

# Development of diversified hand woven furnishing products with amalgamated assamese woven motifs and assessment of consumer preference

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■ **ABSTRACT** : Handlooms are environment-friendly technology as they require no energy in operation except for the machinery that spins the yarn. The handloom sector plays a strategic role in the upliftment of the rural economy of India, with its attractive products shows dexterity and artistic ability of the weavers. Even today, the rural people of India mostly women grossly depend on the handloom which requires minimum capital and less technical skills. The present study is an attempt to develop diversified hand-woven furnishing products that require less time to produce and can have ever-growing market potentials. Different unique and peculiar products were developed by amalgamated woven designs and products were evaluated to assess the consumer acceptability. The study revealed that design innovation has a tremendous effect on consumer choices. Among the developed designs, design no. 3 and 10 got highest (2.96) WMS followed by design no. 6, 11, 12 (2.92) and design no. 1 (2.90), respectively in different developed products. It was found that a healthy handloom industry requires a broad and varied product range, design intervention, and appropriate marketing mechanisms for higher marketability. Hence, the study can help the weavers of Assam towards a new perspective of value-added products for their sustainable livelihood.

■ **KEY WORDS**: Handloom, Traditional, Diversified, Amalgamation, Design, Weaver

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**H**andloom exemplifies the cultural richness and forms a precious part of the generational legacy transferred from one generation to next. It also reflects the artistry that lies in the magical hands of the weavers. The level of artistry and intricacy achieved in the handloom fabrics is unparalleled and beyond the

scope of modern machinery. The diverse cultural ethos represented by the products ranging from exquisite fabrics, which take more than a month to weave, than other popular items, where mass production is done. Hand weaving is one of the popular, rich and the most resilient media to express the ethnics of different communities of

Assam. It employs 12 million people and become the second-largest sector in the employment generation stands next to agriculture. It provides direct employment to 6.5 million people in the country and able to produce fourteen per cent of the total cloth produced by the country.

Handloom weaving is inexorably linked with the culture and tradition of the Assamese people. The handloom textiles of Assam have occupied a very important place in the economic and cultural life of the state. It is a part of our culture and heritage and one of the largest economic activities after agriculture having the capacity of absorbing a greater number of manpower. In terms of impact and coverage, handloom weaving stands next to Agriculture in the state's rural scenario. There is hardly a village in Assam where the rhythmic music of the loom and the shuttle cannot be heard. Assam is a home of several types of silk and the most prominent and prestigious being muga, endi and mulberry silk exclusively which had created great scope for weavers of Assam to produce finest artistic products. The magic effects of the weaves not only enable them in sustaining their families but also serve as an important means of livelihood for tens of thousands of individuals at various stages of the value chain. In spite of having three silk varieties and skilled weavers in Assam, the jewel in the crown of handloom sector is the rich variety of traditional designs and motifs of different tribes that the looms of Assam have been producing for 100 years. The handloom products of Assam particularly sarees and the traditional attires are in great demand in national market, but they require a long time to weave and is very expensive.

A healthy handloom industry requires a broad and varied production range, design intervention and appropriate marketing mechanisms for higher marketability. The handloom industry not only provides the basic necessities of life but also plays a vital role in the economic growth of a country through its contribution to employment generation, industrial output, and export earnings. There are different tribes in Assam and they have their traditional motifs derived from nature, famous monuments, and various kinds of folk arts and crafts. These traditional motifs are not very popular as their use is limited within the tribes only. Combining these beautiful motifs, a diversified product range can be created which will have demand in both the domestic and international markets and be able to create tourist

interest. Therefore, there is a need for design intervention in introducing innovative products with better appeal and usage for economic viability.

Diversification of handloom products and adaptation of various traditional designs and styles to contemporary fashions and needs can open a new vista in the handloom sector. Therefore, an attempt has been made to develop products with amalgamated motifs which require lesser time and have more market potentials. The research is extensively done to assess the consumer preference regarding developed hand-woven products.

## ■ RESEARCH METHODS

### Locale of the study:

The study was conducted in the department of Textiles and Apparel Designing, College of Community Science, Assam Agricultural University, Jorhat, Assam.

### Selection of yarns:

Cotton yarns of 10s and jute yarn of 40s count were selected to use as warp and weft, respectively. Zero ply acrylic yarns of different colors were used in producing designs. These were procured from the local market of Jorhat.

### Selection of woven designs:

Assamese non-tribal woven motifs along with tribal motifs of Bodo and Mishing tribes were selected purposely for the study. Motifs were collected from different primary and secondary sources. The selected traditional designs were Kaziranga design, Zapi design, Gocha design, Moura design, Chari bati design, Mukkardama agar design, Ghai design, Kolki design, Ghaigamic design and Mey-up design, HajwAgor, Yob design.

### Description of the selected designs:

#### *Kaziranga design:*

A traditional Assamese design. According to the local craftsmen and experts, this style derives its inspiration from the wildlife of Kaziranga – evergreen wildlife famous for the Assam pride-one horned rhino.

#### *Zapi design:*

A traditional Assamese design. Japi is a traditional headgear of Assam, once used by females of noble and rich families, but now serves as a headgear for farmers

Development of diversified hand woven furnishing products with amalgamated assamese woven motifs & assessment of consumer preference

to protect them from rain and sun.

*Gocha design:*

A very common traditional Assamese design in the shape of a tree. The shape is often represented in a geometrical manner and the shape and design vary according to the expertise of the weaver.

*Moura design:*

A traditional Assamese design. Maura means peacock in the local language. The symbol of the peacock is very commonly woven on the silk garments.

*Chari bati design:*

A traditional design of the Bodo tribe of Assam. It is a diamond-shaped design and also known as 'HajwAgor' which depicts mountains.

*Mukkardama agar design:*

A traditional design of the Bodo tribe of Assam. The design is arranged in the shape of a court. This particular design is for the elderly male, having more physical strength.

*Ghaigamic design:*

A traditional design of the Mishing tribe of Assam which depicts the graphic details of all the designs of the Mishing tribe. Its graphic direction consisting of straight, angular, rectangular, triangular, and square form.

*Kolki design:*

Kolki patterns are contemporary patterns with no traditionalism attached to it. These patterns are often woven on traditional Assamese attire and have become very popular in recent times.

*Mey-up design:*

A traditional design of the Mishing tribe of Assam. In this design eight hands, fans are beautifully arranged along with some floral motif.

*Yob design:*

A very popular traditional design of the Mishing tribe of Assam. The motif resembles a caterpillar.

*Buta design:*

A traditional Assamese design consisting small body

repetitive design (butta). The shape of the design varies from round to diamond shape.

*Pankata design:*

It is border design with arrangement of motifs like leaves, flowers and kalkas in the manner of an individual betel vine.

*Amalgamation of woven motifs:*

A total of 22 new woven designs were developed by combining parts of selected designs with the help of Computer Aided Designing using REACH Tech software.

*Development of new product range:*

New innovative product range which could be a boost to the Assamese handloom industry was developed. These were :

*Area rug (Soft floor mat):*

It is used to cover a small space or only a part of the floor of a room. Area rugs add a very important design element to the surface when creating a space.

*Tapestry (Wall hanging):*

It is a piece of thick fabric with designs formed by weaving colored weft threads used as a wall hanging or soft furnishing.

*Runner:*

It is a narrow length of cloth laid on top of the table cloth or a bare table or top of showcases. The runner is also used to create visual balance for full space settings, a backdrop for a piece of art, a decorative element and can add just the right touch of pattern, design, or accent.

*Cushion cover:*

It is a fabric cover, often with a decorative design, designed to protect a cushion, is used especially on chairs for sitting or leaning on. Cushion covers are found in many different shapes and sizes among which the square and rectangular is common in use.

*Placemats:*

It is a piece of cloth, put on a table under someone's plate, and eating utensils. Placemats are the perfect table accessories to transform any table setting. Placemats

come in many sizes and shapes such as rectangle, square, round, oval, cutting corners and over-sized and most popular size is the rectangular placemats.

Measurements of developed products were shown in Table A.

Product no.	Product's name	Measurements ( inch)
1	Area rug	48x24(1xb)
2	Tapestry	29x9 (1 x b)
3	Runner	48x13(1 x b)
4	Cushion cover	15x15(1 x b)
5	Placemats	13x13,19x13(1 x b)

**Product development:**

Out of 22 developed designs 12 designs were selected by taking preferences from 30 judges regarding the suitability of designs to be used in particular products. Products were woven in plain weave and developed designs were transferred to woven form with extra weft by using doobby attachment.

**Finishing of developed products:**

Area rug, Runner, and Placemats were finished with self-tassels on two sides. Cushion covers were stitched with back fastening.

**Cost estimation:**

The cost of each finished product were calculated.

**Evaluation of the products:**

Preference of 50 respondents was taken with the help of a well-structured performa to evaluate the developed products and to assess the consumer preference regarding diversified furnishing products.

**Statistical analysis:**

Weighted mean scores were calculated for each attribute of the products. Three different scores were given as per the suitability 3 for highly suitable, 2 for suitable, and 1 for somewhat suitable. Weighted mean score (WMS) were calculated from the number of respondent against each attribute of the developed products.

$$WMS = \frac{\text{No. of respondent} \times 3 \text{ (HS)} + \text{No. of respondent} \times 2 \text{ (S)} + \text{No. of respondent} \times 1 \text{ (SS)}}{\text{Total number of respondents}}$$

No. of respondent = Number against each attributes

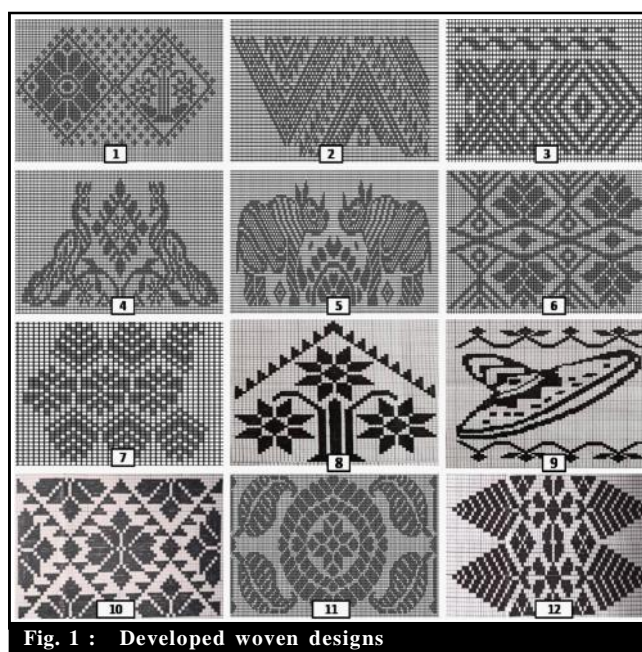
HS=Highly suitable, S=Suitable, SS=Somewhat suitable

**RESEARCH FINDINGS AND DISCUSSION**

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

**Design development:**

22 designs were developed by combining a part of the selected designs to make a new one. Out of these, 12 designs were preferred by the judges to apply on particular products (Fig. 1). Table 1 showed the details of the developed designs for the study.



**Fig. 1 : Developed woven designs**

Design no	Combination of motifs	Suitable application
1.	Gocha + Ghaigamic+ Buta	Cushion cover
2.	Ghaigamic + Mey-up	area rug
3.	Mey-up + Ghaigamic	area rug
4.	Maura + Chari bati	Tapestry
5.	Kaziranga + Mukkardama	Tapestry
6.	Yob + Ghaigamic	Runner
7.	Chari bati + Buta	Area rug
8.	Gocha + Mey-up	Place mat, Cushion cover
9.	Japi +Pankata	Place mat, Runner
10.	Mey-up +Buta	Place mat, Runner
11.	Mukkardama + Kalki	Cushion cover, Tapestry
12.	Mey-up + Chari bati	Runner, Place mat

**Product development:**

Furnishing items such as 1. Area rug, 2. Tapestry, 3. Runner, 4. Cushion cover and 5. Placemats were made by using developed designs.

– *Area Rug:* Three (1a,1b,1c) area rugs were woven with design no. 2, 3 and 7, respectively. In area rug 1a, three colour such as, red blue and yellow were used. In area rug 1b, red and green and in 1c yellow and black were used (Fig. 2).



Fig. 1 : Area rug

– *Tapestry:* Three (2a, 2b, 2c) tapestry were woven with design no. 4, 5 and 11 with different colour combination. In tapestry 2a, four colors such as, red green, black and yellow were used. Combination of blue, red, yellow and red, green were used in tapestry 2b and 2c, respectively (Fig. 3).



Fig. 2 : Tapestry

– *Runner:* Three (3a, 3b, 3c) runner were woven with design no. 6,9 and 12 with maroon and red colour (Fig. 4).

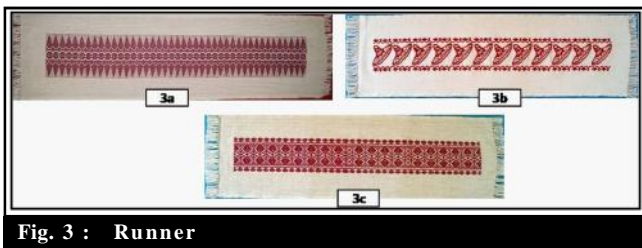


Fig. 3 : Runner

– *Cushion cover:* Three (4a, 4b, 4c) cushion covers were woven with design no. 1, 8 and 11 with different color combination. In cushion cover 4a, three colors such as, red green, black were used. Combination of black, red, and only red was used in cushion cover 4b and 4c, respectively (Fig. 5).



Fig. 4 : Cushion cover

– *Placemat:* Three (5a, 5b, 5c) placemat were woven with design no. 8 and 9 and 10 with single color (Fig. 6).



Fig. 5 : Placemats

*Cost estimation:* Cost of developed products was calculated considering the cost of raw materials required for a particular product, labour charges and includes profit too. The cost of Area rug is between Rs. 800-1500.00 depending on the type of design and no. of colors used. The cost of the runner is Rs. 480.00 each, the cushion cover is from Rs. 200-500.00, Cost of Tapestry is Rs. 550.00 each without binding, and the cost of the placemat is Rs. 70.00 and Rs. 950.00 for placemat sets (7 pieces). Depending on design, size, and color combination, the cost of the products varies.

### Evaluation of the products:

Evaluations of the products were carried out to assess their acceptability among consumers. A well-structured questionnaire was used to assess the products. A total number of fifty (50) respondents evaluated the products. Evaluation of the diversified furnishing products was carried out in respect of the suitability of the surface enrichment techniques, motifs used, the arrangement of the motifs, colour combination, fabric texture, finishes used, size, and cost of the products.

### Suitability of motifs and colour combination used:

Table 2 showed the weighted mean score in regards to suitability of motif used in diversified products as well as their color combination. In Area rug, the highest WMS was found in 1b (2.96) in the suitability of design followed by 1a (2.94) and 1c (2.88), respectively. In color combination, the highest WMS was found in 1b (2.92) followed by 1a (2.88) and 1c (2.86), respectively.

In Tapestry, the highest WMS was found in 2c (2.96) in the suitability of design used followed by 2a (2.88) and 2b (2.82), respectively. In colour combination, the highest WMS was found in 2a (2.90) followed by 2c

(2.88) and 2b (2.86), respectively.

In Runner, the highest and equal WMS was found in 3a and 3c (2.92) in both suitability of design and color combination (2.86).

In Cushion cover, the highest WMS was found in 4c (2.92) in the suitability of design used followed by 4a (2.88) and 4b (2.80), respectively. In color combination, the highest WMS was found in 4b (2.88) followed by 4a (2.86) and 4c (2.82), respectively.

In Placemat, the highest WMS was found in 5c (2.96) in the suitability of design used followed by 5a (2.84) and 5b (2.80), respectively. In colour combination, the highest WMS was found in 5a (2.90) followed by 5c (2.86) and 2b (2.84), respectively.

### Suitability of arrangement of the motifs, texture and finishes of the end products:

Table 2 revealed the WMS of the products in regards to suitability of arrangement of the motifs, fabric texture to the utility of end product and finishes incorporated to the diversified products.

Highest WMS(3.00) was found in cushion cover in respect of arrangement of the motifs followed by runner

Product no. and Name	Product no.	Design no.	Suitability of design used	Colour combination
1. Area rug	1a	2	2.94	2.90
	1b	3	2.96	2.94
	2c	7	2.88	2.76
2. Tapestry	2a	4	2.88	2.90
	2b	5	2.82	2.82
	2c	1	2.90	2.86
3. Runner	3a	6	2.92	2.86
	3b	9	2.76	2.84
	3c	12	2.92	2.86
4. Cushion cover	4a	1	2.88	2.86
	4b	8	2.80	2.88
	4c	11	2.92	2.82
5. Place mat	5a	8	2.84	2.94
	5b	9	2.80	2.84
	5c	10	2.96	2.86

Product no.	Product Name	Arrangement of the motifs	Texture	Finishes of the end products
1	Area rug	2.90	2.90	2.96
2	Tapestry	2.90	2.96	2.98
3	Runner	2.92	2.96	2.94
4	Cushion cover	3.00	2.98	2.90
5	Placemat	2.88	2.88	2.98

**Table 4 : Acceptability (appropriateness) of the contemporized value added product**

Product no.	Product Name	Cost of the products (Rs.)	WMS
1	Area rug	800 to 1500.00	4.36
2	Tapestry	550.00	4.56
3	Runner	480.00	4.80
4	Cushion cover	200 to 500	4.80
5	Placemat	70.00 to 140.00	4.24

(2.92) and both area rug and tapestry (2.90), respectively. In case of texture of the product highest WMS (2.98) was found in cushion cover followed by runner and tapestry (2.96) and lowest WMS was found in Placemat (2.88). In regards to finishes incorporated in developed products, highest WMS was found in tapestry and placemat (2.98) and lowest WMS in cushion cover (2.90).

#### Acceptability (appropriateness) of the contemporized value added product:

Based on the estimated cost of the developed products, acceptability of the contemporized value added products was assessed and depicted in Table 3. The highest acceptability was (WMS-4.80) found in cushion cover and runner followed by tapestry (4.56), area rug (4.36) and placemat set (4.24) (Table 3).

#### Rank of diversified furnishing products in order of preference:

Based on preference, the rank of the product was evaluated and found that product no. 4 (Cushion cover) got I<sup>st</sup> rank followed by 3 (Runner), 1 (area rug,) 2 (tapestry) and 5 (placemat) as II<sup>nd</sup>, III<sup>rd</sup>, IV<sup>th</sup> and V<sup>th</sup> rank, respectively.

#### Overall opinion about these contemporary diversified products:

It was revealed from the evaluation that 100 per cent of the respondents felt that these diversified woven products will increase avenues for self-employment, inspiration for reviving other tribal/ rural crafts, export avenues as well as tourist interest. They remarked the

**Table 5 : Rank of value added products in order of preference**

Product no.	Product Name	Rank
1	Area rug	III
2	Tapestry	IV
3	Runner	II
4	Cushion cover	I
5	Placemat	V

work as excellent effort of reviving tribal lore as well as elegant and eye catching product.

#### Conclusion:

From the study it was revealed that design amalgamation has a tremendous effect on consumer choices. Among the developed designs, design no. 3 and 10 got highest (2.96) WMS followed by design no. 6,11,12 (2.92) and design no.1( 2.90), respectively in different developed products. In terms of cost of the product, cushion cover and runner was found to be highly acceptable by the consumer based on calculated WMS (4.80) as compared to other products. From the evaluation, based on preference cushion cover got I<sup>st</sup>rank followed by runner and area rug as II<sup>nd</sup> and III<sup>rd</sup> rank, respectively. Hence, it can be concluded from the study that there is ample scope for product diversification from handloom with innovative designs and better appeal. For this, it is essential to understand the role of handlooms in their proper perspective. In rural areas, weaving activities are considered as an additional household chore to enhance family income and thus raise standards of living. Therefore for the economic upliftment of a large section of the population, the development of this sector is of critical importance. Product diversification opens up new perspectives to the ethnic craft of Assam and can be able to get a better domestic market and it will boost exports of handloom products to the international market.

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## ■ REFERENCES

- Dutta, C.R. (2015).** Handloom Industry and Its Economic Impact- A study of Nagaon District with special focus on Gerjaipam Village. *Internat. J. Interdisciplinary Sci. Society & Culture*, **1**(2) : 2455-2909
- Goswami, R. and Jain, R. (2014).** Strategy for Sustainable Development of Handloom Industry. *Global J. Finance & Management*, **6**(2) : 93-98
- Humbe, V.R. (2014).** Role of Social Media in Marketing of Handloom Product. *Internat. J. Sci. & Res.*, **3**(7) : 136-139
- Maulik, S.R., Bhowmik, L. and Agarwal, K. (2014).** Batik on handloom cotton fabric with natural dye. *Indian J. Traditional Knowledge*, **13**(4) : 788-794
- Mazumder, L. (2013).** *Textile Tradition of Assam*, (Bhabani Books Publishing), 25-35, 40-50, 57-66, 113-142
- Paul, M.M. (2017).** Review of Consumer Opinions and Preferences Regarding Interior Design Products Made from Handlooms. *Adv. Res.*, **11**(4) : 1-7
- Phukan, R. (2012).** Handloom weaving in Assam: Problems and Prospects. *Global J. Soc. Sci.*, **12**(8) : 17-21.
- Rao, K.R.M. and Kumar K.K. (2018).** Weaver's attitude on implementation of integrated handloom cluster development scheme (IHCDS): An empirical study. *Internat. J. Trend Scientific Res. & Development*, **2**(2) : 1480-1489
- Yasmin, S.S., Boruah, R.R. and Konwar, M. (2019).** Assamese hand-woven motifs and development of the center panel designs for Kurti. *Asian J. Home Sci.*, **14**(2) : 394-397.

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