







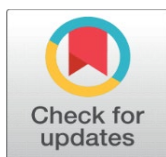
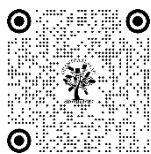
DESIGN DEVELOPMENT AND DIGITAL PRINTING OF HOME FURNISHING ARTICLES USING “AQUATIC MOTIFS”

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ABSTRACT

Textile designing is the most demanding and emerging field as it is full of scope and creativity but many individuals become quite lost when confronted with the task of finding “inspiration” any objects or thing we see in our daily routine are possible design sources. The sources of inspiration play a powerful role in the beginning of the design process and research and strategic collection planning. This study investigated the use of aquatic motifs on home furnishing items using digital printing, exploring their potential for product diversification and consumer acceptance. Fifteen captivating designs featuring aquatic themes were created for bed sheets, table covers with mats, and cushion covers using two designing software Corel Draw and Adobe Photoshop. A panel of thirty judges including renowned local designers and discerning boutique owners evaluated the developed designs for the selection of two most enthralling designs from each category for application on textiles in order to prepare home furnishing articles. Their enthusiastic response highlights the positive reception of the aquatic motifs. It concludes that use of aquatic motifs on home furnishing items using digital printing has paved the way for wide new world of product diversification in the home furnishing market.

Keywords: Aquatic Motifs, Home Furnishing, Product Diversification, Design Acceptance, Local Designers, Boutiques

1. INTRODUCTION

The word “designing” refers to the total compositions of the line, form, colours, shapes, and textures in a decorative manner. These elements of design appear in the textile that we use for person or household purpose. Design can either be structural or decorative. Many printing techniques like block, roller rotatory and flat bed

screen printing have some limitations as they rely upon the engraving of design first on the blocks, rollers and screens respectively and then transfer of print takes place that make it expensive and time-consuming process. The digital printing offers large cost reduction for connectors and printers, enhances new products choices and made it possible to meet the fast changing demand of fashion world just in time [Sharma et al. \(2014\)](#). A theme-based design developed by adapting aquatic motifs would contribute to the innovation in design. CAD allows you to go straight from the initial idea to a visual representation of the fabric showing different kinds of designs and color combinations. CAD has improved the quality and flexibility of design development, increased efficiency, and shortened the time from design concept to actual commercialization [Sharma \(2016\)](#). An attempt was made to adapt the aquatic motifs for designing and development of designs for home furnishing items. Adaptation of aquatic motifs on various home furnishing products could occupy a good place in the field of textile designing as it open new avenues for the designers in order to fulfill the ever changing demands of consumers.

2. METHODOLOGY

Various aquatic motifs were collected from the available literature and internet out of which suitable motifs were adapted for the development of designs. A total fifteen designs, five each for selected categories of home furnishing items which included bedsheets, table covers with mats and cushion covers were prepared with the help of “corel draw” and “adobe photoshop”. Prepared designs were evaluated visually by a panel of thirty judges including renowned local designers and discerning boutique owners evaluated the developed designs on the basis of parameters of evaluation including arrangement of motifs, appropriateness of design, color combination and overall appearance. A five point ranking performa, developed by [Premlata \(1991\)](#) was used for this purpose and the designs were scored as 1, 2, 3, 4, 5 corresponding to poor, fair, good, very good and excellent respectively [Premlata \(1991\)](#). On the basis of the results two best designs were selected from each category of home furnishing items for final production using digital printing technique. All the prepared products were further evaluated by the same panel of Judges to assess the acceptability of the prepared products using five point ranking performa. The parameters for evaluation were colour combination, suitability of design for end products, clarity of design and overall appearances.

3. ANALYSIS OF DATA

The data collected through the evaluation and acceptability of products for reserch study were coded and analyzed using average mean.

Average mean:

$$X = \frac{\text{Sum of the terms}}{\text{Number of terms}}$$

4. RESULTS AND DISCUSSION

This chapter presents the culmination of the study, revealing results derived from experimental work and subsequent discussions for an in-depth interpretation. The success of the aquatic motif designs extends beyond aesthetics to practical considerations, as reflected in the specific dimensions of the home furnishing items. The sizes of the prepared products for each category were as follows:

Bedsheet: 160 cm x 210 cm,

Cushion Covers: 16 inches x 16 inches

Table Cover with mats: Table Cover: 48 inches x 28 inches Coaster: 4 inches x 4 inches

Considering these sizes in the discussion allows for a holistic assessment of the designs, taking into account not only their visual appeal but also their applicability to everyday use. The structured presentation includes subjective analysis and tabulated data. Results are categorized under the following subheadings:

4.1. DEVELOPED DESIGNS

The inclusion of visual representations, as presented in [Plate 1](#), [Plate 2](#), [Plate 3](#), adds a dynamic dimension to the study by offering a tangible view of the developed designs. This visual component not only enhances the reader's understanding but also serves as a reference point for the subsequent discussions. Each plate corresponds to a specific category of home furnishing items, showcasing five distinct designs for bed sheets, cushion covers, and table covers with mats.

Plate 1



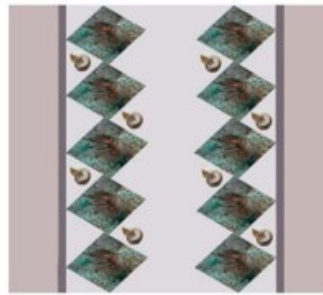
B1



B2



B3



B4



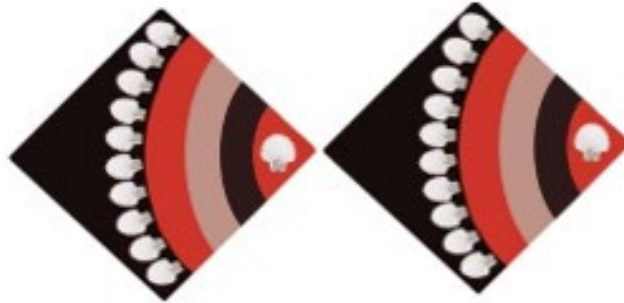
B5

Plate 1 Developed Designs of Bed Sheets

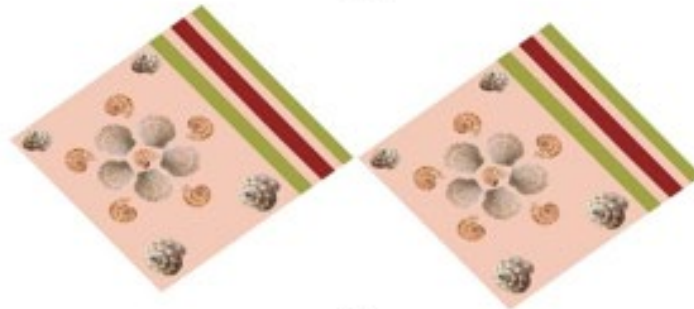
Plate 2



C1



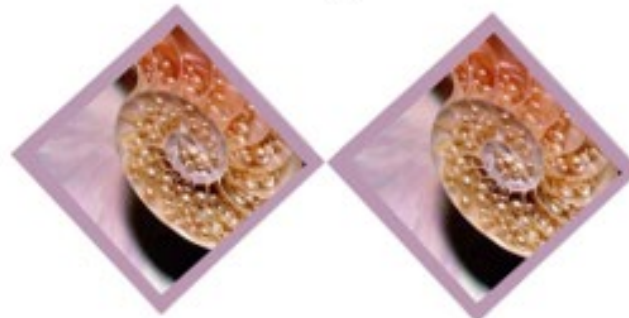
C2



C3



C4



C5

Plate 2 Developed Designs of Cushion Covers

Plate 3



T1



T2



T3



T4



T5

Plate 3 Developed Designs of Table Covers with Mats

4.2. SCORES OBTAINED ON VISUAL EVALUATION

The incorporation of scores obtained from the visual evaluation by thirty judges is a crucial aspect of the study, providing quantitative insights into the perceived quality and appeal of the developed designs. [Table 1](#), [Table 2](#), [Table 3](#) serve as repositories for this valuable data, offering a structured presentation of the judges' assessments across the fifteen designs for bed sheets, cushion covers, and table covers with mats.

Table 1

Table 1 Average Scores of Visual Evaluations for Bed Sheets					
Design No.	Arrangement of motif	Appropriateness of designs	Colour combination	Overall appearance	Average scores
B1	3.4	3.2	3.28	3.1	3.24
B2	3.87	2.85	2.92	3.7	3.33
B3	4.89	4.79	4.97	4.85	4.87*
B4	4.49	4.59	4.6	4.9	4.64*
B5	3.31	2.42	4.4	3.8	3.48

*selected designs

Among the prepared bed sheet designs, highest score was given to B3 (4.87). The main factor contributing to highest score was colour combination. Design B4 ranked second with score of 4.64. Table clearly indicates that B3 and B4 were highly appreciated due to arrangement of motifs, colour combination and overall appearance. (Figure 1)

Table 2

Table 2 Average Scores of Visual Evaluation for Cushion Covers					
Design No.	Arrangement of motif	Appropriateness of designs	Colour combination	Overall appearance	Average scores
C1	2.89	2.7	3.1	3.5	3.04
C2	3.2	3.5	3.1	3.2	3.25
C3	2.1	2.5	2.27	2.27	2.28
C4	4.97	4.66	4.98	4.98	4.89*
C5	4.74	4.97	4.68	4.23	4.65*

*selected designs

In the prepared cushion cover designs, maximum score (4.89) was given to design no. C4. Design C5 got second rank with total score of 4.65. The above table displays that C4 was highly appreciated due to colour combination and overall appearance, while C5 was appreciated due to arrangement of motifs and appropriateness of motifs. (Figure 2)

Table 3

Table 3 Average Scores of Visual Evaluation for Table Covers with Mats					
Design No.	Arrangement of motif	Appropriateness of designs	Colour combination	Overall appearance	Average scores
T1	3.54	3.98	4.6	3.57	3.92
T2	4.81	4.98	4.76	4.98	4.88*
T3	3.76	3.91	3.81	3.32	3.7
T4	2.3	3.2	2.58	2.7	2.69
T5	4.97	4.54	4.87	4.32	4.68*

*selected designs

Among the prepared table mats with coaster designs highest score was given to T2 (4.88), T5 ranked second (4.68). Table clearly indicates that T2 and T5 were

highly appreciated due to arrangement of motifs, colour combinations and overall appearance. (Figure 3)

Figure 1

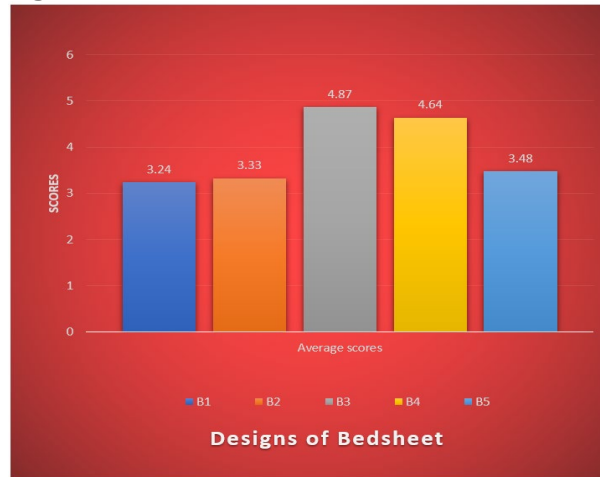


Figure 1 Scores Obtained for Developed Designs of Bed Sheets

Figure 2

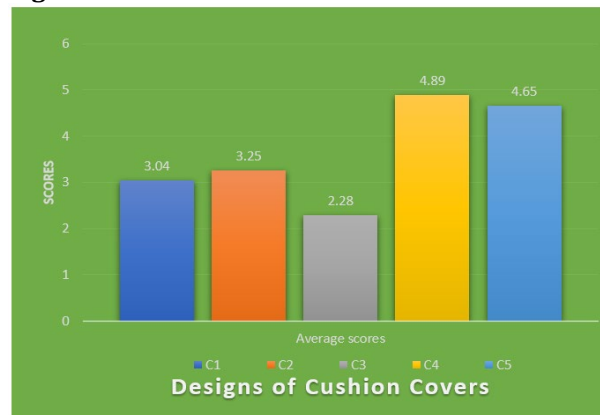


Figure 2 Scores Obtained for Developed Designs of Cushion Covers

Figure 3

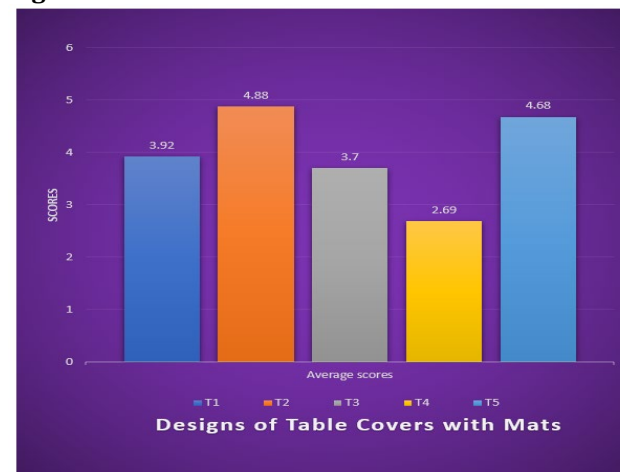


Figure 3 Scores Obtained for Developed Designs of Table Covers with Mats

4.3. DEVELOPED HOME FURNISHING PRODUCTS

The visual impact of the aquatic motifs is further accentuated by the unique characteristics of each fabric type. The examination of [Plate 4](#) will allow for an analysis of how fabric selection influences the overall appeal and tactile experience of the home furnishing items. This plate presents a comprehensive display of the most preferred designs for bed sheets, cushion covers, and table covers with mats, each crafted from cotton, cotton silk, chiffon, and khaddar casement fabrics.

Plate 4



B3 (article 1)



B4 (article 2)



C4 (article 1)



C5(article 2)



T2 (article 1)



T5(article 2)

Plate 4 Developed Products of Home Furnishing Item

4.4. ACCEPTABILITY OF DEVELOPED HOME FURNISHING PRODUCTS

The data presented in [Table 4](#) forms a pivotal component of the study, enabling a detailed analysis of the overall reception of the home furnishing products. In subsequent discussions, these acceptability scores will be examined and interpreted, contributing to a comprehensive understanding of the impact of fabric types on the perceived value and desirability of the designs.

Table 4

Table 4 Acceptability Scores of the Developed Home Furnishing Items							
Articles	Items	Colour combination	Neatness	Overall appearance	Acceptability score	Rank within category	Overall Rank
Bedsheet	Article 1 (B3)	5	5	5	5	I	I
	Article 2 (B4)	4.2	3.6	3.86	3.75	II	V
Cushion covers	Article 1 (C4)	4.2	5	4.32	4.47	I	III
	Article 2 (C5)	3.54	4.32	3.74	3.92	II	IV
Table covers with mats	Article 1 (T2)	3.62	3.91	3.43	3.64	II	VI
	Article 2 (T5)	4.76	4.97	4.62	4.83	I	II

A thorough evaluation of all home furnishing items revealed bed sheet B3 as the clear champion, captivating the judges with its unique design and scoring a perfect 5. Close behind was table cover with mats T5, earning a well-deserved 4.83 for its eye-catching contrast. On the other hand, article T2 received the lowest score (3.64), indicating room for improvement in its design elements.

This analysis suggests that the judges prioritized creativity, visual appeal, and functionality while evaluating the articles. B3's underwater theme likely offered a refreshing and innovative aesthetic, while T5's contrasting color combination resonated with the judges' preferences. T2, however, might have fallen short in these aspects, necessitating further refinement in its design approach.

5. CONCLUSION

The aquatic motifs were successfully adapted for designing the home furnishing items using digital printing. All prepared products were highly appreciated and well accepted with regards to visual evaluation. Among the home furnishing item, multi colour printed bedsheet, orange and brown colour printed cushion cover was highly appreciated and accepted. Aquatic themes hold great potential to revolutionize home furnishing design. Their versatility and inherent beauty offer designers exciting avenues to fulfill evolving consumer demands.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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