

A Study Regarding Extent of Use and Potentiality of Recycle Cotton Fabric Turn into Apparel Production

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Abstract

The present study is based on experimental method to make garments from cotton recycled fabric and survey method to check acceptance of constructed garments. Garments such as jacket, pant, belt, short and long kurta, purse, summer coat and apron are prepared with different surface ornamentation techniques. The home maker and gainfully employed women respondents of Ahmedabad were selected for sample. Selected respondents accepted all garments and gave them rank according. The cost of apparel and its acceptance of respondent by giving rank to apparel was a strength of study.

Keywords: Recycling, Conservation, Cotton.

Introduction

Recycling and conservation are becoming commonplace in all aspects of our life. Such heightened knowledge, along with shifting economic conditions, is a powerful force of encouraging change in industry and commerce. Cotton, one of the most useful fiber of textile industry is natural and eco-friendly fiber but lots of use of water in harvesting and removing impurities from fiber is main problem with cotton fibers. The majority of textiles including cotton and manmade fibers are fully recyclable. Textiles consist of any product made of cloth or artificial fabric, such as clothing, bed linens, cloth napkins, towels, and more. Textile waste can fall in two categories: pre-consumer textile waste and post-consumer use waste.

Compression molding square pipe for exhibit low thermal conductivity using recycled manmade and natural waste fabric is developed by some researcher. Crystalline aliphatic polyester non-woven fabric, short cotton and woven cotton fabric waste is used for experiment. Electron microscopy shows the interface between melted polyester matrix and the cotton fiber, and result shows that melted polyester better penetrate in the woven cotton manufactured pipe than short cotton waste manufactured pipe, and cotton fiber manufactured pipe resulted in low thermal conductivity (**Katori, et al. (1999)**). carpet, apparel, and textile waste can be transformed in low cost recycled automotive interiors material by nonwoven manufacturing system. Carding and cross layering techniques of direct needling is superior due to lower investment, small space requirement, lower raw material cost, low operating cost, and low material consumption (**Selker (2001)**).

The present study was based on the aim of “A Study regarding Extent of Use and potentiality of recycle Cotton Fabric turns into Apparel Production.” For achieving this aim investigator produce some designer garment, calculate their cost, and for acceptance of apparel survey was done.

Methodology

The study was based on two approach, experiment with descriptive survey. An experimental method was held for designing and construction of garments with different surface ornamentation techniques. After experiment, for collecting information regarding cotton recycled fabric's garment and acceptability of that, descriptive survey has been used.

Grey recycled cotton fabric was used for constructing Selected garments because after textile finishing and dyeing process regular fabric and recycled fabric is difficult to be identified. Hand embroidery, machine

embroidery, hand printing, screen printing, block printing with decorative trimmings like buttons and patches were used for surface ornamentation of garments. Existing trend and best use of recycled fabric is aimed to make following selected garments.



Jacket



Trousers



Shirt



Belt

Purse



Apron



Kurtis



Purposive random sampling technique was used for selection of sample under this research. Ahmedabad's 180 home maker and gainfully employed women were selected for this survey. Acceptance level of garment was classified in four categories, highly acceptable, acceptable, somewhat and not acceptable.

Result and discussion

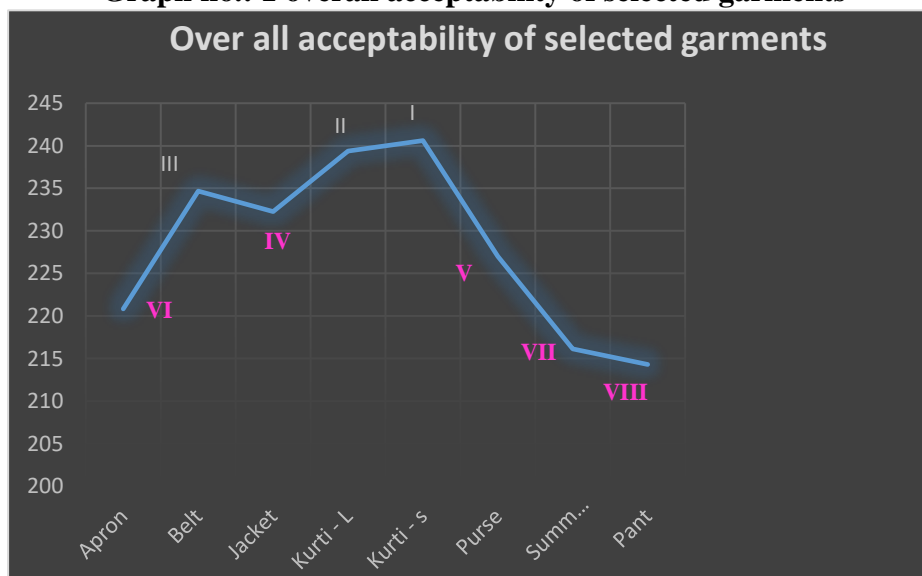
Table No.: 1 Calculations of actual cost and selling cost of each Apparel and accessory made from cotton recycled fabric

S r N o.	Articles name	Used fabric								Embe llishin g type	Expenditure					Actu al cost ₹	Selling price ₹
		Grey				Coloured					Tim e in Hrs.	Fabr ic cost ₹	Embe llishin g cost ₹	Other / Labo ur charg es ₹	Stitc h ₹		
		O Z	Width in inche s	Rat e ₹ / Mt r.	Fabr ic used Mtr.	O Z	Widt h in inch es	Rat e ₹ / Mt r.	Fabri c used (Mtr.)								
1	Apron	7	63	55	0.55	--	--	--	--	Patch	4	30	11	0	5	46	55
2	Belt	1 5	60	95	0.04	--	--	--	--	Block print	4	4	5	32	14	55	66
3	Jacket	7	54	48	1.00	4	58	55	1.00		16	103	20	2	80	205	245
4	Kurti Long - printed	4	50	37	1.60	--	--	--	--	Scree n print	10	59	25	2	40	126	150
5	Kurti Short - embroid ery	4	50	37	1.45	--	--	--	--	M/c embr oider y	16	54	80	2	40	176	210
6	Purse	1 0	63	63	0.45	4	63	46	0.22	Block print	5	48	30	25	15	108	130
7	Summer coat	4	63	46	1.35	--	--	--	--	Scree n print	8	64	10	2	50	126	150
8	Trouser /pant	1 0	60	60	1.25						16	75	20	6	100	201	230
	Total				7.69				1.22		79			71		1043	1236

Table No.: 2 Acceptability of Apparel made by cotton recycled fabric

Sr. No	Name of Apparel	Acceptability of apparel				Over all acceptability	
		Home maker		Gainfully Employed		X ²	Rank
		X ²	Rank	X ²	Rank		
1	Apron	213.55	VIII	228.11	IV	220.83	VI
2	Belt	237.84	III	231.48	II	234.66	III
3	Jacket	235.13	IV	229.4	III	232.27	IV
4	Kurti Long (printed)	255.73	I	223.04	VI	239.39	II
5	Kurti Short (embroidered)	241.73	II	239.48	I	240.61	I
6	Purse	229.13	V	224.91	V	227.02	V
7	Summer coat	214.08	VII	218.15	VII	216.12	VII
8	Trouser /pant	214.2	VI	214.42	VIII	214.31	VIII

Graph no.: 1 overall acceptability of selected garments



Graph no. 1 observed that chi square value for acceptability of each garments among selected sample. the first rank respondents were given to short hand embroidered kurti (kurti- s). Printed kurti (kurti- L) and belt, second and third respectively. Results shown that Kurtis and waist belt is more acceptable among the respondents.

Conclusion

The study indicates clearly that recycled cotton fabric has potential market in future. If Proper incentives and market provide by government and business tycoons helps to promote recycled cotton fabric that can be helpful in various sectors, society and earth too.

References

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