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Modernized designs in exporting carpets

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Abstract
This paper aims to examine the exporting carpet designs in carpet industry. The survey method was opted for this study. A structured questionnaire, containing both close and open ended questions was used for data collection. 30 carpet firms of Bhadohi District of Uttar Pradesh registered with district industries Centre were surveyed. Findings of the present study show that modern designs gave access to new markets and increased demand of products. Carpet design is one of the different ways to decorate a room, for which stylized and abstract design is too much famous among the foreign countries. Stylized designs can be easily made into carpet. Carpet industry is a small scale industry. Abstract and stylized designs with erase effect are appealing and expensive in comparison to normal designed carpets.

Keywords: Carpet designs, stylized design, carpet industry

1. Introduction

Carpet has been used as ornamental and functional design element for thousands of years. Goats and sheep were sheared for their hair and wool which was spun and woven for rugs some 8,000-6,000 years BC. Carpet has been an integral part of human life for millennia. India has around 35% share of the world markets for handmade carpets and floor coverings out of which India's exports to US accounts for about 39.25% of total exports. The Mirzapur - Bhadohi region accounts for about 85 per cent of Indian carpet exports. This region is often known as the 'carpet-belt' since the carpet industry is the main industry.

Carpet designs usually consist of an inner field, the pattern in the center of the carpet and a border. The latter serves, like the cornice on a building or the frame on a picture, to emphasize the limits and isolate the fields. The design of inner field and border must harmonize pleasingly, yet remain distinct.

2. Methodology

Bhadhoi, a district in Uttar Pradesh was selected for the study as it is one of the important carpet weaving centers of India. 30 carpet manufacturing units, which export carpets in foreign markets, were selected for the study. Different problems encountered by the manufacturers concerning raw materials, manufacturing and availability of skilled employees were studied through observation and questionnaire-cum-interview method by the investigator.

The data collected were analyzed through a simple master chart to obtain the results of the study. The frequency, percentage and completely randomized design test were worked out.

15 designs were developed during the course of the study and were judged by a panel of judges on different criteria such as selection of design, color combination, suitability of design and overall appearance of design. On the basis of the evaluation top 4 best designs were selected for wall décor carpets.

2.1. Colour and Design

Colours should be specified and matched in an agreed light source to an agreed tolerance. The design will be specified, for example, plain; Berber; pattern; heather; stipple and sisal.

2.2. Designing

Designing of carpets can be done on computer by using Ned graphics and autotex carpet designing software.

Ned Graphics is one among the many carpet design programs that caters to every aspect of making fine carpets. It has a huge database of customizable patterns that can be applied to any carpet design. This application options is used in making unique designs which are endless.

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Fruits of fig cultivar Poona were procured from Indian Institute of Horticulture Research (IIHR), Bengaluru and cultivar Bellary were brought from farmers field at Serigeri

Designing in computer can be done by two types:
a) Computerized
b) Scanned (Editing)

2.3. Short Keys

a)	Shift + P	=	Selection Paste
b)	Press I	=	Image Information
c)	Press F8	=	Graph View
d)	Press O	=	Bezier tool
e)	Delete + Left click + Plus	=	Hook insert
f)	Delete + Right click + Minus	=	Hook delete

2.4. Design execution
Transferring the design is done in various ways. Design can be transferred to the carpet directly from the mind and hand of the weaver or indirectly from a pattern drawn on paper. Using the latter technique, a carpet was executed directly from the pattern, or the design can be transferred first to a cartoon. The cartoon is a full-size paper drawing that was squared, each square representing one knot of a particular color. The weaver places this upon the loom and translates the design directly onto the carpet.

2.5. Manufacturing Process
The manufacturing process includes key areas including:
1. Raw materials in fiber and or yarn form, dyes, chemicals, auxiliaries and ancillary materials;
2. Knotting or weaving or tufting;
3. Dyeing of yarn (wool, silk, etc.) in shades meeting design/naksha.
4. Washing of carpets followed by drying;
5. Finishing including trimming, stretching, embossing, fringe knotting, etc.

3. Results and Discussion
This results and discussion deals in detail with the results obtained from the data collected from the carpet units in Bhadhoi and the relevant discussions thereof.
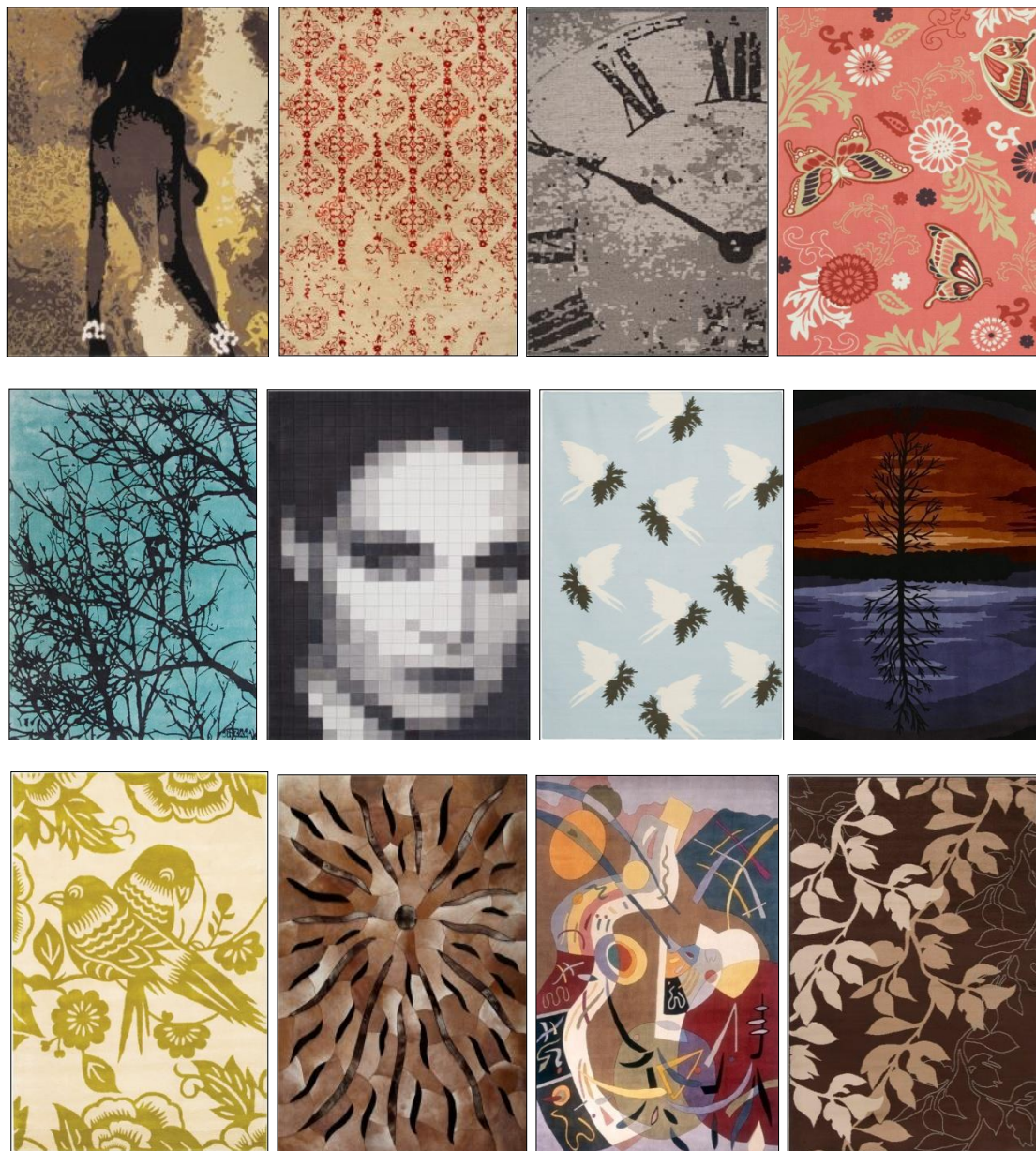
From the inspiration of these following collected modernized designs which include stylized and abstract patterns, fifteen new designs were developed.

1. Autumn Scene

2. Birds on Wire

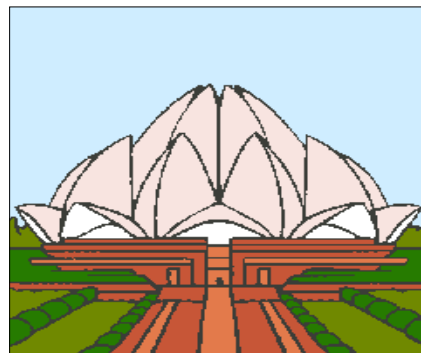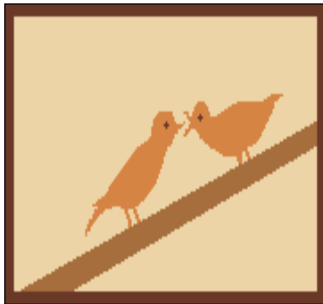**3. Friends Forever**

4. Bridal Leaves

5. Fantasy

6. Japanese Sunset

7. Lord Ganesha

8. Lord Krishna

9. Lotus Temple

10. Motherhood

11. Enthusiasm

12. Cheerful

13. Relaxing Girl

14. Spiral Leaves

15. Tik Tik

3.1 Description of fifteen developed designs

During the survey of exporting carpets of Bhadhoi some designs adopted by the carpet units were studied. It was observed that in foreign markets all types of designs especially abstract and stylized designs are preferred. On the basis of those collected designs fifteen new designs were developed.

Table 1: Fifteen developed designs are described here according to their rank.

S. No	Design Name	Select-ion of Design	Color Comb-ination	Suitab-ility of Design	Overall Appea-rance	Total of Mean	CD at 5%	Rank
1.	Autumn Scene	3.13	2.75	3.13	3.38	12.38	0.13	V
2.	Birds On Wire	3.00	2.50	3.25	3.38	12.13	0.10	VI
3.	Friends Forever	3.75	3.13	3.63	3.50	14.00	0.19	I
4.	Bridal Leaves	2.63	2.25	3.13	3.13	11.13	0.17	VIII
5.	Fantasy	3.50	3.13	3.50	3.38	13.50	0.23	II
6.	Japanese Sunset	2.5	2.5	2.25	2.25	9.50	0.13	XIII
7.	Lord Ganesha	2.88	2.50	2.63	2.38	10.38	0.23	XI
8.	Lord Krishna	3.5	3.00	3.50	3.38	13.38	0.25	III
9.	Lotus Temple	3.13	2.68	3.38	3.00	12.13	0.19	VI
10.	Motherhood	3.00	2.63	3.25	2.88	11.75	0.15	VII
11.	Enthusiasm	2.88	2.38	2.75	2.63	10.63	0.37	X
12.	Cheerful	2.50	2.63	2.63	2.25	10.00	0.43	XII
13.	Relaxing Girl	3.50	2.88	3.50	3.38	13.25	0.27	IV
14.	Spiral Leaves	2.63	2.75	2.88	2.50	10.75	0.26	IX
15.	Tik Tik	2.38	2.75	2.88	2.38	10.38	0.19	XI

All the fifteen developed designs were ranked according to their preference regarding the selection of design, color combination, suitability of design and overall appearance of design. Marks 1, 2, 3 and 4 were given to poor, fair, good and excellent respectively. 1 to 14 rank were given to fifteen developed designs, design number 2 (Birds on Wire) and 9 (Lotus Temple) having the same 6th rank due to same total of their mean.
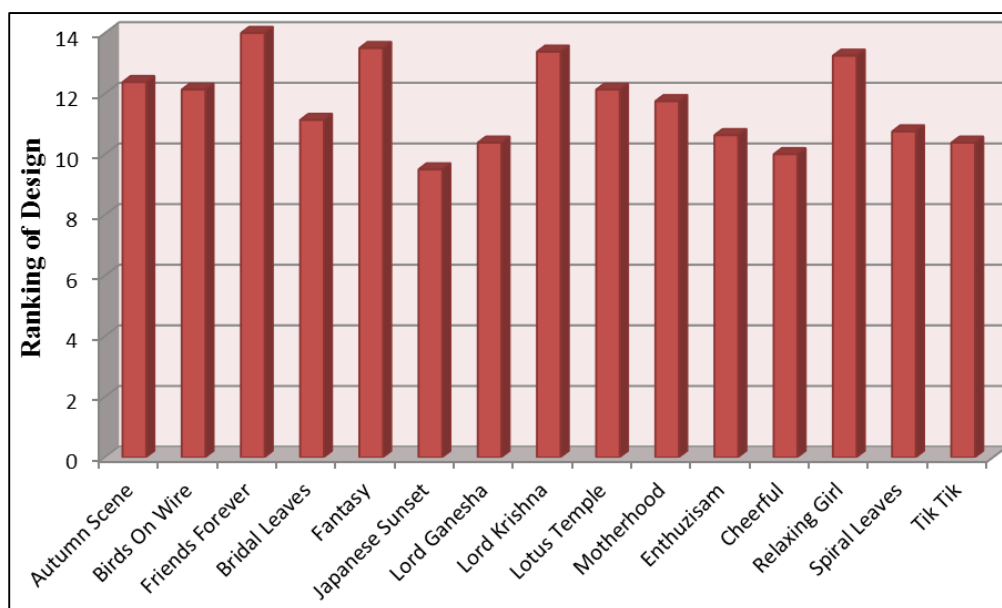
Fig 1: Description of fifteen developed designs

4. Conclusion

The study revealed that the raw materials used for carpet making were wool, silk and cotton. Cotton was used for warp and weft while wool and silk were used to make the pile of the carpet.

Modernized designs in carpets are in highly demand in foreign countries. These designs include stylized and abstract motifs with erase effect. Erase effect increase the appearance and value of the carpet. Erase effect also gives a little bit 3D effect to the carpet.

5. Recommendation

- Bring the newer technology for the Indian Carpet Industry.
- Understand the need to change the traditional style as per the need of international customer to enhance our export.
- Identify the new technology, tools and techniques for the mass production of quality products.

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