Improving aesthetic and functional values of children's wear packs using waste recycling

Dr. Tarek M. Zaghlol

Lecturer in Department of Ready-made Garments Faculty of Applied Arts, Damietta University, Damietta, Egypt.

Tarekzaghlol@vahoo.com

Dr. Hossam El Din G. Hussein

Lecturer in Department of Ready-made Garments, High Institute of Engineering and Technology, El Mahala El Kobra, Egypt.

Hossamgad71@yahoo.com

Abstract:

Garments packing is one of the most important factors which support marketing and promotion of garments products, save these products from damage, and show them in the best image. A great development has happened in the production technology of garments packing materials. Recycling waste in order to produce new products, is one of the most important issues which a lot of researchers, all over the world, need to achieve by using creative methods. Waste recycling achieves also sustainability by saving environment and saving economical sources.

This study detected to recycle some kinds of waste to design and produce sustainable creative packs of children's wear. This study was done on students of ready-made garments department in Damietta university during the course of garments packing and storage. Students were divided into three groups: the first group used wastes of plastic bottles, the second group used wastes of cartoon paper, the third group used wastes of wood.

Opinions of garments experts were taken on those sustainable packing through questionnaire. The first group, which used wastes of plastic bottles has had the best evaluation from garments experts, then the second group and at last was the third group. The first design from the first group that had the best evaluation, the design of packs was suitable for age category of children, suitable for the usage of garment product and gave aesthetic value to garment product. The waste recycling was, to develop sustainable packs, achieves aesthetic and economical values of product, and was a good mean to get rid of waste.

Keywords:

Garments packing, Sustainability, Waste Recycling, Children's wear.

Introduction:

Garments packing is one of the most important factors which supports marketing and promotion of garments products, save these products from damage, and show them in the best image. A great development has happened in the production technology of garments packing materials. Waste recycling in order to produce new products, is one of the most important issues which a lot of researchers, all over the world, need to achieve by using creative methods. Waste recycling achieves also sustainability by saving environment and saving economical sources.

Experimental:

This study was detected to recycle some kinds of waste to design and produce sustainable creative packs for children's cloth. This study was done by students of ready-made garments department in Damietta university during the course of garments packing and storage. Students were divided into three groups: the first group used wastes of plastic bottles, the second group used wastes of cartoon paper, the third group used wastes of wood.

Results and discussion:

This table shows the quality factor and average of all designs according to the opinions of some garments experts which were taken through questionnaire.

Quality factor %	Average	Design number
98.48	32.50	1
94.70	31.25	2
96.21	31.75	3
87.12	28.75	4
94.70	31.25	5
92.42	30.50	6

Conclusion:

Opinions of garments experts were taken on these sustainable packing through questionnaire. The first group, which used wastes of plastic bottles, has had the best evaluation from garments experts, then the second group and at last came the third group. The first design from the first group had the best evaluation. The design of packs was suitable for age category of children, suitable for the usage of garment products and gave aesthetic value to garment products. The waste recycling was, to develop sustainable packs, achieves aesthetic value and economical values of products, and was a good mean to get rid of wastes.

References:

- Al-Wattar, Obey M. & Mahmood, Sahar A., "potentials for recycling residential solid waste in Mosul city", journal tanmyat al-rafidain, Vol. 109. No. 34, (2012).

- Memon, Mushtaq Ahmed, " integrated solid waste management-based on the 3R approach ", journal of material recycles waste management, Vol. 12, No. 1, (2010), pp. 30-40.

- Muthu, S., Fast Fashion, "Fashion Brands and Sustainable Consumption", Textile Science and Clothing Technology, Springer, Kowloon, Hong Kong, (2019).

- Muthu, S., "Sustainable Innovations in Recycled Textiles", Textile Science and Clothing Technology, Springer, Kowloon, Hong Kong, (2018).

- Wang Y, Zhang Y, Polk M, Kumar S, Muzzy J 16—Recycling of carpet and textile fibers. Plastics and the environment: a handbook. Wiley, New York, (2003), pp 697–725

- Yan, Jihong & Feng, Chunhua," Sustainable design-oriented product modularity combined with 6R concept: a case study of rotor laboratory bench", journal Clean Technologies and Environmental Policy, Vol. 16, No. 1, (2014).