EXPERT ANALYSIS OF THE QUALITY OF MATERIALS FOR SPECIAL CLOTHING

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ANNOTATION:

In this article, a survey was conducted among consumers and expert-experts for expert assessment of the quality indicators of materials for special clothing, and according to the results of the survey obtained, the indicators were determined by the calculation formulas. On the basis of the results, the coefficients of the Concord on the evaluation of experts ' mutual agreement were calculated.

Keywords: Custom clothing, quality indicators, air permeability capillary, warm storage, shape storage, capillary, esthetics, expert assessment.

INTRODUCTION:

Modernization and diversification of the textile and clothing industry is the most important condition for expanding the volume and variety of finished competitive products in high demand in foreign markets, increasing the efficiency and profitability of growing and processing of raw cotton.

With this in mind, the country is consistently implementing practical measures to ensure the further development of this sector. In particular, the Decree of the President of the Republic of Uzbekistan dated December 21, 2016 No PP-2687 approved a program of measures for further development of the textile and clothing industry in 2017-2019 [1].

Today, the demand for a variety of special clothing is growing. Great knowledge and skills are required from a specialist in sewing special clothes. In the process of sewing special clothing, it is necessary to take into account the correct choice of fabric and processing of materials with the desired composition, which enhances the protective properties of these materials. Before designing special clothing, the working conditions of the workers are studied in detail and technical requirements are developed based on them.

In the study of working conditions of workers are considered factors of production and their impact on man, the weight of work performed, the dynamics of labor movement, work and rest plans, service life of clothing, climatic conditions and aesthetic requirements for the designer clothing data are collected. Fabrics recommended for special clothing should be strong, light and durable for a long time [2].

X_1- air permeability X_2- capillary
X_3- hot Storage X_4- figure Storage
X_5- lightness X_6- color fastness
X_7- - aesthetics X_8- operational
(ease of use)

Experts passeword	X_i –level evaluation of quality indicators								
	X_1	X_2	X_3	X_4	X_5	X_6	X_7	X_8	sum
1	2	5	4	6	3	7	8	1	36
2	1	5	7	8	4	3	2	6	36
3	2	6	8	4	1	7	5	3	36
4	6	2	8	4	3	5	7	1	36
5	3	4	5	2	6	7	8	1	36
6	3	5	6	7	8	4	2	1	36
7	1	4	3	8	2	6	7	5	36
8	2	7	4	5	3	8	6	1	36
S_i	20	38	45	44	30	47	45	19	288
mn- S_i	44	26	19	20	34	17	19	45	224
Y_i	0.2	0.11	0.08	0.09	0.15	0.07	0.08	0.2	0.98
Y_{i0}	0.19	0.12	-	-	0.15	-	-	0.1	0.56
δ_{i0}	2.7	1.09	-	-	1.0	-	-	0.5	5.29
$1/ S_{i*} 10^2$	5	2.63	2.2	2.27	3.33	2.12	2.22	5.26	25.03
$S_i - \bar{S}$	38								38
$(S_i - \bar{S})_2$	1444								1444

For the expert assessment of the quality of materials for special clothing, after sociological research, m survey data of consumers or experts are used, ie in addition to the selected material properties x1, x2, ……….xn are given a step-by-step evaluation for their significance, and the more important ones are marked with a R = 1 step quality indicator, and the less important ones are marked with a R = n step quality indicator.

The coefficient of concordance is the nature of the assessment in the mutual agreement of experts. [3]

$$\sum_{i=1}^{n} R_{ji} = (1 + 2 + 3 + …..n) = 0.5n(n+1)$$

(1) we calculate for each indicator according to the formula

$X_1=$ m*n-S_{i1}=64-20=44
$X_2-=$m*n-S_{i2}=64-38=26
$X_3=$m*n-S_{i3}=64-45=19
$X_4=$m*n-S_{i4}=64-44=20
$X_5=$ m*n-S_{i5}=64-30=34
$X_6=$m*n-S_{i6}=64-47=17
$X_7=$ m*n-S_{i7}=64-45=19
$X_8=$m*n-S_{i8}=64-19=45

For each property of the material, the sum of the transverse steps depends on m and n. Significant coefficients are determined by the formula (2) for each n selected properties, as well as the stepwise evaluation of all experts for the properties not less than Smax = m * n:

$$Y_i = \frac{s_{max} - s_i}{\sum_{i=1}^{n}(s_{max} - s_i)} = \frac{mi - s_i}{mn^2 - m\sum_{i=1}^{n} R_{ji}} \quad (2)$$

Given the equality of the formula, then formula (2) will have the following appearance.

$$Y_i = \frac{mn - s_i}{0.5mn(n-1)} \quad (3)$$

$$Y_{io} = \frac{mn}{mnn - \sum_1^{n_o} s_{io}} \quad (4)$$

Where: n0-is the number of more selected significant properties; Si0- is the sum of the steps for each classified property. We identify the most important features of the given calculations.

γ_{i1}=m*n-S$_i$/0,5m*n(n-1)= 44/0,5*64*7=44/224=0,2
γ_{i2}= m*n-S$_i$/0,5m*n(n-1)= 26/0,5*64*7=26/224=0.11
$\gamma_{i3=}$ m*n-S$_i$/0,5m*n(n-1)= 19/0,5*64*7=19/224=0,08
$\gamma_{i4=}$ m*n-S$_i$/0,5m*n(n-1)= 20/0,5*64*7=20/224=0,09
¦$\gamma_{i5=}$ m*n-S$_i$/0,5m*n(n-1)= 34/0,5*64*7=34/224=0,15
$\gamma_{i6=}$ m*n-S$_i$/0,5m*n(n-1)= 17/0,5*64*7=17/224=0,07
$\gamma_{i7=}$ m*n-S$_i$/0,5m*n(n-1)= 19/0,5*64*7=19/224=0,08
$\gamma_{i8=}$ m*n-S$_i$/0,5m*n(n-1)= 45/0,5*64*7=45/224=0,2

We identify the most important features of the given calculations. To do this, we define the following conditions

$Y_{i0}> 1/n$
$Y_{i0}= 1/8=0,125$

These are important properties, and we calculate the amount of the most important coefficients determined using the following equation.

$$Y_{io} = \frac{m*n - s_{io}}{mnn_0 - \sum_1^{n_o} s_{io}} \quad (5)$$

Here n0= the number of more significant indicators selected, $n_0 = 4ga$ i.e. we have this indicator equal to.

$$Y_{io}(1) = \frac{64-20}{64*4-20} = 0.19$$

$$Y_{io(2)} = \frac{64-38}{64*4-38} = 0.12$$

$$Y_{io(5)} = \frac{64-30}{64*4-30} = 0.15$$

$$Y_{io(8)} = \frac{64-45}{64*4-45} = 0.1$$

The relative significance of the selected indicators is determined by the following formula:

$$\delta_{io} = \frac{y_{io}}{y_{min}} = \frac{0,125}{0.07} = 1.8$$

$$\delta_i = \frac{y_{io}}{y_{min}} = \frac{0,19}{0.07} = 2.7$$

$$\delta_{io(2)} = \frac{y_{io}}{y_{min}} = \frac{0,12}{0.11} = 1.09$$

$$\delta_{io(5)} = \frac{y_{io}}{y_{min}} = \frac{0,15}{0.15} = 1.0$$

$$\delta_{io(8)} = \frac{y_{io}}{y_{min}} = \frac{0,2}{0.5} = 0.5$$

$$\sum_{i=1}^n (S_i - \bar{s}) = 64 + 100 + 289 + 256 + 4 + 361 + 289 + 81 = 1444$$

O'zaro kelishuvchanlik koeffisenti quyidagi formula yordamida aniqlanadi:

$$W = \frac{\sum_{i=1}^n (S_i - \bar{s})^2}{\frac{1}{12}m^2(n^3 - n) - m\sum_{j=1}^m Tj} = \frac{1444}{\frac{1}{12}*64(512-8)} = \frac{1444}{2688} = 0,5$$

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To evaluate its significance, χ2 is the criterion:

$$X^2 = Wm(n-1) = 0.5*8*7 = 28$$

$$X^2_{0.05} = 9.49$$

$$X^2 = 28 > 9.49 = X^2_{0.05}$$

CONCLUSION:

It is important to know and study the properties of fabrics in the production of clothing in the garment industry. The quality, requirements, operational requirements of the

product must be appropriate. In the article, based on the results of a survey conducted to determine the quality of materials used in the production of special clothing, we have a significant consensus of experts in the assessment.

REFERENCES:

1) Sh.Mirziyoyev Decree of the President of the Republic of Uzbekistan "On measures to accelerate the development of the textile and clothing industry" President of the Republic of Uzbekistan Sh.Mirziyoyev Tashkent, December 14, 2017.

2) M.G.Abbasova., SH.M. Mahkamova., B.B.Axmedov, T.A. Ochilov "Light industry materials science" Contact - 2005

3) H. H. Kamilova, N. K. Homrayeva "Construction of sewing products" Tashkent 2002

4) U.M.Matmusayev, M.Q. Qulmatov., T.A. Ochilov., F.X.Raximov., Z.B.Jo`rayev. "Materials Science." Science Enlightenment-2005.

5) T.A. Ochilov, M.G.Abbasova, F.J.Abdullina, Q.I.Abdulniyozov "Gazlamashunoslik" Cholpon. 2010.