality or through real quality*: monograph / V.T. Prokhorov [and others]; under total ed. d.t.s., prof. V.T. Prokhorov; ISOiP (branch) DSTU. (p.384). Novocherkassk: YuRGPU (NPI).
20. (2015). *Assortment and assortment policy*: monograph / V.T. Prokhorov, T.M. Aspen, E.V. Kompanchenko [and others]; under general ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (fil.) Feder. state budget educate. institutions of higher prof. education "Don State. tech. un-t "in the city of Shakhty, Rost.reg. (ISOiP (branch) DSTU). (p.503). Novocherkassk: YuRGPU (NPI).
21. (2018). *Managing the real quality of products and not advertising through the motivation of the behavior of the leader of the team of the light industry enterprise:* monograph / O.A. Surovtseva [i dr.]; under total ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.384). Novocherkassk: YuRGPU (NPI).
22. (2018). *The competitiveness of the enterprise and the competitiveness of products is the key to successful import substitution of goods demanded by consumers in the regions of the Southern Federal District and the North Caucasus Federal District*: a collective monograph / V.T. Prokhorov [and others]; under total ed. Dr. tech. sciences, prof. V.T. Prokhorov; Institute of Service and Entrepreneurship (branch) of the Don State Technical University. (p.337). Mines: ISOiP (branch) DSTU.