

Innovative proposals for designing clothes that achieve the economic dimension of sustainability

Prof. Amr Mohamed Gamal Eldin Hassouna

Design professor at Applied Arts- Helwan University

Asisst. prof. Dr. Eman Rafat Saad

Assistant professor at Applied Arts- Helwan University

Mrs. Aida Mohamed Zayed

Fashion & Design center manager- Industry & Trade Ministry

Researcher. Doaa Farouk Mohamed Elmor

Head of design department- Industry & Trade Ministry

Doaa.elmor@gmail.com

Summary:

The world's interests have recently been directed towards the concept of sustainability, which is the preservation of all forms of life for humans, animals, plants and the planet in general. The research dealt with sustainability in its four dimensions, especially the economic dimension of sustainability and that is by making use of the remnants of the cotton raw fabrics resulting from the cutting and individual stages in making clothing designs and thus we could have saved the cost of the piece of clothing. The current research has sought to identify applications for creating quality designs from textile residues and waste for women, it achieves the economic, sustainability and functional side of the garment, in addition to the aesthetic aspect to take advantage of some of these applications in the manufacture of ready-made clothes through an experiment that the researcher conducted to take advantage of the shear residues of the cotton material for ready-made garments in making various designs that serve the ready-made garments industry and making an opinion poll to ensure the quality and suitability of these designs for implementation, and sustainability has been achieved and the production of lower cost designs as it has reduced the economic problems due to the large burden of these residues and exhausts, money and labor, cost of transporting, and storing, classifying and disposing of these remnants increases the economic burden of these factories. The research concluded that the proposed designs achieved a degree of acceptance and success in light of the evaluation averages of my arbitrators. The evaluation of the research referees' specialists in the field of ready-made clothes and the academic specialists in the field of ready-made clothes. The current research has also demonstrated that the proposed designs can be implemented in ready-to-wear factories.

The results of the research are thus a replicable experiment at the industry level to achieve sustainability in the readymade garment industry.

Introduction:

Human beings have been at the center of the definitions presented on sustainable development, as they include human development based on improving health care, education and social welfare. A matter that occupies all institutions and countries of the world, due to the danger posed by fashion waste to the environment, and sustainable development applications in industry are generally considered the clothing industry, in particular, is one of the most

important research axes globally, and many consumers do not think about the waste that their fashion choices may lead to Krista Liebert, a professor of fashion design at RMCAD, saw some of the negative impacts directly caused by the industry when she entered the field as a young designer “The apparel making experience at the start of my career was very open, and textiles are made of all kinds of harmful chemicals,” said Liebert. Which has serious impacts on the environment and the societies in which it is used, and now "Lippert" specializes in sustainable design, and is currently working as a technical designer for Pranav.

Research Problem:

A- What is the possibility of applying the economic dimension of sustainable development in the field of design and production of ready-made clothes?

B- What are the proposed solutions and means of applying them during design to achieve the economic dimension of sustainable development in the field of clothing production? Do these solutions achieve their satisfaction?

C- Can designs for the women's field be proposed that meet the requirements of the economic dimension of sustainable development in line with international trends of fashion?

The research aims:

Promoting Egyptian innovation on the international scene by creating designs for women's clothes that keep pace with international trends of fashion and developing them permanently by achieving their economic dimension.

The research importance:

A- The importance of the study lies in the fact that it deals with study and analysis of one of the important and modern issues that have been discussed since the last decade of the last century. In the field of designing and producing ready-to-wear clothes.

B- Application of the economic dimension of sustainable development in the field of design.

Research hypotheses:

A- The degree of application of the economic dimension of sustainable development in the field of design can be improved by institutions of the ready-made garment industry.

B - Suggested solutions and means of their application used in garment industry establishments can be developed to achieve the economic dimension of sustainable development in the field of design.

T - The possibility of proposing designs for the women's field that meet the requirements of the economic dimension of sustainable development in line with international trends of fashion.

The search limits:

Spatial boundaries: Egyptian manufacturing establishments represented by the Egyptian brand Marie Louis, and Italian manufacturing establishments represented by the Italian brand, Filmar.

Key words:

Innovative - Clothing Design - Economic Dimension – Sustainability

The term sustainable design has appeared in the field of fashion and clothing frequently in recent times, and many studies have been conducted on the imperative of integration between fashion design, pattern design and cut, and the relationship of the two concepts to fabric for a fashion designer to achieve sustainability in fashion through the optimal use of the loss resulting from the manufacturing processes and the waste in the Consumption stage (Caulfield, 2009).


Sustainable clothing: garments that are designed and manufactured with the aim of achieving maximum benefits for humans and society, and minimizing the negative impact resulting from them. (joergens,2006,360-371)

Exhaust and how to take advantage of it, the ready-made garment industry passes through several stages, starting from fabrics until it reaches its final form, and these stages are called stages of manufacturing, and we find that the exhaust and waste resulting from that industry has become an undesirable thing, but it is imperative at any stage of the manufacture of ready-made clothes. (Adel Muhammad 1998-70)

Procedural steps for the research: Through personal interviews with the judges, in order to identify the success of the proposed designs through their opinions after reviewing the current fashion trends and making use of them in an attempt to create new and innovative designs for women's outerwear made of cotton material. Designing the 20 designs and executing the top hits.

Present the innovative design groups and displays results of the questionnaire, a summary of the results.

Schedule (1):

Fifth design	Fourth design	Third design	Second design	First design
				
Tenth design	Ninth design	Eighth design	Seventh design	Sixth design



Conclusions and recommendations:

Through the theoretical part of the research, many conclusions and recommendations were reached, which are the following:

First: The results:

The waste of shearing and straightening can be controlled by using the organic cotton material that can be recycled, it lives for a long time and we find that the production processes have a low impact on the environment as the environment is preserved. It is clear that a certain brand can be transformed into a sustainable one by changing the pattern of cutting and relying on a strategy to take advantage of waste materials used in production at the economic level: Transforming these headers from worthless raw materials to high-value products, as innovative value has been added in employing raw materials to serve the proposed designs.

On the level of sustainability, we find that its application in designs is based on conscious specifications that meet the needs of the consumer in the framework of the quality of clothes at the functional and aesthetic levels, as sustainable design of clothes achieves high-quality consumer standards, and then reduces the chances of disposal.

Second: Research recommendations:

- 1- The necessity of conducting applied studies and research to take advantage of design strategies with an economic dimension of sustainability by making suggested designs suitable for application at the industry level.
- 2-Directing small projects to pay attention to how to make use of the remnants of fabrics and employ them in various fields in general and the field of clothing in particular.
- 3- Study consumer opinions and trends towards the proposed designs, using an economic design strategy.
- 4- Carrying out studies and research for the problems and obstacles that prevent ready-made clothes factories from exploiting the remnants of fabrics and their raw materials.
- 5-The interest of the specialized academic authorities on how to employ the waste of waste fabrics in various fields to serve society and the environment.

Reference:

- 1-Sarhaan, Azza Abd Al Aleem: Ektesadiat Tasniaa Al Malabes Men Awadem Al Masaneaa Wa Mada Takabol Tolab Al Gameaa Lehazehe Al Noayaa Men Al Malabes, Resalet Magester Gheer Manshoora qolyet Al Tarbta Al Noaaya- Gameeat aal Mansoura-2002
 - 2-Zaki, Rania Nabil: Derasat Emkaniat Estekhdam Osloub Al Tashkel Ala Al Manikan Men Khelal Entag Senaay Letanfez Bad Al Malabes Al Sahra Al Harimy ,Resalat Magester , Qoleat Al Eqtesad Al Manzely ,Gamet Al Monofia 2000
 - 3-Abo Mousa, Ehab Fadei: Tasmim Al Azyaa wa Ossosh Al Almya wa Al Fanya Al mosahema Fe Bena Brameg Al Hasseb Al Ally Al Tatbeky,Dar Al Hen Ltebaa 2002.
 - 4-Abd Al Aziz, Zinab Ahmad : Eaadet Tadweer Al Awadem Al Nasgya Al Salba Fe Senaat Al Malabess Al Gahza, Wa Athar zalek Ala al Ganeb Al Beeay Wa Al Eqtesady, Resalet Doktorah Gheer Manshoora – Qolayet Al Tarbya Al Fanya-GameatHelwan 2004.
 - 5-Hassouna, Amr Mohamed Gamal: Eaadet Tadweer Senaet Al Malabes Al Gahza fe Tasmem Al Azyaa ,El Oatamer ElDawly Al Aowal LelDerasat Wa El Bohoos Al Beaya " El Moared Al Tabeaya Wa Al Tanmya Al Mostadama" Maahad El Derasat Wa El Bohoos Al Beaya , Bbahss , Gameaat Al Monofia – Faraa Al Sadat7-9 April 2008.
 - 6-Mohamed, Elham Abd Al Aziz: Tatheer Bad Al Moaglat Al Kemyaia Wa Al Tarakeeb Al Benaeya Ala Bad Al khawass Al Wazefya Llaqmesha Lealag Marda Korah Al Ferash , Resalat Doktorah , Qoleat Al Eqtesad Al Manzely ,Gamet Al Monofia 2010
 - 7-Abd Al aziz , zinab Ahmad: Eaadat Tadweer Al Awadem Al Nesbya Al salba Fe Senaat Al Malabes Al Gahza Wa Athar Zalek Ala Al Ganeb Al biyy Wa Al Aiqtisadiy , , Qoleat Al Eqtesad Al Manzely ,Gamet Al Monofia 2004.
 - 8-Al Hadidi, Adel Mohamed: Al Astefada Men Al Awadem Al Nasgya Fe Masr Fe Tasniaa Al Aqmesha gkyr Al Mansouga, Al goza Al Talet , Al Nagya, Nashret Gher Motakhsesta Tasder An GHorfet Al Senaa Al Nasgya Al Masrya, Adad 298 Septamber 2001.
 - 9-Mohamed, Marowa Abd Al Zaher Ebaid: Dor Al Boud Al beaay Fe Tahqek Al Estedama Fe Masaneaa Al Malabes Al Gahza , Al Foras Wa Al Tahadyat , Resalat Mogyster, , Qolet Al fenon Al tatbeqya , Gameat Helwan 2017.
 - 10-Hessaen, Walaa Ahmad Salem: Tatbyqat Al Estedama Fe Tasmem Mlabes Yolaem Al Sinaeuh Al Mosrya, Resalat Doktorah , Qolet Al fenon Al tatbeqya , Gameat Helwan2019
 - 11-Barak, latefa Mohamed: Moqademah Fe Usus Al Tsmeem Al Nisaiyya ,Ta5, Dar Al Elulum , Al Mansoura 2004.
 - 12-Bawazer, Nagat Salem: Al Moda Wa Fan Ekhtyar AlMalabes , Ta2,Dar Al Fekr Al Araby, Al Qahera 2002.
 - 13- Anguelov .N**, The dirty side of the garment industry: Fast fashion and its negative impact on environment and society, Boca Raton P.45. 2015
 - 14- Allwood .J.M. ,Laursen. S .E. Malvido de Rodriquez. C.Bocken.: N.M.P.** Well Dressed? The Present and Future Sustainability of clothing and Textiles in the United Kingdom: Institute for Manufacturing. University of Cambridge. UK.2006
 - 15- Barnard. M**, Fashion Theory ,an Introduction. Rutledge ,New York 2014
 - 16- Black. S**, The sustainable Fashion Handbook. Thames& Hudson Ltd, London, 2012
<https://arb.majalla.com/2017/11/article5526220017->
<https://arb.majalla.com/2017/11/article5526220018->
-) <https://www.gsa.gov/portal/content/10446219>.