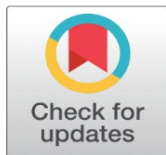
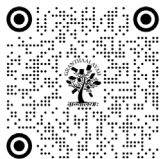


DESIGN ATTRIBUTE PREFERENCES FOR SANTINIKETAN LEATHER BAGS

Sanjib Kumar Das¹  , Dushyant Dave²  

^{1,2} Department of Design, Banasthali University, Rajasthan, India



ABSTRACT

As a consequence of the retail-globalization through e-commerce platforms and social media, both domestic & international market opportunities have widened many folds for the Santiniketan Leather Bags, but at the same time the market have become intensely competitive with customers having a wide range of options. It is evident that in a highly competitive market, consumer focused product design is considered as a key competitive edge. This research aims to establish the relationship between product design and consumer preferences of Santiniketan leather bags based on various design attributes like silhouette, size, colour, function, and features. The study was conducted in two steps with the first step was to classify the design attributes based on existing product trends and demand collected from diverse sources like retailers, designers, artists, and manufacturers. Designs of the bags were thereafter sectioned into several benchmarking factors based on various attributes of design and variants of the same. In the second step, a descriptive cross-sectional consumer survey was performed to understand the consumer's criteria of preferences. The outcome of the survey indicates clear inadequacy in the present design compositions of Santiniketan leather bags in the context of design trend and consumer preferences. The study concluded with proposing a preferential matrix for the stakeholders to design new bags meeting customers' perception. This study is the first of its kind to explore consumer preferences for new product development in Santiniketan leather bags.

Keywords: Handicrafts, Product Design, Design Attributes, Consumer Preference, New Product Development

Received 15 May 2023

Accepted 26 August 2023

Published 02 September 2023

Corresponding Author

Sanjib Kumar Das, sanjib.das@nift.ac.in

DOI

[10.29121/shodhkosh.v4.i2SE.2023.490](https://doi.org/10.29121/shodhkosh.v4.i2SE.2023.490)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Copyright: © 2023 The Author(s). This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/).

With the license CC-BY, authors retain the copyright, allowing anyone to download, reuse, re-print, modify, distribute, and/or copy their contribution. The work must be properly attributed to its author.



1. INTRODUCTION

Globalization has produced immense opportunities for Indian crafts to expand its recognition in the international market. At the same time with customers having a broad preference, the present market has become intensely competitive. The consumer-centric product design is considered as key competitive edge. In contrast, it appears that most of the handicraft products of India are driven by artistic expressions or independent market interpretation. Design attributes are parameters based on which the conceptual structure of the product is built. The key aspect of the design attributes is to define design goals, features, limitations and performance of the product. Santiniketan leather handicraft is known for its colourful ethnic styling. Santiniketan leather crafts were previously crafted entirely

using hand and some basic tools. Nowadays some simple machines are used and the craft process has not yet been modernized. Tools used in making of the crafts are brush, hammer, ball press machine, glass paperweight, or glazing machine, scissors, mouth spray, and dyes. Figure 1 illustrates the manufacturing process of the Santiniketan Leather Bags.

Figure 1

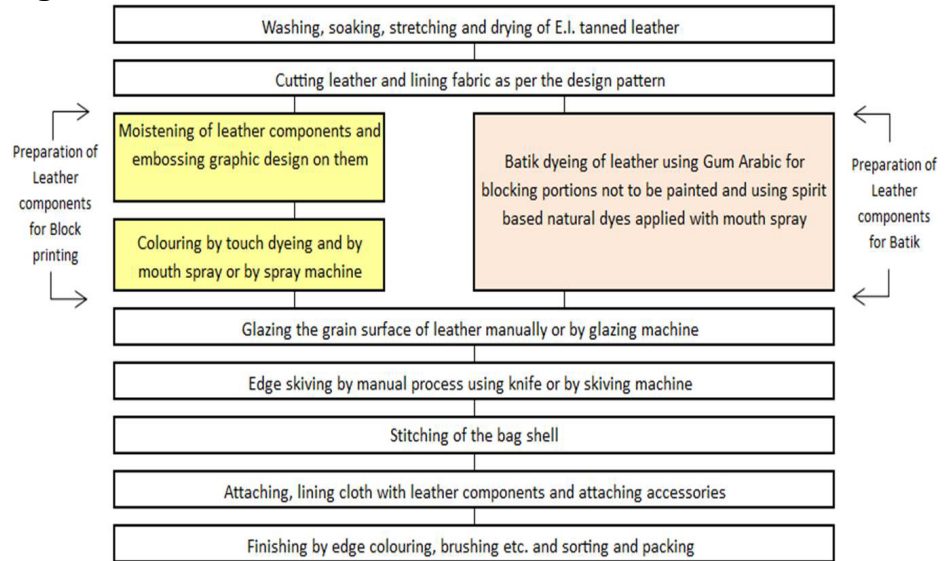


Figure 1 Manufacturing Process for Santiniketan Leather Bags.

Source: Illustrated by Authors from Field Survey.

Traditionally the most appealing feature of the Santiniketan Leather bags is the colourful artistic motifs inspired by the Alpona work, flower and animal motifs or mythological stories. In the recent times, geometric motifs and patterns are popular choice of the customers and widely practiced through the application of Batik & Block printing. The style range of the bags includes large to medium sized handbags, shoppers, messenger bags, duffle bags and a variety of small purses.

Figure 2



Figure 2 Various Designs of Santiniketan Leather Bags.

Source: All Images are Taken by the Authors at Amar Kutir Society, Santiniketan.

While this craft is popular and artistically recognized, the growth of this craft is limited in domestic and international markets due to insufficient product innovation and limited designs. In this study we established the relationship between product design and consumer preferences based on various design attributes. Further a customer preferential matrix is created to help design new bags meeting customers' perception.

2. LITERATURE REVIEW

















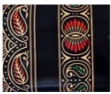



























Handicraft industry of India is a highly labour intensive and has largely contributed to employment in rural India. According to a United Nations report, there has been a 30% reduction in the total number of artisans over past 30 years [Bissel \(2013\)](#). Many artisans lack ability to sustain new market challenges and hence are forced to switch to unskilled employment in urban industries [Kapur and Mittar \(2014\)](#). In contrast to the diverse styles that have emerged in the present market, continued usage of the age-old motifs and other design forms by the local artisans contributed significantly in decline of demand. 66% of urban youth in the age group 18-25 years find these designs boring and outdated [Raviprakash et al. \(2019\)](#). In a report on National Handicrafts Policy, All India Artisans and Craft workers Welfare Association stated that artisans "must build genuine, modern, and evolving hand crafted products that are relevant in the market" [All India Artisans and Craftworkers Welfare Association. \(2017\)](#).

In order to revive the economy of the handicrafts and retain employment in the Indian handicraft industry, it is imperative to adapt contemporary trends of the global marketplace keeping suitable balance with traditional practices. Product design has a greater effect on our everyday lives [Creusen and Schoormans \(2005\)](#). In product design creative thinking enables to apply imagination to generate ideas, experiment and evaluate ideas, products and processes [Kampylis and Berki \(2014\)](#). At the initial stage of design process, several design alternatives are generated, to determine which one to pursue for further development [Eppinger and Ulrich \(1995\)](#). Design in its physical form is one of the important factors for a product to be a success in the market. In a cluttered marketplace, a product form helps to acquire consumer attention [Truong et al. \(2014\)](#). The product form or its exterior appearance is important and provides an initial impression to conclude other product attributes similar to prices [Tian et al. \(2001\)](#). In order to create a cultural value, handcrafted items depend heavily on design attributes like motifs, patterns, and colour [Luchs and Swan \(2011\)](#). Thus it is necessary to explore, identify and use the key attributes and its dimensions to create a new product to meet the needs and expectations of the consumers [Song et al. \(2015\)](#).

3. METHODOLOGY

This study was conducted in two steps with the first step was to classify the design attributes based on information that customers evaluate while purchasing a product. Design attributes of the bags were thereafter sectioned into several benchmarking factors based on demand, availability and trends. [Figure 3](#) illustrates the benchmark of Design attributes derived from the Field visits, books, magazines, and websites dealing with Santiniketan bags. In the second step, a descriptive cross-sectional consumer survey was performed to understand the consumer's preferences. The authors produced a well-structured illustrative questionnaire related to the design attributes of Santiniketan leather bags.

Figure 3

		VARIANTS						
		Tote	Hobo	Duffle	Baguette	Messenger	Saddle	Bowling
Bag type								
		Small	Medium	Large				
Bag size								
		Trapezoid	Rectangular	Circular	Square	Abstract		
Bag silhouette								
		Red	Black	Green	Blue	Multicolour (two or more)		
Bag colour								
		Strap handle	Cut out	Rolled handle	Rope with loop	Handle with metal ring	Handle with adjustable buckle	
Bag handle								
		Open top	Top zip	Magnet snap	Flap with snap	Tab with snap	Down zip	Flap with lock
Bag closure								
		Alpona	Floral abstract	Animal abstract	Geometric abstract pattern	Mythological/epic stories		
Art inspiration & motifs								
		Simple	Medium	Complex				
Bag complexity								
		Block printing only	Batik only	Combination of block print and batik				
Bag material & finish								

DESIGN ATTRIBUTES

Figure 3 Benchmark of Design Attributes for Santiniketan Leather Bags.

Source: All Images Photographed and Illustrated by Authors.

Further, a field survey was done among a total of 60 women participants who are users of Leather handbags. The participants were asked to evaluate the design attributes on a five-point scale where '1' marked the least preferred and '5' scored the most preferred. A weighted mean score method is used to determine the desired design attributes of Santiniketan leather bags.

4. RESULTS AND DISCUSSION

4.1. SAMPLE CHARACTERISTICS

The study focused on women perception of Indian and foreign origin who are users of the handbags and are aware of Santiniketan style of bags. The sample characteristics are presented in [Table 1](#).

Table 1

Table 1 Characteristics of Consumer Participants.		
Variables	Frequencies	Percentage (%)
Type of Consumer		
Domestic	55	91.67
International	5	8.33
Age		
20-29	30	50.00
30-39	13	21.66
40-49	10	16.66
>50	7	11.66
Occupation		
Student	17	28.33
Self-employed	4	6.67
Service	23	38.33
Retired	3	5.00
Housewife	13	21.67
Monthly Family Income		
< ₹ 20,000	2	3.33
₹ 20,001 – ₹ 40,000	8	13.33
₹ 40,001 – ₹ 60,000	4	6.67
₹ 60,001 – ₹ 80,000	14	23.33
₹ 80,001 – ₹ 100,000	18	30.00
> ₹ 100,000	14	23.33

Source Primary data

4.2. ASSESSMENT OF CONSUMER PREFERENCE BASED ON DESIGN ATTRIBUTES

Consumer choice for a particular product is a subjective characteristic. Preference of design attributes available in a product is affected by psychological consideration and physiological experience. Visual analysis is a significant component in the assessment of any products by the customers. Also, consumer acceptability at the product development stage is necessary to give direction for mass production. From the data collected from the respondents regarding their preference of various design attributes, weighted means score was calculated to quantify each variants of design attributes. Based on the total calculated results, the attribute ranking was done to mark the preferences represented in [Table 2](#) section wise.

Table 2

Table 2 Preferential Ranking of Attributes for Santiniketan Bag.								
A	Bag type	1	2	3	4	5	Weight	Ranks
	Tote	6	10	12	9	23	213	II
	Hobo	7	13	14	13	13	192	III
	Duffle	23	17	11	9	0	126	VII
	Baguette	12	12	14	12	10	176	V
	Messenger	9	10	14	16	11	190	IV
	Saddle	12	12	15	12	9	174	VI
	Bowling	1	7	10	12	30	243	I
B	Bag size	1	2	3	4	5	Weight	Ranks
	Small	27	16	6	4	7	128	III
	Medium	6	8	7	21	18	217	I
	Large	7	10	12	13	18	205	II
C	Bag silhouette	1	2	3	4	5	Weight	Ranks
	Trapezoid	2	4	2	14	38	262	I
	Rectangular	3	4	3	8	42	262	I
	Circular	12	12	14	12	10	176	IV
	Square	9	10	14	11	16	195	III
	Abstract	25	8	12	7	8	145	V
D	Bag colour	1	2	3	4	5	Weight	Ranks
	Red	15	11	14	12	8	167	III
	Black	7	17	14	12	10	181	II
	Green	49	0	5	3	3	91	V
	Blue	17	10	14	8	11	166	IV
	Multi-colour (two or more)	0	3	8	23	26	252	I
	E	Bag handle	1	2	3	4	5	Weight
Strap handle		7	13	14	13	13	192	II
Cut out		58	0	0	2	0	66	VI
Rolled handle		12	12	14	12	10	176	III
Rope with loop		44	9	7	0	0	83	V
Handle with metal ring		6	5	12	16	21	221	I
Handle with adjustable buckle		23	10	9	6	12	154	IV
F		Bag closure	1	2	3	4	5	Weight
	Open top	34	15	5	3	3	106	VII
	Top zip	9	5	7	13	26	222	I
	Magnet snap	7	13	14	13	13	192	III
	Flap with snap	12	12	14	12	10	176	V
	Tab with snap	15	11	14	12	8	167	VI
	Down zip	6	11	12	16	15	203	II
	Flap with lock	11	12	15	12	10	178	IV
G	Art inspiration & motifs	1	2	3	4	5	Weight	Ranks
	Alpona	12	12	14	12	10	176	IV
	Floral abstract	5	12	18	14	11	194	II
	Animal abstract	8	15	12	13	12	186	III
	Geometric abstract pattern	3	10	12	26	9	208	I
	Mythological/ epic stories	15	11	14	12	8	167	V
H	Bag complexity	1	2	3	4	5	Weight	Ranks
	Simple	20	14	5	16	5	152	III

	Medium	6	5	9	23	17	220	I
	Complex	13	12	8	14	13	182	II
I	Bag material & finish	1	2	3	4	5	Weight	Ranks
	Block printing only	9	10	14	11	16	195	II
	Batik only	7	13	14	13	13	192	III
	Combination of block print and batik	0	10	5	12	33	248	I

Source Developed by authors from Primary data

Bag Type: Section A of [Table 2](#) illustrates that out of the seven most commonly used bag-type in Santiniketan leather bags bowling is the most preferred style by respondents closely followed by Tote. Hobo and messenger bags have been graded above Baguette and Duffel is least preferred bag type. The most preferred bags are moderate to big in sized which allow users to blend style with practicality.

Bag Size: As indicated in section B, the preferred size of Santiniketan bag is medium with large opted as the next preference. From this it can be concluded that Santiniketan leather bags is perceived by most respondents as a day bag rather than dress or evening bag.

Bag Silhouette: The results as shown in section C illustrate trapezoid and rectangular are most preferred silhouettes with a tie in the ranking. The other silhouettes are considered by the respondents as odds with huge difference in ranking points. Both the chosen silhouettes are considered as classic types for Santiniketan leather bags.

Bag Colour: Colour is considered to be one of the most influential attributes in purchase decision making process. Most often the same product is made in different colour variants. There are about 14 colours used in Santiniketan products out of which few colours are common which is provided in the list. However, the ranking in section D show that respondents selected multi-colour as option to endorse the vibrant appeal of Santiniketan bags.

Bag Handle: Most of the bag handles of Santiniketan bags doesn't include any metal trims or accessories. However, as per section E respondents have preferred handle with metal ring which is in contrast with present practice.

Bag Closure: As indicated in section F, the preferred bag closure for Santiniketan bag is top zip followed by down zip construction. Open top has been least preferred by the respondents emphasizing on the significance of the security feature of the bag.

Art Inspiration & Motifs: Santiniketan leather bags are inspired by folk art visible in the form of motifs and patterns. Traditionally Alpona and abstract motifs of animals and flowers are main art inspiration. However, section G show that the modern customers are more inclined towards geometric abstract patterns which clearly shows a paradigm shift.

Bag Complexity: The results as shown in section H illustrates moderately complex bags are most preferred style followed by complex styles in the rankings. In contrast classic Santiniketan leather bags are mostly simple in construction.

Bag Material & Finish: Section I illustrate that the combination of block print and leather batik is the most preferred material and finish while block print only and batik only have ranked 2nd and 3rd respectively revealing customers' preference towards complex characteristics of the bag design.

From the results above a design attribute preferential matrix [Figure 4](#) is drawn based on the rankings obtained. In order to provide a wider scope of variance in the

designs, the first two ranks has been considered for each design attributes. The matrix is based on a combination principle of 9 design attributes and 18 variations which can be used to design new bags meeting customers' perception.

Figure 4

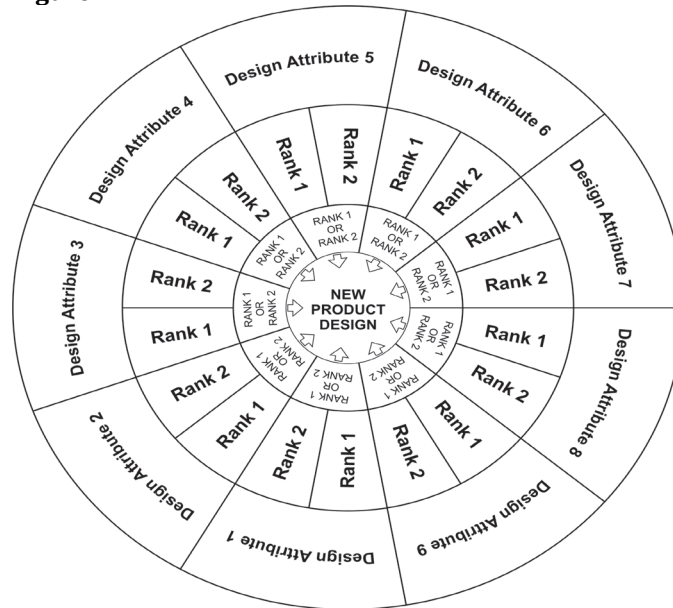


Figure 4 Design Attribute Preferential Matrix.

Source Developed by authors

5. CONCLUSION

In the present fashion scenario, people want changes in apparel accessories to create variety in personal styles. With the decline of sales and traditional approach to design it is apparent that there is inadequacy in incorporating customers' preferences in a strategic way into the present system of design of Santiniketan leather bags. The rankings obtained through the study is significant in the context of the paradigm shift from traditional to contemporary values which is indicated by the respondents preference of Geometric abstract motifs over traditional motifs like alpona, floral or mythological. The rankings also confirm that the customers prefer moderately complex bags which are seldom manufactured in Santiniketan style. Other preferences show that customers prefer a contemporary and practical direction in the design of the Santiniketan leather bags. The study also proposed a unique method to design new bags meeting customers' perceptions. The method is prearranged by a matrix that map customer preference of design attributes and their variations to achieve a customer oriented bag design. This approach will lead to further studies to explore the market response and decision support mechanism based on the proposed method to assist in design.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

REFERENCES

- All India Artisans and Craftworkers Welfare Association. (2017, April). National Handicrafts Policy Report.
- Bissel, W., (2013). Crafting a livelihood- Building Sustainability for Indian Artisans. Dasra.
- Creusen, M. E., & Schoormans, J. P. (2005). The Different Roles of Product Appearance in Consumer Choice. *Journal of Product Innovation Management*, 22(1), 63-81. <https://doi.org/10.1111/j.0737-6782.2005.00103.x>
- Eppinger, S. D., & Ulrich, K. (1995). *Product Design and Development* (5th ed.). McGraw-Hill.
- Kampylis, P., & Berki, E. (2014). Nurturing Creative Thinking. *International Academy of Education (IAE)*, 1-28.
- Kapur, H., & Mittar, S. (2014). Design Intervention & Craft Revival. *International Journal of Scientific and Research Publications, Journal of Product Innovation Management*, 4(10), 1-5.
- Luchs, M., & Swan, K. S. (2011). Perspective: The Emergence of Product Design as a Field of Marketing Inquiry. *Journal of Product Innovation Management*, 28(3), 327-345. <https://doi.org/10.1111/j.1540-5885.2011.00801.x>
- Raviprakash, N., Damani, S., Chatterjee, A., Joshi, M., & Agrawal, P. (2019). Using AI for Economic Upliftment of Handicraft Industry. *arXiv Preprint*. <https://doi.org/10.48550/arXiv.1907.02014>
- Song, H. J., Lee, C. K., Park, J. A., Hwang, Y. H., & Reisinger, Y. (2015). The Influence of Tourist Experience on Perceived Value and Satisfaction with Temple Stays: the Experience Economy Theory. *Journal of Travel & Tourism Marketing*, 32(4), 401-415. <https://doi.org/10.1080/10548408.2014.898606>
- Tian, K. T., Bearden, W. O., & Hunter, G. L. (2001). Consumers' Need for Uniqueness: Scale Development and Validation. *Journal of Consumer Research*, 28(1), 50-66. <https://doi.org/10.1086/321947>
- Truong, Y., Klink, R. R., Fort-Rioche, L., & Athaide, G. A. (2014). Consumer Response to Product Form in Technology-Based Industries. *Journal of Product Innovation Management*, 31(4), 867-876. <https://doi.org/10.1111/jpim.12128>