

Using Shabby Chic Style in Contemporary Clothing Accessories to Achieve the Principles of Sustainable Development

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Abstract: The research team is keen to provide a new thinking approach characterized by creativity and innovation to achieve the principles of sustainable development, both environmentally and economically. Thus, the team thought about how to preserve the environment by using worn-out clothes and accessories that are not usable again or through recycling instead of disposing of them permanently in a way that harms the environment while emphasizing the economic aspect and reducing the cost.

The research team invented artworks with an antique touch as accessories to contemporary clothes, based on the Shabby Chic style, which is one of the economical styles that reuses old worn-out items and mixes them with simple modern ones to create an atmosphere of simplicity and elegance. It is a method used in interior design that combines elements of old furniture with simple design, soft colors, and classic touches that give the house a comfortable and attractive atmosphere. This is the reason why the research team applied the rules of this style with clothes and their accessories attempting to provide inexpensive and creative solutions to be the basis of a small successful project that goes with the new trend of entrepreneurship, in line with the events that the whole world is witnessing nowadays; and this is the most prominent goal of the research.

The research followed the descriptive approach with analysis and application. It included a questionnaire to measure the opinions of experts about the suggested designs, and a questionnaire to identify the opinions of consumers about the suggested designs as well.

The findings suggest that Shabby Chic Style could be used to create contemporary designs for clothing accessories that meet the principles of sustainable development and entrepreneurship.

Keywords: Shabby Chic Style - Clothing Accessories - Sustainable Development.

1 Introduction

The “Shabby Chic Style” first appeared in the late 1980s in the decor of rural homes in Britain to revive old pieces of furniture again and give them an aesthetic touch. Then this style quickly spread and became popular in the nineties, and now it returned strongly as a modern Shabby style or what is called New Shabby Chic [1].

The Shabby Chic Style is a vintage style with bright colors called the Antique. It is also called the Victorian style for the Queen of Britain “Victoria” as she was known for using this style. It is produced or manufactured easily from old materials that show signs of wear and tear, in a modern and vintage way that adds beauty to the place with a special flavor. Such style reflects elegance and luxury, it gives a sense of warmth, and it is known as the style of kings. Therefore, the research team opted for using the principles of this style in the research designs [2].

Sustainable development has captured the world's attention in the economic, social, environmental, and global development fields; thus, the research team was interested in pursuing its principles, since it has become a global school of thought embraced by developing and developed countries alike.

Sustainable development requires improving the living conditions of all individuals without increasing the use of natural resources [3]. Sustainable development is defined as development that meets the needs of the present without wasting the ability of future generations to meet their own needs [4]. Clothing Accessories are seen as artworks of great importance in the field of Fashion Design. The relationship between clothes and their accessories is a relationship of part and whole, where the accessory is a part of the clothing that adds to the appearance of the person's glamorous and attractive look, which magically adds the final touch that makes the person unique [5]. Clothing Accessories are also an important element that emphasizes the aesthetics of a uniform through their materials and colors. Unusual materials can result in a strong and new design, in addition to the strength of color, contrast, repetition, or unfamiliar colors that attract attention to the accessory [6].

The research team is keen to provide a new thinking approach characterized by creativity and innovation to achieve the principles of sustainable development, both environmentally and economically. Thus, the team thought about how to preserve the environment by using worn-out clothes and accessories that are not usable again or through recycling instead of disposing of them permanently in a way that harms the environment while emphasizing the economic aspect and reducing the cost.

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Thus, the research team has invented artworks of antique character for contemporary Clothing Accessories using the Shabby Chic Style. This is the reason why the research team applied the rules of this style with clothes and their accessories attempting to provide inexpensive and creative solutions to be the basis of a small successful project that goes with the new trend of entrepreneurship, in line with the events that the whole world is witnessing nowadays. Accordingly, the *research problem* is stated in the following points:

1. What is the possibility of using the Shabby Chic Style to make contemporary Clothing Accessories using worn-out pieces?
2. What is the possibility of making innovative Clothing Accessories that achieve the principles of sustainable development and entrepreneurship?
3. What is the impact of the Shabby Chic Style in enriching the aesthetic values of Clothing Accessories?
4. What is the degree of acceptance of the experts for research designs that used the Shabby Chic Style?
5. What is the degree of acceptance of consumer ladies for research designs that used the Shabby Chic Style?

Research Objectives

1. Highlighting the Shabby Chic Style as a classic vintage artistic style.
2. Creating various designs of Clothing Accessories using the Shabby Chic style.
3. Providing aesthetic solutions for Shabby Chic Clothing Accessories using worn-out clothes.
4. Achieving the principles of sustainable development environmentally and economically in the research designs.
5. Knowing the opinions of the experts in the designs made using the Shabby Chic Style.
6. Knowing the opinions of the consumer ladies in the designs made using the Shabby Chic Style.

Research Importance

1. Highlighting the optimal use of old and worn-out materials.
2. Confronting the high prices of traditional materials by using old and worn-out materials.
3. Enriching the field of Clothing Accessories with new thinking away from stereotyping.
4. Contributing to the creation of space for small projects by supporting the entrepreneurship school.
5. Seeking to achieve the principles of sustainable development environmentally and economically.

Research Methodology

The research follows the descriptive approach analyzing its application suitability to achieve the research objectives.

Research Hypotheses

1. There are statistically significant differences between the twelve implemented Clothing Accessories, in the extent to which the principles and elements of the design are achieved according to the opinions of the experts.
2. There are statistically significant differences between the twelve implemented Clothing Accessories, in the extent of achieving aesthetic and innovative values according to the opinions of the experts.
3. There are statistically significant differences between the twelve implemented Clothing Accessories, in the extent to which functional values are achieved according to the opinions of the experts.
4. There are statistically significant differences between the twelve implemented Clothing Accessories according to the opinions of the experts.
5. There are statistically significant differences between the twelve implemented Clothing Accessories according to the opinions of the consumers.

Research Limitations

1. Objective Limitations: The use of old and worn-out accessories and clothes, which are no longer suitable for use, in making the artworks of the research.
2. Temporal Limitations: The applied aspect of the research was implemented during the academic year 2022/2023. The implemented accessories are suitable nowadays for women in different age groups.
3. Spatial Limitations: Faculty of Home Economics, Department of Clothing and Textile.

Research Sample

1. The Experts: Eleven staff members of the Faculty of Home Economics, Al-Azhar University, and the corresponding colleges.
2. Consumers: Thirty women of the community to get their views regarding the implemented designs.

Research Tools

1. A questionnaire to identify the opinions of the experts about the implemented designs.
2. A questionnaire to identify the opinions of the consumers about the implemented designs.

Research Terminology

Shabby Chic Style: is a shabby elegant style, a form of interior design, a warm and comfortable design through which pieces of furniture are chosen according to the appearance of signs of wear and tear on them. Most importantly, it is a functional way of living in which we can recreate our own homes on a low budget, which is similar to the style of old French farms and huts [7].

Accessories: are additions or pieces that accompany main parts to increase their beauty and splendor, though they are, in themselves, secondary and not essential. Clothing Accessories can increase the beauty and splendor of clothes if added to them in a distinct and elegant style [6].

Clothing Accessories: are all that can be added to the clothing, whether they are connected or separated. They can increase clothes' beauty and elegance, as well as giving them a beautiful attractive appearance. They aim at satisfying the aesthetic desire of the user of such Accessories [8].

Sustainable Development: is the development that meets the needs of the present generation without sacrificing or harming the ability of future generations to meet their needs, which is the constant pursuit to develop the quality of human life taking into account the capabilities of the ecosystem [9].

Consumed Materials: are raw materials that were previously used for various functional purposes, and have become useless for the purpose for which they were essentially manufactured [10].

The consumed raw materials used in this research: are A collection of worn-out garments and accessories that are no longer usable, not even recyclable (procedural definition).

Previous Studies

Studies Related to Clothing Accessories

Many studies have dealt with Clothing Accessories; such as, "Experimental Approaches for Environmental Raw Materials to Produce Clothing Accessories for Innovative Plastic Formulations" [11]. The study aimed at identifying how to use environmental raw materials in the production of new clothing accessories through experimentation with environmental raw materials. It concluded that it is possible to benefit from environmental raw materials in the production of clothing accessories with new plastic formulas. "Using the Remains of Evening Dresses in Making Separate Clothing Accessories" [12]. The study aimed at using the remains of evening dresses to make separate clothing accessories through the design and implementation of separate accessories from such remains [4]. The statistical results indicated the approval and acceptance of the arbitrators and consumers of the designs implemented from separate clothing supplements.

"Benefiting from Filography (String Art) to Enrich the Aesthetic Value of Contemporary Clothing Accessories" [13]. The study aimed to shed light on the plastic, artistic, and aesthetic capabilities of the art of Filography, while overcoming the application obstacles related to different materials (cloth, leather, and other materials), in order to create a variety of contemporary clothing complements with motifs executed by the art of Filography. It concluded that it is possible to take advantage of the art of Filography (String Art) to enrich the aesthetic value of contemporary clothing accessories.

Studies Related to Sustainable Development and Recycling of Residues in the Field of Clothing Accessories

Many studies have focused on achieving sustainable development; such as, "The Role of the Environmental Dimension in Achieving Sustainability in Ready-made Garment Factories" [14]. It studied the current situation of the environmental performance of several garment factories in Egypt and compared it with international standards (i.e. Benchmarking). It developed proposals to raise environmental performance and rationalize resources for Egyptian ready-made garment factories, thus achieving environmental sustainability. The results of the study concluded that most of the cases achieved the highest values when measuring morale in terms of the seriousness of the commitment of senior management to implement environmental policies and procedures within the factory. "Recycling of Cut Remains for Ready-to-Wear Garment Factories to Achieve Sustainable Development" [15]. The study aimed at trying to reach a more accurate yarn thread by mixing chopped cotton (recycled) with polyester in varying proportions and producing clothing products that suit the specific functional purposes for them. It concluded that it is possible to take advantage of the wastes of the garment industry and recycle them to produce usable yarns, fabrics, and clothes.

"Design Treatment of Home Furnishing Accessories Decorated with the Remains of Ready-made Garment Production Supplies to Achieve Sustainability" [16]. The study aimed to provide home furnishing supplements with the remains of the supplies for the production of ready-made garments to achieve sustainability through the implementation of 10 designs for the reception room pillows decorated with the remains of the supplies for the production of ready-made garments using the hand-embroidery method.

Research Theoretical Framework

Shabby Chic Style

The shabby chic style appeared in Britain in the eighties of the twentieth century and was based mainly on the use of old furniture and fabrics, then moved from Britain and became more popular, especially in the United States of America. This style is a result of attempts by global economists to promote trade under stagnant economic conditions, they worked to collect, and process used goods and make them more efficient and then displayed them in stores in order to attract middle-income people. This has led to a rise in the economic level, and it became more popular to buy used goods [17].

Shabby Chic Style was known thanks to the designer Rachel Ashwell, who began to restore furniture after collecting it from flea markets and gave new life to old wardrobes and used furniture while retaining the spirit of antiquity. Then interiors made of a combination of old elements but dyed with new details of the modern era began to appear. (Figure 1) [18]. Nowadays, the Shabby Chic Style has become more attractive to the new generation, often chosen by people who prefer beauty and elegance in the spirit of the past [19].

**Fig. (1)** [18]

Shabby Chic Style in Interior Design

Definition of Shabby Chic Style

It is a style of interior design that combines elements of old furniture with a delicate design, soft colors, floral patterns, and classic touches that give the house a comfortable and attractive atmosphere, and is also known for its use of antique pieces, reusable objects, and old-style inspired fabrics. Figure (2)

**Fig. (2)** [20]

Shabby Chic Style Table

Features of Shabby Chic Style

- faint colors
- old pieces of furniture
- pink fabrics and prints
- vintage-inspired accessories and decorations
- mixed and identical decor elements of different styles and eras
- re-used items with a self-made touch
- natural materials; such as linen, cotton, wood, and wicker
- Shabby Chic Style is also characterized by the use of natural and handmade elements via embroidery techniques, knitwear, or crochet [1].

Colors of Shabby Chic Style: Shabby chic style is known for its soft colors, and the colors used in this style are often varied from pastel colors, light pink, light green, sky blue, light yellow, pale purple, beige, and white. These colors may overlap with each other, taking into account that the colors are as close to white as possible.

Furniture in Shabby Chic Style

Shabby Chic furniture is characterized by its comfortable and quiet style, with a combination of old and modern elements that include commonly used materials; such as, wood, wicker, straw, and metal. It is often characterized by soft pastel colors and simple finishes (5), which are made by painting used furniture pieces with silent shades such as cream, white, or pale pink. Upholstery usually includes floral or faded prints to give an old look. Ornate details also add a touch of sophistication to the overall appearance. Figures (3), (4), and (5) [20].



Fig. (3)



Fig. (4)



Fig (5)

Steps of Turning a Used and Old Piece of Furniture into a Modern Piece in the Shabby Chic Style [20]

The materials in the Shabby Chic Style play an important role as they are used in decorating windows and furniture and are often used as a standalone element. The color of the fabric is a monochrome or floral pattern, and tablecloths with hand embroidery, lace, napkins, and bedding are an essential part of the Shabby chic Style.

Clothing Accessories are the added elements that improve and beautify the appearance, i.e. they are pieces or additions, whether they are accessories that show the model as more elegant. They are affected by several factors when doing their design, the most important of which are the raw materials used in their production, as well as the function that they will perform, and their general idea. Accessories include everything that attracts attention to a specific place; such as, ornaments, headgear, shoes, ribbons, embroidery, bags, belts, and gloves [21].

Clothing Accessories are artworks, not only for the diversity of the works carried out, but for the variety and diversity of the materials used, in addition to the multiple artistic directions to form through artists, where the multiplicity of materials contributed to increasing the creative visions of artists through their work, and the investment of some of the approaches associated with the concepts of using the material [22].

Fashion designers have excelled in creating many different shapes and types that mesh with personal standards and the psychological state that affects the intention to buy clothes and accessories made from reusable materials by consumers, there have also been many studies to understand the behavior of these consumers and the impact of personal standards on their buying motives [23].

For example, a working woman can, in an economic way, innovate in changing her dress appearance by using appropriate accessories. At the same time, she feels aesthetic sensations that satisfy her social, psychological, and economic desires. Figures (6), (7), (8), and (9). Clothing Accessories are applied arts that are affected by everything new in the arts, and every designer can add everything new to these arts to meet the requirements of the times [24].



Fig (6) [25]



Fig (7) [26]



Fig (8)[27]

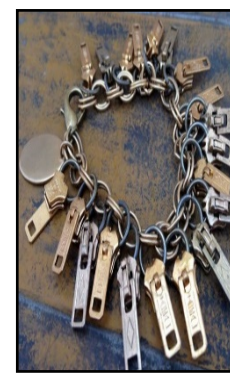


Fig (9) [28]

Clothing Accessories from Economical Materials

Worn out Materials: It means the raw materials that were previously used for multiple functional purposes but have become useless for the purpose for which they were made, and thus are reused in a new function. Although these raw materials are a cheap

source of raw materials used in technical design, they remain unknown and hidden as long as we are unaware of them and their importance - and cannot identify their value and utilization [10].

Various formulations can be used through worn-out raw materials, and the formulations in the art are intended to try to find new works of art based on the use of innovative thought, which depends on finding alternatives and different solutions to the artist's ideas and perceptions to achieve new innovative aspects [29].

Considering the Shabby Chic Style, the researchers found that the worn-out materials are from rich, available, and inexpensive sources, through which many designs of Clothing Accessories can be accessed, which confers novelty and originality to the materials used by reusing them in a contemporary manner, closely related to the economic aspects, and conducting a set of technical and plastic treatments to become re-usable accessories.

When using worn-out materials, full precision, and flexibility must be considered when re-using their parts to reduce the likelihood of damage to the parts during the separation process, which helps to maintain high product quality at low cost, as well as reduce production time [30].

Sustainable Development: It is defined by [31] as an economic term that means the development of means of production in ways that do not lead to the depletion of natural and environmental resources in order to ensure the continuation of production for future generations in the sense of meeting the needs of the current generation without wasting the rights of future generations.

It is also defined by the industrialized countries as a deep and continuous reduction in the consumption of energy and natural resources by these countries, making radical transformations in the prevailing lifestyle and refraining from exporting natural raw materials. Sustainable development, from the point of view of developing countries, means using resources to raise the standard of living of the poorest and most needy populations [32].

The Concept of Sustainability and Its Relationship to the Re-use of Raw Materials

The concept of sustainability emerged in an attempt to preserve the available natural resources and avoid wasting them, and to take advantage of them to the maximum extent possible, the trend was to use environmentally friendly raw materials, as well as reuse worn-out materials that cannot be disposed of without harming the environment.

Thus, it is clear that the concept of sustainability has been applied through the product of this research through the use of worn-out materials without the need for recycling through a set of technical treatments that mesh with the nature of the material re-used to develop accessories characterized by modernity, originality, and sustainability. These concepts are closely related to sustainable development, the main objective of which is to preserve available resources and not waste them, and preserve the resources of future generations.

Sustainable development can also be considered an indirect consumer behavior that affects the intentions of purchasing behavior so that the products are expected to meet the advantages expected by the consumer. One of these advantages, besides the low cost, is the protection of the environment and that the products they buy have value in ensuring industrial sustainability and environmental balance through consumer awareness of environmental problems from a marketing perspective [33], which is what the current research aimed at.




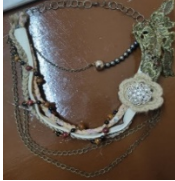
Research Theoretical Framework

















The design and implementation of each piece of design in the research were based on the following steps:

- Assembling many old pieces that can be used and mesh with the Shabby Chic Style, as it is a model more inclined to rubbish or Antica, which was famous recently in the interior design of furniture and not clothes. This is what invited the researchers to take advantage of the principles of this style during the implementation of these pieces. The selected pieces varied between T-shirts, bags, shoes, and accessories that are very old and not suitable for use or recycling again.
- The parts of the consumed pieces were separated with great accuracy and keenness by the researchers in order to get them out intact and not to tear them, especially the hill and Guipure pieces. The consumed accessories were separated into pieces to be re-used again in the implemented designs to give the form of Antica and be contemporary at the same time.
- Many ideas suitable for the design of contemporary clothing accessories have been placed between necklaces and handbags.
- The research team examined the worn-out items to assemble the appropriate pieces for each proposed design very carefully so that an aesthetic product characterized by originality and modernity can finally be obtained by relying on worn-out items that are not usable again in order to achieve the idea of sustainable development of the final designs.
- The techniques of making roses by fabrics were used, so roses were made from satin ribbons and the worn-out tulle fabric was also to be added to the implemented designs.
- Techniques from embroidery and crochet were used to convert old woolen yarns into crochet roses that give an aesthetic shape when added to the design.
- The designs were finished very carefully, and adhesives (hover and silicone wax) were used to glue the metal units, as well as the use of thread and needle to install some pieces of cloth together.
- The research team followed the zero-cost principle to make the accessories for the research. For instance, most of the designs were closed on the neck with strips of cloth so there was no need for locks. Therefore, the implemented designs did not cost the research team anything, as they were finished using items already available in each house, achieving the idea of sustainable development economically and environmentally.

Below is a detailed explanation of the stages of implementation of the designs in pictures (Table 1):

Table 1: The Steps of Implementing the Designs and Their Final Form

Worn-out Parts used in the Design				The Final Look of the Design
 A Turquoise T-shirt made of Lycra	 An Antique Bag Decorated with Metal	 Worn-out Metal Chain	 An Antique Pendant with Turquoise Beads	 Design Number (1)
Design Implementation Steps				
(1)  Making the chain stitches and a half-column crochet stitches using a strip of T-shirt on the metal chain	(2)  Installing beads with metal pieces	(3)  Installing the beads with the metal chain of different lengths		
Design Number (2)				The Final Look of the Design
Worn-out Parts used in the Design				The Final Look of the Design
 A Worn-out Dress made of Tulle and guipure	 An Old Beaded Necklace with a Brooch	 Remains of woolen thread	 Old Metal Chain	 Design Number (2)
Design Implementation Steps				
(1)  Making chains of beads and threads	(2)  Making a crochet rose with the woolen thread	(3)  Install chains together at different lengths	(4)  Installing roses, guipure, and brooches	
Design Number (3)				The Final Look of the Design
Worn-out Parts used in the Design				The Final Look of the Design

 <p>An old metal necklace</p>	 <p>An antique leather bag decorated with a metallic butterfly</p>	 <p>Blouse made of cotton and guipure</p>	 <p>Accessories made of beads and metal</p>	 <p>Design Number (3)</p>
<p>Design Implementation Steps</p>				
<p>(1)</p>  <p>Installing metal pieces on a piece of leather, then installing beads around it</p>	<p>(2)</p>  <p>Installing the beads in circular rows</p>	<p>(3)</p>  <p>Cutting the excess from the large beads</p>	<p>(4)</p>  <p>Attaching a ribbon of guipure to make both ends of the knot</p>	
<p>Design Number (4)</p>				
<p>Worn-out Parts used in the Design</p>		<p>The Final Look of the Design</p>		
 <p>Worn-out Blue Jeans</p>	 <p>A used lycra T-shirt</p>	 <p>Design Number (4)</p>		
<p>Design Implementation Steps</p>				
<p>(1)</p>  <p>Making twisted strips from the T-shirt fabric, 50 cm long, and finishing them with pieces of jeans</p>	<p>(2)</p>  <p>Making a flower from the Jeans</p>	<p>(3)</p>  <p>Making leaves from the lycra & jeans, and strengthening them with Vaseline using an iron</p>	<p>(4)</p>  <p>Pinning the leaf pieces with the rose</p>	
<p>Design Number (5)</p>				
<p>Worn-out Parts used in the Design</p>		<p>The Final Look of the Design</p>		







Brown quilted fleece jacket



Design Number (5)






Design Implementation Steps

(1)	(2)	(3)	(4)
			
Cutting strips from the jacket about 10 cm wide	Making a ruffle line in the middle of the tape	Putting two layers of tapes and forming them on the neck of the mannequin	A tape is wrapped in a circular way to make roses that are fixed on the side of the collie

Design Number (6)


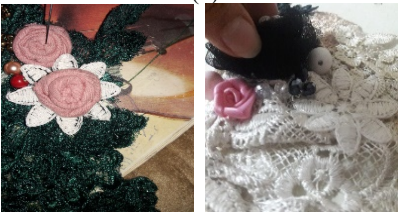
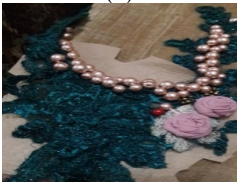

Worn-out Parts used in the Design

The Final Look of the Design

				
Pink lycra T-Shirt	A worn-out linen blouse with guipure	An old shoe decorated with pearls	An old metal necklace	

Design Implementation Steps






Design Number (6)














(1)	(2)	(3)	(4)
			
Preparing roses and assembling the parts of the design	Installing the roses on the cast	Fixing the pearls on the cast	Installing the rest of the pieces to make the final design










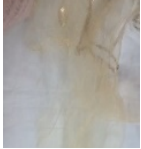







Design Number (7)

Worn-out Parts used in the Design

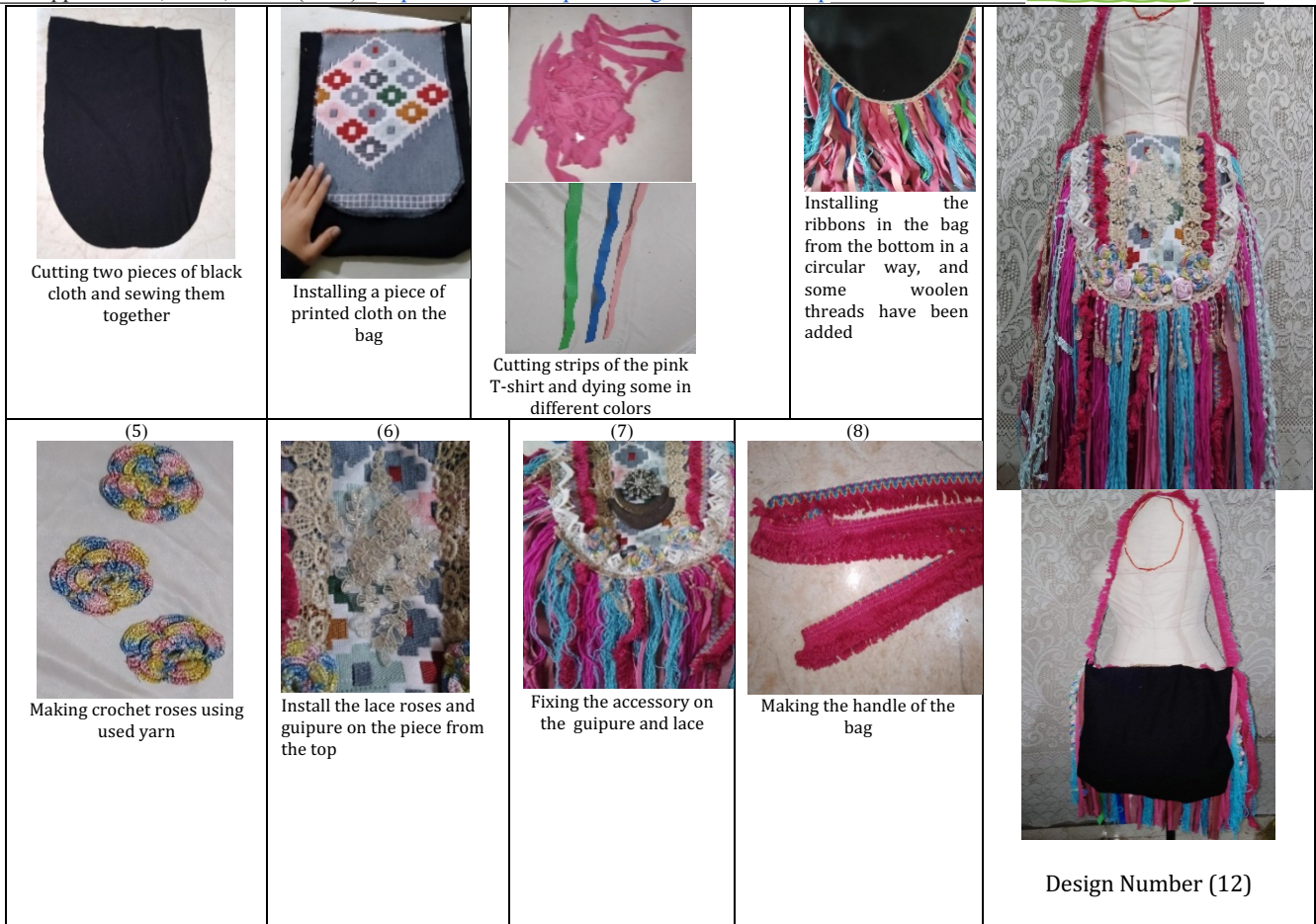
The Final Look of the Design

					
	Old baby shoes				

Lace-trimmed linen blouse	with satin ribbons	An old metal necklace	A used bag of artificial leather	Linen shawl decorated with guipure	
Design Implementation Steps					
<p>(1)</p>  <p>Ruffling the lace ribbon</p>	<p>(2)</p>  <p>Preparing the roses that make up the design</p>	<p>(3)</p>  <p>Installing the roses on the lace in a certain distribution to get the final shape of the design</p>	Design Number (7)		
Design Number (8)					
Worn-out Parts used in the Design					The Final Look of the Design
 <p>Pink lycra T-shirt</p>	 <p>Dark gray T-shirt made of knitwear</p>	 <p>White knitted T-shirt</p>	 <p>White knit T-shirt with black dots</p>	 <p>Light purple lycra T-shirt</p>	
Design Implementation Steps					
<p>(1)</p>  <p>Cutting strips of raw materials to be used in making roses</p>	<p>(2)</p>  <p>Preparing the roses from ribbons of different colors</p>	<p>(3)</p>  <p>Collecting the roses together and arranging them in a specific order to obtain the desired design</p>	Design Number (8)		
Design Number (9)					
Worn-out Parts used in the Design					The Final Look of the Design
 <p>Blue jeans</p>		 <p>White knitted T-shirt</p>			
Design Implementation Steps					
<p>(1)</p>	<p>(2)</p>	<p>(3)</p>			

 <p>Preparing the rose from the jean's fabric</p>	 <p>Preparing the strips of white T-shirt fabric</p>	 <p>Assembling the rose with the ribbons to make the desired design</p>	<p>Design Number (9)</p>		
Design Number (10)					
Worn-out Parts used in the Design					
 <p>Old worn-out shoes with metal accessories</p>	 <p>An old metal necklace</p>	 <p>An old baby shoe with a pearl accessory</p>	 <p>Pink knitted T-shirt</p>	 <p>Design Number (10)</p>	
 <p>Units of pearls</p>	 <p>An old scarf decorated with crystals in different shapes</p>	 <p>Accessories made of beads and metal</p>	 <p>A bag made of chamois, decorated with accessories in the form of leaves</p>		 <p>Leather crossbody bag with metal hardware</p>
Design Implementation Steps					
<p>(1)</p>  <p>Preparing strips of the T-shirt fabric</p>	<p>(2)</p>  <p>Preparing roses of ribbons</p>	<p>(3)</p>  <p>Pinning the roses on an organza ribbon</p>	<p>(4)</p>  <p>Assembling the parts of the accessory</p>		
Design Number (11)					
Worn-out Parts used in the Design					
The Final Look of the Design					

<p>An old piece of dark red chamois</p>	<p>A collection of old metal accessories</p>		<p>An old belt made of braided leather straps inlaid with colored beads</p>	<p>Design Number (11)</p>
<p>A collection of old straps Design Implementation Steps</p>				
<p>(1) </p>	<p>(2) </p>	<p>(3) </p>	<p>(4) </p>	<p>(5) </p>
<p>Design Number (12)</p>				
<p>Worn-out Parts used in the Design</p>				<p>The Final Look of the Design</p>
<p>(1) </p>	<p>(2) </p>	<p>(3) </p>	<p>(4) </p>	
<p>Design Implementation Steps</p>				
<p>(1)</p>	<p>(2)</p>	<p>(3)</p>	<p>(4)</p>	



- Conducting a questionnaire for the designs submitted for arbitration by experts, which were 11 arbitrators. The questionnaire included three axes: the first axis was the extent to which the principles and elements of design were achieved, the second axis was innovative and aesthetic values, and the third axis was functional values.
- Making the necessary statistical analysis to validate the research hypotheses and access its results.

Discussion

Validity and Reliability

Experts' Assessment Questionnaire to measure their opinions about the accessories:

Validity of the Questionnaire:

The ability of a questionnaire to measure what it is designed to measure.

Validity of the Internal Consistency:

- 1- Calculating the correlation coefficients between the score of each of the constituent phrases for each axis, and the total score of the axis in the questionnaire.
- 2- Calculating the correlation coefficients between the total score for each of the axes of the questionnaire and the total score of the questionnaire.

First aspect: The extent to which the principles and elements of design are achieved:

Validity was calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the score of each statement and the score of the axis (the extent to which the principles and elements of the design were achieved), and the following table (Table 2) shows this:

Table 2: Values of Correlation Coefficients between the Score of Each Statement (The extent to which the principles and elements of design are achieved)

#	Correlation	Significance
1.	0.793	0.01
2.	0.889	0.01
3.	0.732	0.01
4.	0.607	0.05

5.	0.916	0.01
6.	0.767	0.01
7.	0.634	0.05
8.	0.859	0.01

It is clear from the table that the correlation coefficients are all indicative at the level of (0.01 – 0.05) to approach the correct one, which indicates the validity and homogeneity of the questionnaire statements.

Second Axis: Aesthetic Values

Validity was calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the score of each statement and the score of the axis (innovative and aesthetic values), and the following table (Table 3) shows this:

Table 3: Values of the Correlation Coefficients between the Score of Each Statement and the Score of the Axis (aesthetic and innovative values)

#	Correlation	Significance
1.	0.706	0.01
2.	0.612	0.05
3.	0.821	0.01
4.	0.946	0.01
5.	0.861	0.01
6.	0.643	0.05
7.	0.777	0.01

It is clear from the table that the correlation coefficients are all indicative at the level of (0.01 – 0.05) to approach the correct one, which indicates the validity and homogeneity of the questionnaire statements.

Theme 3: Functional Values:

Validity was calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the score of each statement and the score of the axis (functional values), and the following table (Table 4) shows this:

Table 4: Values of the Correlation Coefficients between the Score of Each Statement (Functional Values)

#	Correlation	Significance
1.	0.808	0.01
2.	0.714	0.01
3.	0.899	0.01
4.	0.629	0.05
5.	0.606	0.05
6.	0.952	0.01
7.	0.744	0.01

It is clear from the table that the correlation coefficients are all indicative at the level of (0.01 – 0.05) to approach the correct one, which indicates the validity and homogeneity of the questionnaire statements.

Validity using internal consistency between the overall score of each axis and the overall score of the questionnaire:

Validity was calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the total score of each axis (the extent to which the principles and elements of the design were achieved, the innovative and aesthetic values, and the functional values), and the total score of the questionnaire, and the following table (Table 5) shows this:

Table 5: Values of the Correlation Coefficients between the Score of Each Axis (the extent to which the principles and elements of the design were achieved, the innovative and aesthetic values, and the functional values), and the Overall Score of the Questionnaire

	Correlation	Significance
First Axis: the extent to which the principles and elements of the design were achieved	0.838	0.01
Second Axis: the innovative and aesthetic values	0.724	0.01

Third Axis: the functional values	0.781	0.01
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It is clear from the table that the correlation coefficients are all indicative at the level of (0.05) to approach the correct one, which indicates the validity and homogeneity of the questionnaire axes.

Reliability

Reliability means the accuracy of the test in measurement and observation, its non-contradiction with itself, its consistency, and the information it provides about the behavior of the examiner, which is the ratio between the score variation on the questionnaire that indicates the actual performance of the examiner, and reliability was calculated by:

1. Alpha Cronbach
2. Split-half Method (Table 6)

Table 6: Reliability Coefficient Values for the Axes of the Experts' Questionnaire

Axes	Alpha Cronbach	Split-half Method
First Axis: the extent to which the principles and elements of the design were achieved	0.934	0.962 – 0.901
Second Axis: the innovative and aesthetic values	0.778	0.806 – 0.745
Third Axis: the functional values	0.856	0.881 – 0.827
The Reliability of the Experts' Questionnaire as a Whole	0.813	0.844 – 0.789

It is clear from the previous table that all the values of the reliability coefficients: Alpha Coefficient and Split-half Method are significant at the level of 0.01, which indicates the reliability of the questionnaire.

Consumers' Assessment Questionnaire to measure their opinions about the accessories:

Reliability of the Questionnaire

The ability of a questionnaire to measure what it is designed to measure.

Reliability of the Internal Consistency:

Calculating the correlation coefficients between the score of each of the constituent phrases for the questionnaire, and the total score of the questionnaire.

Reliability was calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the score of each statement and the total score of the questionnaire, and the following table (Table 7) shows this:

Table 7: Values of Correlation Coefficients between the Score of Each Statement and the Total Score of the Questionnaire

#	Correlation	Significance
1.	0.631	0.05
2.	0.921	0.01
3.	0.784	0.01
4.	0.843	0.01
5.	0.759	0.01
6.	0.960	0.01
7.	0.905	0.01
8.	0.644	0.05

It is clear from the table that the correlation coefficients are all significant at the level of (0.01 – 0.05) to approach a whole one, which indicates the validity and homogeneity of the questionnaire statements.

Reliability

Reliability means the accuracy of the test in measurement and observation, its non-contradiction with itself, its consistency, and the information it provides about the behavior of the examiner, which is the ratio between the score variation on the questionnaire that indicates the actual performance of the examiner, and reliability was calculated by:

1. Alpha Cronbach
2. Split-half Method (Table 8)

Table 8: Reliability Coefficient Values for the Consumers' Assessment Questionnaire to Measure their Opinions about the Accessories

	Alpha Cronbach	Split-half Method
Reliability of the Questionnaire as a whole	0.891	0.921 – 0.862

It is clear from the previous table that all the values of the reliability coefficients: Alpha Coefficient and Split-half Method are significant at the level of 0.01, which indicates the reliability of the questionnaire.

Research Results

The First Hypothesis

There are statistically significant differences between the twelve implemented Clothing Accessories, in the extent to which the principles and elements of the design are achieved according to the opinions of the experts.

To verify this hypothesis, the variance was calculated for the average scores of the twelve accessories implemented, in the extent to which the principles and elements of design were achieved according to the opinions of the experts, and the following tables illustrate this:

Table 9: Variance Analysis of the Average Scores of the Twelve Accessories Implemented, in the extent to which the principles and elements of design are achieved according to the opinions of experts

the extent to which the principles and elements of design are achieved	sum of squares	mean of squares	degrees of freedom	P-Value	Significance
Between Groups	80357.134	7305.194	11	65.361	Significant at 0.01
Within Groups	13412.038	111.767	120		
Total Score	93769.172		131		

It is clear from Table 9 that the p-value was (65.361), which is a statistically significant value at the level of (0.01), which indicates that there are differences between the twelve accessories implemented, in achieving the principles and elements of design according to the opinions of experts, and to know the direction of significance, the LSD test was applied for multiple comparisons and the following table (Table 10) shows this:

Table 10: LSD Test for Multiple Comparisons

the extent to which the principles and elements of design are achieved	Acc. "1" = 10.318	Acc. "2" = 37.000	Acc. "3" = 8.141	Acc. "4" = 16.698	Acc. "5" = 24.550	Acc. "6" = 39.741	Acc. "7" = 30.119	Acc. "8" = 21.381	Acc. "9" = 13.025	Acc. "10" = 28.563	Acc. "11" = 34.863	Acc. "12" = 8.847
Acces. 1	-											
Acces. 2	26.681**	-										
Acces. 3	*2.176	28.858**	-									
Acces. 4	*6.379*	20.301**	*8.556*	-								
Acces. 5	14.231**	12.450**	16.408**	*7.851*	-							
Acces. 6	29.423**	*2.741	31.600**	23.043**	15.191**	-						
Acces. 7	19.800**	*6.881*	21.977**	13.420**	*5.569*	*9.622*	-					
Acces. 8	11.063**	15.618**	13.240**	*4.683*	*3.168*	18.360**	*8.737*	-				
Acces. 9	*2.706	23.974**	*4.883*	*3.672*	11.524**	26.716**	17.093**	*8.356*	-			
Acces. 10	18.245**	*8.436*	20.421**	11.865**	*4.013*	11.178**	1.555	*7.181*	15.538**	-		
Acces. 11	24.545**	*2.136	26.721**	18.165**	10.313**	*4.878*	*4.744*	13.481**	21.838**	*6.300*	-	

Acces. 12	1.471	28.152 **	0.705	*7.850 *	15.702 **	30.894 **	21.271 **	12.534 **	*4.178 *	19.716 **	26.016 **	-
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**Significant at 0.01 * Significant at 0.05 without stars Not Significant

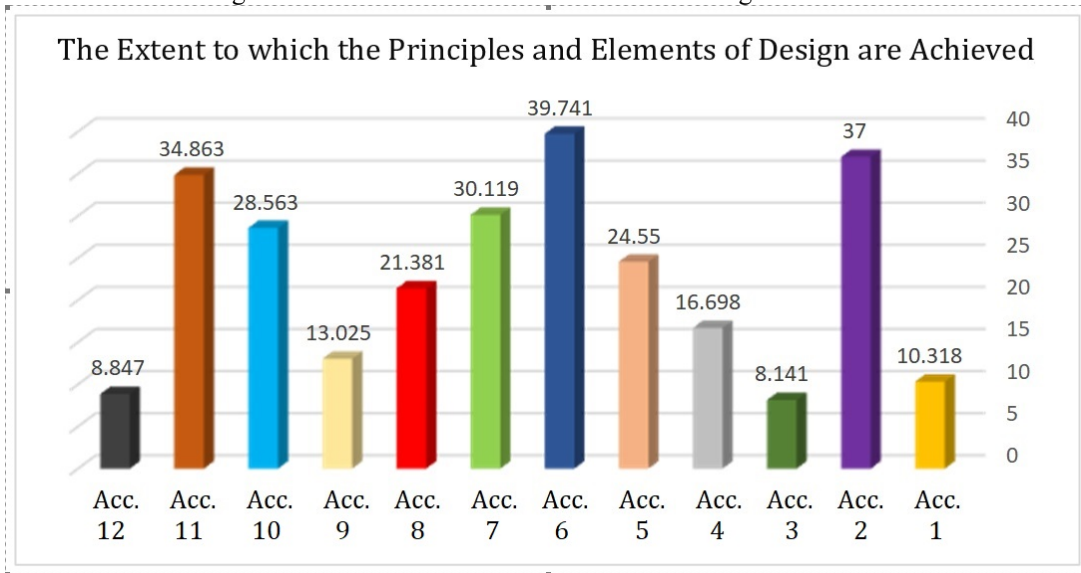


Fig. 10: The Average Scores of the Twelve Accessories Implemented, in the Extent to which the Principles and Elements of Design are Achieved, According to the Opinions of Experts

From Table 10 and Figure 10 it is clear that:

1. There are statistically significant differences between the twelve accessories implemented at the significance level of 0.01. We find that accessory 6 was the best in achieving the principles and elements of design according to the opinions of experts, followed by accessory 2, then accessory 11, then accessory 7, then accessory 10, then accessory 5, then accessory 8, then accessory 4, then accessory 9, then accessory 1, then accessory 12, and finally accessory 3.
2. There are also differences at the significance level of 0.05 between accessory 1 and accessory 3 in favor of accessory 1, differences at the significance level of 0.05 between accessory 1 and accessory 9 in favor of accessory 9, differences at the significance level of 0.05 between accessory 2 and accessory 6 in favor of accessory 6, and differences at the significance level of 0.05 between accessory 2 and accessory 11 in favor of accessory 2.
3. While there are no differences between accessory 1 and accessory 12, there are no differences between accessory 3 and accessory 12, and there are no differences between accessory 7 and accessory 10.

The Second Hypothesis

There are statistically significant differences between the twelve accessories implemented, in the extent of achieving aesthetic and innovative values according to the opinions of the experts.

To verify this hypothesis, the variance was calculated for the average scores of the twelve accessories implemented, in the extent of achieving aesthetic and innovative values according to the opinions of the experts, and the following tables illustrate this:

Table 11: Variance analysis of the average scores of the twelve accessories implemented, in the extent of achieving aesthetic and innovative values according to the opinions of experts

Aesthetic and innovative values	sum of squares	mean of squares	degrees of freedom	P-Value	Significance
Between Groups	14099.298	1281.754	11	20.738	Significant at 0.01
Within Groups	7416.687	61.806	120		
Total Score	21515.985		131		

It is clear from Table 11 that the p-value was (20.738), which is a statistically significant value at the level of (0.01), which indicates that there are differences between the twelve accessories implemented, in the extent of achieving aesthetic and innovative values according to the opinions of experts, and to know the direction of significance, the LSD test was applied for multiple comparisons and the following table (Table 12) shows this:

Table 12: LSD Test for Multiple Comparisons

Aesthetic and innovative values	Acc. "1" = 9.259	Acc. "2" = 34.752	Acc. "3" = 7.363	Acc. "4" = 10.875	Acc. "5" = 30.161	Acc. "6" = 25.460	Acc. "7" = 32.718	Acc. "8" = 27.912	Acc. "9" = 16.440	Acc. "10" = 19.929	Acc. "11" = 21.373	Acc. "12" = 12.840
Acc. "1"	-											
Acc. "2"	25.493**	-										
Acc. "3"	1.895	27.389**	-									
Acc. "4"	1.616	23.877**	*3.511*	-								
Acc. "5"	20.902**	*4.590*	22.798**	19.286**	-							
Acc. "6"	16.200**	*9.292*	18.096**	14.584**	*4.701*	-						
Acc. "7"	23.459**	*2.034	25.354**	21.842**	*2.556	*7.258*	-					
Acc. "8"	18.653**	*6.840*	20.549**	17.037**	*2.249	*2.452	*4.805*	-				
Acc. "9"	*7.181*	18.311**	*9.077*	*5.565*	13.720**	*9.019*	16.277**	11.471**	-			
Acc. "10"	10.670**	14.823**	12.565**	*9.053*	10.232**	*5.530*	12.789**	*7.983*	*3.488*	-		
Acc. "11"	12.114**	13.379**	14.009**	10.497**	*8.788*	*4.086*	11.344**	*6.539*	*4.932*	1.444	-	
Acc. "12"	*3.580*	21.912**	*5.476*	1.964	17.321**	12.620**	19.878**	15.072**	*3.600*	*7.089*	*8.533*	-

**Significant at 0.01

* Significant at 0.05

without stars Not Significant

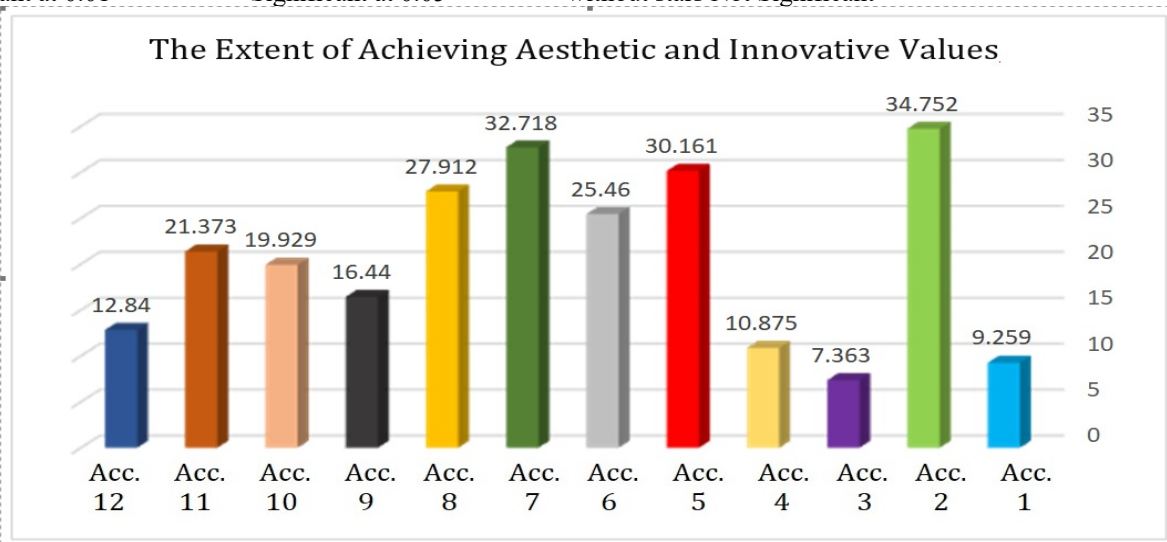


Fig. 11: The Average Scores of the Twelve Accessories Implemented, in the Extent of Achieving Aesthetic and Innovative Values, According to the Opinions of Experts

From Table 12 and Figure 11, it is clear that:

1. There are statistically significant differences between the twelve accessories implemented at the significance level of 0.01. We find that accessory 2 was the best in the extent of achieving aesthetic and innovative values according to the opinions of experts, followed by accessory 7, then accessory 5, then accessory 8, then accessory 6, then accessory 11, then accessory 10, then accessory 9, then accessory 12, then accessory 1, then accessory 1, and finally accessory 3.
2. There are also differences at the significance level of 0.05 between accessory 2 and accessory 7 in favor of accessory 2, differences at the significance level of 0.05 between accessory 5 and accessory 7 in favor of accessory 7, differences at the

significance level of 0.05 between accessory 5 and accessory 8 in favor of accessory 8.

- While there are no differences between accessory 1 and accessory 3, there are no differences between accessory 1 and accessory 4, and there are no differences between accessory 10 and accessory 11.

The Third Hypothesis

There are statistically significant differences between the twelve accessories implemented, in the extent to which functional values are achieved according to the opinions of the experts.

To verify this hypothesis, the variance was calculated for the average scores of the twelve accessories implemented, in the extent to which functional values are achieved according to the opinions of the experts, and the following tables illustrate this:

Table 13: Variance analysis of the average scores of the twelve accessories implemented, in the extent to which functional values are achieved according to the opinions of experts

Functional Values	sum of squares	mean of squares	degrees of freedom		P-Value	Significance
Between Groups	9812.423	892.038	11		30.118	Significant at 0.01
Within Groups	3554.151	29.618	120			
Total Score	13366.574		131			

It is clear from Table 13 that the p-value was (30.118), which is a statistically significant value at the level of (0.01), which indicates that there are differences between the twelve accessories implemented, in the extent to which functional values are achieved according to the opinions of experts, and to know the direction of significance, the LSD test was applied for multiple comparisons and the following table shows this:

Table 14: LSD Test for Multiple Comparisons

Functional Values	Acc. "1" = 11.410	Acc. "2" = 32.750	Acc. "3" = 16.953	Acc. "4" = 21.955	Acc. "5" = 34.865	Acc. "6" = 31.442	Acc. "7" = 27.009	Acc. "8" = 28.518	Acc. "9" = 19.073	Acc. "10" = 24.822	Acc. "11" = 13.998	Acc. "12" = 8.582
Acc. "1"	-											
Acc. "2"	21.34**0	-										
Acc. "3"	5.542**	15.79**7	-									
Acc. "4"	10.54**4	10.79**5	5.001**	-								
Acc. "5"	23.45**4	2.114*	17.91**1	12.91**0	-							
Acc. "6"	20.03**1	1.308	14.48**9	9.487**	3.422**	-						
Acc. "7"	15.59**8	5.741**	10.05**5	5.053**	7.856**	4.433**	-					
Acc. "8"	17.10**7	4.232**	11.56**4	6.562**	6.347**	2.924*	1.509	-				
Acc. "9"	7.662**	13.67**7	2.120*	2.881*	15.79**1	12.36**9	7.935**	9.444**	-			
Acc. "10"	13.41**1	7.928**	7.869**	2.867*	10.04**2	6.620**	2.186*	3.695**	5.749**	-		
Acc. "11"	2.587*	18.75**2	2.955*	7.957**	20.86**7	17.44**4	13.01**0	14.52**0	5.075**	10.82**4	-	
Acc. "12"	2.828*	24.16**8	8.371**	13.37**2	26.28**2	22.86**0	18.42**6	19.93**5	10.49**1	16.24**0	5.415**	-

**Significant at 0.01

* Significant at 0.05

without stars Not Significant

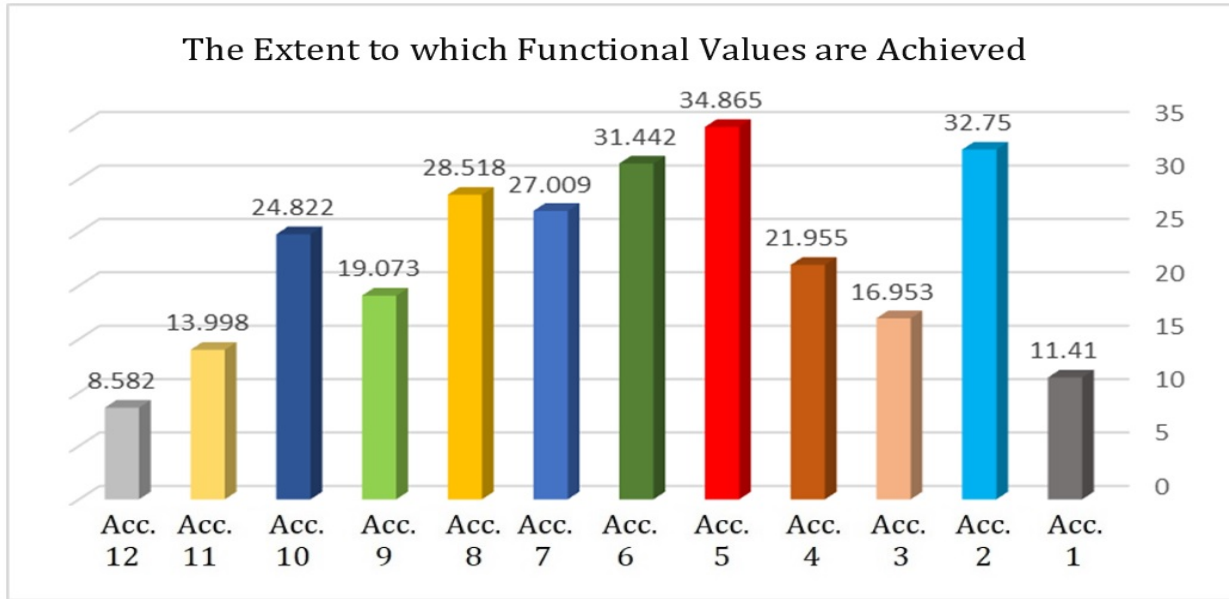


Fig. 12: The Average Scores of the Twelve Accessories Implemented, In the Extent to which Functional Values are Achieved According to the Opinions of Experts

From Table 14 and Figure 12, it is clear that

1. There are statistically significant differences between the twelve accessories implemented at the significance level of 0.01. We find that accessory 5 was the best in the extent to which functional values are achieved according to the opinions of experts, followed by accessory 2, then accessory 6, then accessory 8, then accessory 7, then accessory 10, then accessory 4, then accessory 9, then accessory 3, then accessory 1, then accessory 1, and finally accessory 12.
2. Differences exist at the significance level of 0.05 between accessory 1 and accessory 11 in favor of accessory 11. Differences exist at the significance level of 0.05 between accessory 1 and accessory 12 in favor of accessory 1. Differences exist at the significance level of 0.05 between accessory 2 and accessory 5 in favor of accessory 5. Differences exist at the significance level of 0.05 between accessory 3 and accessory 9 in favor of accessory 9. Differences exist at the significance level of 0.05 between accessory 3 and accessory 11 in favor of accessory 3. Differences exist at the significance level of 0.05 between accessory 4 and accessory 9 in favor of accessory 4. Differences exist at the significance level of 0.05 between accessory 6 and accessory 8 in favor of accessory 6. Differences exist at the significance level of 0.05 between accessory 7 and accessory 10 in favor of accessory 7.
3. While there are no differences between accessory 2 and accessory 6, there are no differences between accessory 7 and accessory 8.

The Fourth Hypothesis

There are statistically significant differences between the twelve accessories implemented, according to the opinions of the experts.

To verify this hypothesis, the variance was calculated for the average scores of the twelve accessories implemented, according to the opinions of the experts, and the following tables illustrate this:

Table 15: Variance Analysis of the Average Scores of the Twelve Accessories Implemented, According to the Opinions of the Experts

Total Scores "Experts"	sum of squares	mean of squares	degrees of freedom	P-Value	Significance
Between Groups	8338.513	758.047	11	50.248	Significant at 0.01
Within Groups	1810.346	15.086	120		
Total Score	10148.859		131		

It is clear from Table 15 that the p-value was (50.248), which is a statistically significant value at the level of (0.01), which indicates that there are differences between the twelve accessories implemented, according to the opinions of experts, and to know the direction of significance, the LSD test was applied for multiple comparisons and the following table (Table 16) shows this:

Table 16: LSD Test for Multiple Comparisons

Total Scores "Experts"	Acc. "1" = 30.990	Acc. "2" = 104.503	Acc. "3" = 32.459				Acc. "4" = 49.529	Acc. "5" = 89.577	Acc. "6" = 96.644	Acc. "7" = 89.845	Acc. "8" = 77.812	Acc. "9" = 48.540	Acc. "10" = 73.315 =	Acc. "11" = 70.234	Acc. "12" = 30.269
Acc. "1"	-														
Acc. "2"	73.51**2	-													
Acc. "3"	1.468	72.04**4	-												
Acc. "4"	18.53**8	54.97**4	17.07**0				-								
Acc. "5"	58.58**6	14.92**6	57.11**8				40.048**	-							
Acc. "6"	65.65**3	7.859**	64.18**5				47.115**	*7.067*	-						
Acc. "7"	58.85**4	14.65**8	57.38**6				40.316**	0.268	*6.799*	-					
Acc. "8"	46.82**1	26.69**0	45.35**3				28.283**	11.764**	18.831**	*12.032*	-				
Acc. "9"	17.54**9	55.96**3	16.08**0				0.989	41.037**	48.104**	*41.305*	29.272**	-			
Acc. "10"	42.32**4	31.18**8	40.85**6				23.786**	16.261**	23.329**	*16.530*	*4.497*	24.775**	-		
Acc. "11"	39.24**3	34.26**9	37.77**5				20.705**	19.342**	26.410**	*19.610*	*7.578*	21.694**	**3.080	-	
Acc. "12"	0.721	74.23**4	2.190*				19.260**	59.308**	66.375**	*59.576*	47.543**	18.2*70*	**43.046	39.96**5	-

**Significant at 0.01 * Significant at 0.05 without stars Not Significant

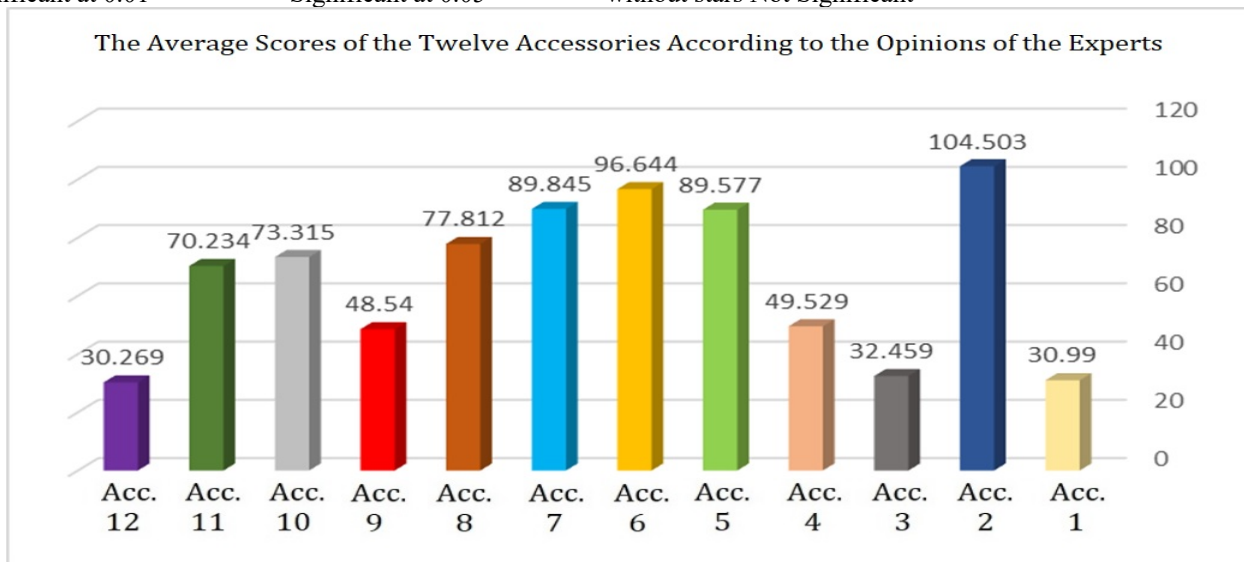


Fig. 13: The Average Scores of the Twelve Accessories Implemented, According to the Opinions of the Experts

From Table 16 and Figure 13 it is clear that:

1. There are statistically significant differences between the twelve accessories implemented at the significance level of 0.01. We find that accessory 2 was the best according to the opinions of experts, followed by accessory 6, then accessory 7, then accessory 5, then accessory 8, then accessory 10, then accessory 11, then accessory 4, then accessory 9, then accessory 1, then accessory 12.

2. There are also differences at the significance level of 0.05 between accessory 3 and accessory 12 in favor of accessory 3.
3. While there are no differences between accessory 1 and accessory 3, there are no differences between accessory 1 and accessory 12, and there are no differences between accessory 5 and accessory 7.

The Fifth Hypothesis:

There are statistically significant differences between the twelve accessories implemented, according to the opinions of the consumers.

To verify this hypothesis, the variance was calculated for the average scores of the twelve accessories implemented, according to the opinions of the consumers, and the following tables illustrate this:

Table 17: Variance Analysis of the Average Scores of the Twelve Accessories Implemented, According to the Opinions of the Consumers

Total Score "Consumers"	sum of squares	mean of squares	degrees of freedom	P-Value	Significance
Between Groups	34456.423	3132.402	11	47.417	Significant at 0.01
Within Groups	22989.332	66.061	348		
Total Score	57445.755		359		

It is clear from Table 17 that the p-value was (47.417), which is a statistically significant value at the level of (0.01), which indicates that there are differences between the twelve accessories implemented, according to the opinions of consumers, and to know the direction of significance, the LSD test was applied for multiple comparisons and the following table shows this:

Table 18: LSD Test for Multiple Comparisons

Total Score "Consumers"	Acc. "1" = 12.540	Acc. "2" = 36.653	Acc. "3" = 15.784	Acc. "4" = 19.189	Acc. "5" = 20.936	Acc. "6" = 34.376	Acc. "7" = 39.828	Acc. "8" = 28.124	Acc. "9" = 9.989	Acc. "10" = 30.353	Acc. "11" = 23.400	Acc. "12" = 8.606
Acc. "1"	-											
Acc. "2"	24.11**3	-										
Acc. "3"	3.244**	20.86**9	-									
Acc. "4"	6.649**	17.46**4	3.405**	-								
Acc. "5"	8.396**	15.71**6	5.152**	1.747	-							
Acc. "6"	21.83**6	2.276*	18.59**2	15.18**7	13.44**0	-						
Acc. "7"	27.28**8	3.175**	24.04**4	20.63**9	18.89**1	5.451**	-					
Acc. "8"	15.58**4	8.528**	12.34**0	8.935**	7.188**	6.251**	11.70**3	-				
Acc. "9"	2.550*	26.66**4	5.794**	9.200**	10.94**7	24.38**7	29.83**9	18.13**5	-			
Acc. "10"	17.81**3	6.300**	14.56**9	11.16**4	9.416**	4.023**	9.475**	2.228*	20.36**4	-		
Acc. "11"	10.86**0	13.25**3	7.616**	4.211**	2.463*	10.97**6	16.42**8	4.724**	13.41**1	6.953**	-	
Acc. "12"	3.933**	28.04**7	7.177**	10.58**3	12.33**0	25.77**0	31.22**2	19.51**8	1.383	21.74**7	14.79**4	-

**Significant at 0.01

* Significant at 0.05

without stars Not Significant

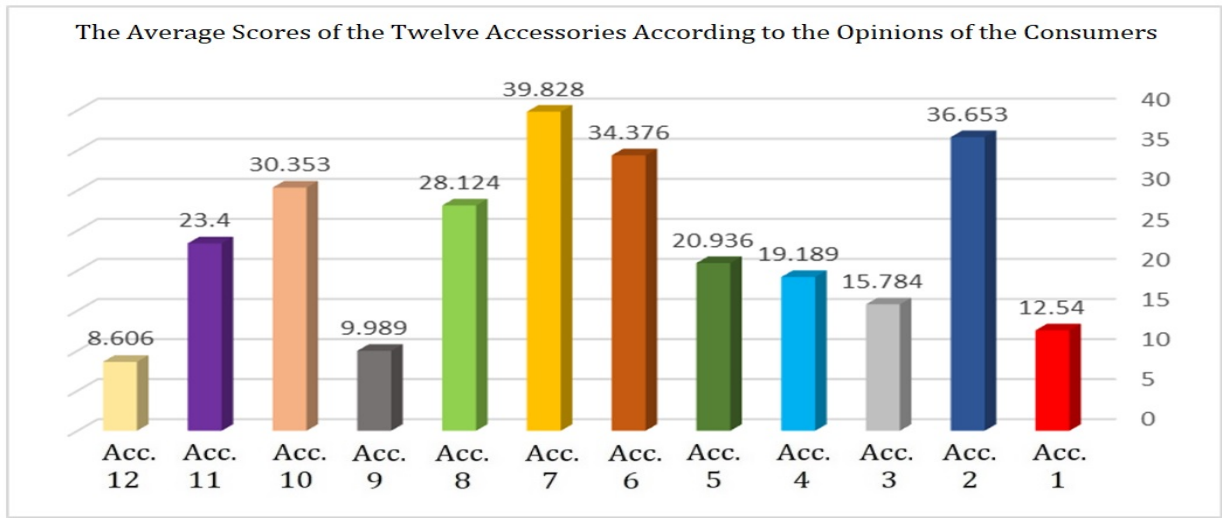


Fig.14: The Average Scores of the Twelve Accessories, According to the Opinions of the Consumers

From Table 18 and Figure 14, it is clear that:

1. There are statistically significant differences between the twelve accessories implemented at the significance level of 0.01. We find that accessory 7 was the best according to the opinions of consumers, followed by accessory 2, then accessory 6, then accessory 10, then accessory 8, then accessory 11, then accessory 5, then accessory 4, then accessory 3, then accessory 1, then accessory 9, and finally accessory 12.
2. There are also differences at the significance level of 0.05 between accessory 1 and accessory 9 in favor of accessory 1, differences at the significance level of 0.05 between accessory 2 and accessory 6 in favor of accessory 2, differences at the significance level of 0.05 between accessory 5 and accessory 11 in favor of accessory 11, and differences at the significance level of 0.05 between accessory 8 and accessory 10 in favor of accessory 10.
3. While there are no differences between accessory 4 and accessory 5, there are no differences between accessory 9 and accessory 12.

Research Results and Discussion

Through the discussion of the statistical results and the previous presentation of the implemented designs, the possibility of reusing old and worn-out materials to implement contemporary Clothing Accessories that mesh with the nature of the materials used. The best designs from the point of view of experts were in order from the highest degree to the lowest as follows:

Accessory 2, followed by accessory 6, accessory 7, accessory 5, accessory 8, accessory 10, accessory 11, accessory 4, accessory 9, accessory 3, accessory 1, and finally accessory 12.

According to the opinions of consumers, accessory 7 was the best, followed by accessory 2, then accessory 6, then accessory 10, then accessory 8, then accessory 11, then accessory 5, then accessory 4, then accessory 3, then accessory 1, then accessory 9, and finally accessory 12.

Asking the arbitrators, the consumers, and the research team about the reasons for choosing the highest designs, the answer came as follows:

- The implemented designs were characterized by simplicity in the design lines and colors, each design had its distinctive shape from the rest of the designs, which positively affected the opinions of the arbitrators.
- A variety of worn-out raw materials were used and processed by simple and inexpensive technical methods according to the nature of each raw material, and mixing raw materials was also possible. The implemented designs bear the qualities of modernity, originality, and sustainability, which is consistent with the study [11] and the study [12].
- The designs implemented are suitable for women, of different ages, on multiple occasions, and at very low cost.
- The success of the implementation of designs using the Shabby Chic Style, where worn-out materials were used with a new vision in which the beauty of the form, ease of implementation, low price, and most importantly, contribution to achieving sustainable development were achieved, which is consistent with the study [14] and the study [15].

Recommendations

1. Conducting more research that is concerned with the application of the Shabby Chic Style in various fields to achieve development.
2. Delivering courses and introductory programs for the Shabby Chic Style targeting students of specialization and small business

owners.

3. Guiding designers and workers in the field of clothing and accessories about the importance of innovative thinking to give multiple solutions that enrich the field.
4. Opening fields for new businesses through achieving sustainability in other fields.

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Appendices

Appendix (1) Experts' Assessment Questionnaire to measure their opinions about the accessories.

Appendix (2) Consumer' Assessment Questionnaire to measure their opinions about the accessories.

Appendix (3) Arbitrators of the Questionnaire.

Appendix No. (1)

Experts' Assessment Questionnaire

to Measure their Opinions about the Accessories

Axes of the questionnaire	Design No. ()				
	Excellent	Very good	Good	Moderate	Poor
First: The extent to which the principles and elements of design are achieved					
1. Unity and interconnection of accessory parts					
2. Ratio and proportion between the parts of the accessory					
3. Compatibility and harmony among the raw materials used in the accessory					
4. Decorative lines suitability to the accessory					
5. Structural lines suitability to the accessory					
6. Raw materials suitability to the accessory					
7. Color consistency in the accessory					
8. The overall form of the accessory is distinctive					
Second: Innovative and Aesthetic Values					
1. The shabby chic style can be used in the implementation of contemporary clothing accessories					
2. The shabby chic style fits with the accessory design					
3. The design is in line with the general taste					
4. The design is in line with contemporary fashion trends					
5. Shabby chic style helped to create designs for unfamiliar accessories					
6. Shabby chic style added aesthetic value to the accessory					
7. The design is distinct from the accessories available in the market					
Third: Functional Values					
1- The design achieves the desired economic value					
2- The design achieves the principles of sustainable development					

3- Shabby chic style has successfully created a new look for the accessory by using worn-out materials that are neither usable nor recyclable					
4- The design is suitable for many occasions for the girl and the modern woman					
5- The design is suitable for finishing methods, which achieve quality in use					
6- The accessory is a product that can be marketed					
7- The accessory contributed to raising awareness of the importance of sustainable development					

The questionnaire was graded as follows:

- Excellent: 5 marks
- Very good: 4 marks
- Good: 3 marks
- Moderate: 2 marks
- Weak: 1 mark

Appendix No. (2)
Consumers' Assessment Questionnaire
to Measure their Opinions about the Accessories

Axes of the questionnaire:	Design No. ()		
	Convenient	Somehow Convenient	Inconvenient
1. The design suits my taste.			
2. I would buy the design and wear it.			
3. The design goes with fashion trends.			
4. The design is an innovation in the field of fashion and accessories.			
5. The design performs its purpose in use.			
6. The design is different from similar accessories available in the market.			

The questionnaire was graded as follows:

- Convenient 3 marks
- Somehow Convenient 2 marks
- Inconvenient 1 mark

Appendix No. (3)

Arbitrators of the Questionnaire

Name	Degree
Prof. Walaa Ali Diab	Emeritus Professor and Former Head of Clothing and Textile Department – and Chairman of the Scientific Committee for Promotions – Faculty of Home Economics – Al-Azhar University
Prof. Fayrouz Abu Al-Fotouh Al-Jamal	Emeritus Professor and Former Head of Textile Department – Faculty of Applied Arts – Damietta University
Prof. Ashraf Abdel Hakim Hassan Nouredine	Professor of Fashion Design - Department of Clothing and Textile - Faculty of Home Economics – Helwan University
Prof. Ihab Fadel Abu Moussa	Professor of Fashion Design - Department of Clothing and Textile - Faculty of Home Economics – Menoufia University
Prof. Ola Yousef Abdullah	Professor of Fashion Design - Department of Clothing and Textile - Faculty of Home Economics - Menoufia University

Prof. Nashwa Abdel Raouf Tawfiq	Professor of Fashion Design - Department of Clothing and Textile - Faculty of Home Economics- Helwan University
Prof. Amr Jamal Hassouna	Professor of Fashion Design - Department of Clothing and Textile - Former Head of Ready-To-Wear Clothing - Faculty of Applied Arts – Helwan University
Prof. Huda Mohammed Sami Ghazi	Professor of Fashion Design - Department of Clothing and Textile - Faculty of Home Economics- Menoufia University
Prof. Walid Shaaban Mostafa Ramadan	Professor and Head of the Department of Leather Industries - Faculty of Home Economics – Helwan University
Assistant Prof. Enas Esmat Abdel Rahim	Assistant Professor of Fashion Design - Department of Clothing and Textile - Faculty of Home Economics – Helwan University
Assistant Prof. Fatima Al-Saeed Median	Assistant Professor in the Department of Clothing and Textile – Faculty of Home Economics - Al-Azhar University