

RESEARCH CONCERNING THE DESIGNERS' OPINION ON THE USE OF SILK COCOONS AS RAW MATERIAL FOR CREATING PRODUCTS OF DECORATIVE AND HANDICRAFT ART

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Abstract

The paper aimed to investigate the opinion of 30 designers on the use of silk cocoons as raw material for creating products of decorative and handicraft art. The answers have pointed out that the most designers are interested to use silk cocoons in order to process, color and design as such or in combination with other materials, using mainly the manual method which involves creativity, the setting up of unique original products, reflecting the material warmth and beauty. The main achievable products of silk cocoons in the designers' opinion, in their order of importance, are: decorative pictures on a specific theme (80%), sewed belts (50 %), colored necklaces (46.6 %) and floral brooches (33.3 %). As a conclusion, silk cocoons, mainly the unreeling ones, could be successfully processed in handicrafts and decorative art products as an alternative for production diversification, increased value added and income in the family sericultural farms.

Key words: questionnaire based survey, silk cocoons, design, decorative art products

INTRODUCTION

Silk cocoons are a natural high value raw material for textile and clothing industry. Also they can be used for creating products of decorative and handicraft art [2]. The last destination could be successfully used in the rural areas, where people could be involved in silk worm rearing for producing handicrafts and other products. In this way, they could find a profitable job under the condition to have at their disposal a minimum endowment more exactly 1 ha agricultural land and 150 s.m.rearing space where to promote production diversification making use of their work, talent and creativity in order to create beautiful, unique, natural and high value added products. People's need for beauty, unique and natural things can be satisfied producing handicrafts and decorative art products [8].

As long as cocoons market failed during the last years, silk cocoon production has to

be used for other purposes for assuring a corresponding income to sericulturists [9].

In the recent years, research work was oriented to find new solutions for the diversification of activity in the family sericultural farms and development of integrated production management. Some research results proved that applying different low cost treatments to silk cocoons, they could be transformed into decorative products such as pictures or accessories (necklaces, brooches, belts, bags, earrings etc) [3,5,6].

In this context, the paper aimed to test the opinion of decorative art designers regarding the use of silk cocoons as raw material for their products.

MATERIAL AND METHOD

In order to investigate the opinion on the use of silk cocoons as raw material for producing handicrafts and decorative art products, a sample of 30 designers from Bucharest was used. The data were collected according to a questionnaire based survey and statistically processed using Fishbein-

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Rosenberg scale model specific to such a marketing research [1, 4].

Fishbein-Roseberg model allows to evaluate someone attitude on a product based on the following mathematical formula:

$$A_{kj} = \sum_{i=1}^h W_{ik} * O_{ij}$$

where: A_{kj} – attitude of the “k” individual (designer) on “j” product (handicraft); W_{ik} – evaluation made by “k” designer for the relative importance of “i” characteristic; O_{ij} – measure in which the “j” handicraft satisfies designers regarding its “i” characteristic.

In order to evaluate “k” designer attitude for “j” handicraft it is needed to normalize the results which supposes as the sum of the evaluated attitudes to be zero, according to the formulas given below.

$$\sum_{i=1}^h W_{ik} = 1$$

$$A_{kj} = \frac{\sum_{i=1}^h W_{ik} * O_{ij}}{\sum_{j=1}^g \sum_{i=1}^h W_{ik} * O_{ij}}$$

RESULTS AND DISCUSSIONS

Social characteristics of the sample used in the questionnaire based survey

Age structure: Of the total 30 respondents, 76.6% (23 persons) were of 20-30 years old, 6.6% (5 individuals) were of 31-40 years old, 6.8% (2 individuals) between 41 and 50 years.

Sex structure: 26 individuals (86.66%) were women and 4 persons were men (13.34%).

Interpretation of the answers given to questions during the interview

At Question 1: “Have you ever used silk cocoons as raw material in decorative art?”, 93.3 (28) interviewees answered „no” and only 6.7% (2) said „yes”. This proves that most of designers did not know that they

could also include silk cocoons on the list of raw materials that they usually utilize.

At Question 2: “In what form do you think you could use silk cocoons like raw material in the field of decorative art?”, 40% (12) respondents would be interested to cut, color and shape them in combination with other materials, 26.6% (8) would like to cut, color and shape them as such, 20% (6) would prefer to color and shape them, and 13.3% (4) would prefer to use them as such in order to preserve their natural appearance.

At Question 3: “Which is the preferred method of modelling raw materials used in decorative art?”, 80% (24) of the interviewed designers opted for manual method, 16.6% (5) for using the loom and 3.4% (1) for other methods.

At Question 4: “Why do you prefer manual method to create products of decorative art?”, 56.6% (17) of the interviewed persons answered that products manually created are unique and original, 16.6% (5) considered that the manual method involves more creativity, other 16.6% (5) had no opinion and 10.2% (3) sustained that manual processing reflects fineness, texture and color much better.

At Question 5: “What raw materials do you prefer to use for creating products of decorative art?”, 70% (21) designers preferred natural raw materials, 10% (3) artificial raw materials and 20% (6) a mixture of natural and artificial raw materials. Objects of natural raw material are preferred by clients because they are elegant and healthier.

At Question 6: “If you would use silk cocoons like raw material, what products of decorative art would you prefer to design?”, 40% of respondents answered that they would prefer to create clothing accessories (beads, bracelets, belts), 20% answered decorative pictures, 10% art works, 6.66% decorative objects, other 6.66% textile jewelry, other 6.66% tapestries, 3.34% clothes, other 3.34% fabrics and other 3.34% volumes. Therefore, silk cocoons could be easy processed in a large variety of useful and nice objects destined mainly for women but also for house decoration (Table 1).

Table 1 Observed values concerning products that designers would like to create of silk cocoons

Answer variant	No.of respondents	Share (%)
Decorative objects	2	6.66
Textile jewelry	2	6.66
Clothing accessories (Beads, bracelets and belts)	12	40.00
Decorative pictures	6	20.00
Art works	3	10.00
Tapestries	2	6.66
Clothes	1	3.34
Fabrics	1	3.34
Volumes	1	3.34
Total	30	100.00

Source:Questionnaires. Own calculations.

At Question 7: "If you would decide to use silk cocoons as raw material, what handicrafts could be created in your opinion?", 80% of designers answered that they would prefer to create decorative pictures and fabrics of various textures, 70%

would create woven belts, 50% would prefer to design knitted belts, 46.6% would like to create necklaces, 33.3% would create floral brooches, and 16% multifunctional bags (Table 2). It was noticed the preference of some designers to create specific products.

Table 2 Observed values regarding handicrafts that designers would prefer to create of silk cocoons

Answer variant	No.of respondents	Share (%)
Colored necklaces	14	46.6
Floral brooches	10	33.3
Woven belts	21	70.0
Knitted belts	15	50.0
Decorative pictures	24	80.0
Fabrics of various textures	24	80.0
Multifunctional bags	5	16.6

Source:Questionnaires. Own calculations.

At Question 8: "If you were in the position of buyers, what handicrafts made of silk cocoons would you prefer to purchase?", 40% of respondents mentioned decorative pictures,

36.6% floral brooches, 30% necklaces and knitted belts, 20% woven belts, 10% fabrics of various textures (Table 3).

Table 3 Observed values concerning designers' preference to buy handicrafts made of cocoons

Answer variant	No.of respondents	Share (%)
Colored necklaces	9	30.0
Floral brooches	11	36.6
Woven belts	6	20.0
Knitted belts	9	30.0
Decorative pictures	12	40.0
Fabrics of various textures	3	10.0
Multifunctional bags	2	6.66

Source:Questionnaires. Own calculations.

At Question 9: "Which is the reason you would prefer to buy handicrafts made of silk cocoons?", 93.3% of the interviewed persons answered that their reason is the „unique design”, 83.3% mentioned „beauty”, 33.3% specified „uniqueness”, 26.6% said „color” and 16.6% mentioned „natural aspect” (Table 4).

At Question 10: "Which is your opinion regarding the importance of design, color, production cost and utility for each handicraft made of silk cocoon?", the answers given by the interviewed designers are given in Table 5.

Table 4 Observed values concerning reasons why designers would prefer to buy handicrafts made of silk cocoons

Answer variant	No.of respondents	Share (%)
Design	28	93.3
Color	8	26.6
Beauty	25	83.3
Uniqueness	10	33.3
Natural aspect	5	16.6

Source:Questionnaires. Own calculations.

Table 5 Average points given by designers to each handicraft characteristics (Fishbein-Rosenberg Model)

Characteristic	Color necklace	Floral brooch	Woven belts	Kintted belts	Decoration picture	Fabrics of various texture	Multi functional bags	Sum
Design	7.75	7.77	7.93	8.00	8.20	7.90	7.80	55.35
Color	8.50	8.40	8.00	7.90	8.30	8.20	8.10	57.40
Utility for client	7.80	7.90	8.00	8.00	7.70	8.20	8.10	55.70
Production cost	7.90	7.70	8.00	8.00	8.30	8.20	8.10	56.20

Source:Own calculations.

The average points given to each characteristic based on its importance in designers' opinion in terms of a scale from 1 to 10 were: a) design 9.8, b) color 8.5, c) utility for client 8.4 and production cost 9.4, total points 36.1.

The average points given to each characteristic for each handicraft made of

silk cocoons in designers' opinion in terms of a scale from 1 to 10 are presented in Table 5.

The normalization of the results obtained from the questionnaire administration according to Rosenberg method in order to establish the rank of each handicraft in designers' opinion is presented in Table 6.

Table 6 Normalization of results according to Rosenberg method

Handicraft characteristic	Coefficient of importance	Sum	Normalized results for the importance of each characteristic W_i
Design	9.8	361	0.271
Color	8.5	36.1	0.236
Utility for client	8.4	36.1	0.233
Production cost	9.4	36.1	0.260
Sum	36.1	-	1.000

Source:Own calculations.

The distribution of designers' opinion on the 7 handicrafts on a scale 1 to 0 imposed to divide the averages presented in Table 10 by 10. The obtained results after making the calculations are presented in Table 7.

The global opinion for each handicraft made of silk cocoons resulted from the calculations presented in Table 8.

The global opinion of the interviewed designers on the importance of each characteristic taken into account (design, color, utility for client and production cost)

for each handicraft made of silk cocoons allowed to establish the hierarchy of handicrafts. Their order of importance based on these criteria is: 1 decoration picture, 2 colored necklace, 2 woven belt, 2 knitted belt, 3 fabrics of various texture, 4 floral brooch and 5 multifunctional bag.

As one can see the differences regarding the importance of various characteristics is very small among handicrafts and even three of them come on the same position.

Table 7 Designers' opinion on each handicraft made of silk cocoons

Characteristic	W_i	Color necklace	Floral brooch	Woven belts	Kintted belts	Decoration picture	Fabrics of various textures	Multi functional bags
Design	0.271	0.775	0.777	0.793	0.800	0.820	0.790	0.780
Color	0.236	0.850	0.840	0.800	0.790	0.830	0.820	0.810
Utility for client	0.233	0.780	0.790	0.800	0.800	0.770	0.820	0.810
Production cost	0.260	0.790	0.770	0.800	0.800	0.830	0.820	0.810

Source:Own calculations.

Table 8 Rank of each handicraft based on designers' global opinion

Handicraft	Calculations	Importance coefficient	Rank
Colored necklace	$0.775 \times 0.271 + 0.850 \times 0.236 + 0.780 \times 0.233 + 0.790 \times 0.260$	0.796	2
Floral brooch	$0.777 \times 0.271 + 0.840 \times 0.236 + 0.790 \times 0.233 + 0.770 \times 0.260$	0.792	4
Woven belt	$0.793 \times 0.271 + 0.800 \times 0.236 + 0.800 \times 0.233 + 0.800 \times 0.260$	0.796	2
Kintted belt	$0.800 \times 0.271 + 0.790 \times 0.236 + 0.800 \times 0.233 + 0.800 \times 0.260$	0.796	2
Decoration picture	$0.820 \times 0.271 + 0.830 \times 0.236 + 0.770 \times 0.236 + 0.830 \times 0.260$	0.813	1
Fabrics of various texture	$0.790 \times 0.271 + 0.820 \times 0.236 + 0.820 \times 0.236 + 0.820 \times 0.236$	0.793	3
Multifunctional bag	$0.780 \times 0.271 + 0.810 \times 0.236 + 0.810 \times 0.236 + 0.810 \times 0.236$	0.784	5

Source:Own calculations.

Even thou one can normalize the importance coefficients, the handicraft hierarchy will remain the same and the differences will remain very small as well.

CONCLUSIONS

Silk cocoons can be used as raw material for producing handicrafts. The interviewed designers considered that the products which could be created of silk cocoons are of two categories: products of decorative art and handicrafts.

These new products are valuable because they have an unique design, originality, beauty, and their creation involves designer's creativity, imagination and ability.

Their value and beauty depend on the ingredients used to give color, fixing and assembly.

In the decreasing order of importance, the interviewed designers considered that the main products which could be made of silk cocoons are: decorative pictures, necklaces, woven and and knitted belts, fabrics of

various textures, floral brooches and multifunctional bags.

As a conclusion, under the decline of silk cocoon market, silk cocoon processing in the farm is an alternative of production diversification, for creating high value added products and increase sericulturist's income and profit.

Romanian handicrafts are very nice and preferred to be bought both by Romanians and foreign visitors, therefore handicrafts made of silk cocoons could be successfully produced and marketed.

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