

## **Creating designs from semantics of NEOM logo to enrich the field of furnishings by using computers**

**By**

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### **Abstract**

The research aims to create designs from the semantics of the NEOM logo, in a way that enriches the aesthetic value of the furnishings using the computer, and determining the degree of acceptance by specialists of the furnishings designs from the semantics of the NEOM logo. The research followed the analytical descriptive approach with the applied study. The research sample consisted of (20) distributed among specialists, meaning (professors, associate professors, and assistant professors) to know their opinions and evaluations towards the proposed designs in terms of aesthetic, functional and innovative aspects. And, the tools included an arbitration form for the proposed designs from the specialists. It was found that it is possible to benefit from the semantics of NEOM logo to enrich the design of the furnishings and to reach new aesthetic and utilitarian values for the furnishings that are characterized by innovation and modernity.

**Keywords:** furnishings – computer

### **Introduction**

Design is creativity and a color of the culture's colors, and a scale of society's prosperity because it is a result of the designer's sense and his interaction with all aspects of life, so the design expresses the culture of the designer and the society emerging from it. Also, it is a universal language that is no less important than the language of speaking, as each of them has its own vocabulary to deliver a message intended by the designer in his different products. (Al-Sayed et al., 2021)

Furnishings fabrics are considered one of the most important types of fabrics that the textiles industry produces and presents to the consumer public. And, it takes a great interest of precision and care in its production due to its quality in performance and appearance commensurate with their uses. (Matar, 2010)

And with the rapid technical development, computer design programs have contributed to facilitating the designer's work in terms of time and effort, keeping copies that can be modified, and given an opportunity for the designer to be creative and innovative in the light of technical concepts, foundations and elements of design.

### **Research problem**

Furnishings will have an artistic value, if they have designs that are employed in an aesthetic, creative and functional way, and in order for furnishings designs to become a successful work of art, the motifs must be carefully chosen, and the sources of obtaining the decorative design varied, including familiar and unfamiliar motifs, in which many people be interested in furnishings with unfamiliar and innovative motifs and drawings in terms of their colors, shapes, and the nature of the drawings on them. so we must keep pace with this development in the modern era, especially in the field of furnishings design and the emergence of many modern

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design skills, the most prominent of which is the skill of using the computer, and benefiting from what technology provides as modern computer programs in producing design works that characterized with the creativity. This prompted the researcher to create designs from the semantics of the NEOM logo and employ them to enrich the field of furnishings using computers.

Based on the above, the research problem can be formulated in the following questions:

- 1- What is the possibility of studying the semantics of NEOM logo, which can be used in the design of the furnishings fabrics?
- 2- What is the possibility of creating designs that are quoted from the semantics of the NEOM logo, in order to enrich the aesthetic value of the furnishings by using computers?
- 3- What is the degree of acceptance of the specialists of the furnishings designs that created from the semantics of NEOM logo?

## **Research importance**

This research may contribute to:

- 1 - Shedding light on the formal semantics of NEOM logo; to be a source for designing motifs that enrich the field of furnishings.
- 2 - Highlighting the role of computers as one of the necessities of the age and technological progress in the various technical fields of the specialized colleges.
- 3 - Attempting to present a new style of furnishings designs that is suitable for productive projects to support the national economy in light of the Kingdom's accession to the World Trade Organization, and to open new horizons in the field of furnishings design.

## **Research hypotheses**

- 1- There are statistically significant differences among the five designs in achieving the aesthetic aspect according to the specialists' opinions.
- 2- There are statistically significant differences among the five designs in achieving the functional aspect according to the specialists' opinions.
- 3- There are statistically significant differences among the five designs in achieving the innovation and creativity according to the specialists' opinions.
- 4- There are statistically significant differences among the five designs in achieving the distinction and modernity according to the specialists' opinions.
- 5- There are statistically significant differences among the five designs in colors consistency according to the specialists' opinions.
- 6- There are statistically significant differences among the five designs according to the specialists' opinions.

## **Research tools**

- 1- The semantics of NEOM logo.
- 2- The "Photoshop" program to create new designs for furnishings fabrics.

## **Research methodology**

The research follows the analytical descriptive approach with the applied study due to their relevance to reach the results of the research and answer its questions, and verify its

objectives by describing the semantics of NEOM and analyzing them with applying in preparing designs and employing them on furnishings.

## Research sample

The research sample consisted of the following:

There are 20 items distributed according to the research variables to the specialists, meaning Masters (professors, associate professors, and assistant professors) to know their opinions and evaluations regarding the proposed designs.

## Research objectives

- 1- Identifying the formal significance of the NEOM logo that can be benefit in ornamenting the furnishings.
- 2- Creating designs derived from the semantics of the NEOM logo, in a way that enriches the aesthetic value of the furnishings, using computers.
- 3- Determining the degree of acceptance of the specialists for the furnishings designs from the semantics of NEOM logo.

## Research terms

Creating: A group of attempts made by creative artists, writers, and poets to quote and trace the impact of the early people and their attempts, to find a state of mood through which they show the experiences of others from the predecessors in their creations (Al-Kinani, 2011AD)

Significance: that whatever is inferred. Semantics: is an intended formative meaning (Al Qasimi, 2005 AD).

NEOM: It is the ambitious vision of the Kingdom of Saudi Arabia that will shape the future, a Saudi project for a city that is planned to be built, and it is a project within the framework of the ambitious aspirations of 2030 to transform the Kingdom to a leading global model in various aspects of life. <https://www.neom.com/ar-sa/about>

Furnishings: a term that includes all types of fabrics used in covering seats in general, walls, making curtains, and making bed linens, such as damask fabrics and most types of jacquard fabrics in general (Ramadan, 2002 AD)

## The theoretical framework of the research

### *The formal semantics of the NEOM logo:*

The logo that was designed in the form of (star) carries several semantics:

- The first side: It is the world that preserves the nature and gives it the attention that the elements of life deserve on this planet. This is a symbol of a star of (NEOM) in one of its sides.
- The second side: Symbolizes technology and programming, which sits on the throne of the reality of the world and leads the fourth industrial revolution towards the future.
- The third side: It carried the cultural message of (NEOM), which it embodied in building a pioneering city in supporting the cultural path of a part of that world that humanity aiming.

- The fourth side: It designed in form of a solar cell, which symbolizes the huge investment in the energy projects and plans to rely on it as a major source of energy within the city.
- The fifth side: Carries a picture of a colored imprint. It is a civilized message that authorizes openness to the identities of the world, with its culture and colors. And make its dreams come true.

These sides that were contained and included in the (NEOM) logo are formal semantics that explain the meanings and contents that reflect the idea of the NEOM project, and the humanity is trying to build it to carry their dreams and hopes.

<https://twitter.com/neom/status/948955944754573318?lang=ar>

A textile designer needs to have an artistic taste and a good understanding of color, basics, and design elements (Wilson, 2001). A textile designer works on creating designs on paper or a computer, often as a repetitive design to cover the width and length of a fabric in yardage to produce knitted or printed textiles.

The use of digital technology in design has led to a transition to a new era, where design processes are implemented in a shorter time, less effort, and higher quality. Digital design was distinguished by making the adjustments and retaining a lot of designs (Hammouda et al., 2017 AD), as Adobe presents several design programs such as Photoshop and Illustrator, and it is considered an ideal platform for textile design (Bowles & Lsaac, 2012).

The study of Abu Al-Asaad (2020 AD) emphasized the relation among the printed design of the furnishing fabrics, marketing, the problems facing the designer and the marketer, which have become an obstacle to the progress of this industry because it is rapidly progressing and due to the lack of planning for appropriate marketing programs that serve the goal of developing and innovating the design. The study recommended that the concept of designing the printed furnishings fabrics should be linked to the results of studies and research that related to marketing.

As well as, the study of Qutb (2001AD) aimed to study the computer as a modern tool and technology that works to help the textile printing designer in achieving the best results, as well as to achieve the relation between textile printing design and the structural design of the costume, with giving the designer the opportunity to see many designs with the possibility of making change and modification quickly and ease.

The study of Nour El-din (2010 AD) aimed to encourage young technical cadres to establish small projects and productive families in the field of furnishings, and contributing to finding some appropriate solutions to the obstacles facing productive families in the field of furnishings, developing and activating the role of small industries and productive families in order to advance the wheel of the economic development, and employing some plant motifs and fabrics residues in making some furnishings. The study concluded that it is possible to employ plant motifs in designing some furnishings and achieve aesthetic and artistic benefits by employing the decorative units to design furnishings from fabrics residues, where it was found that there is consistency between the fabrics residues and the functional purpose of the furnishings, and some productive families benefited from producing some furnishings at the lowest possible cost.

The study of Charles Frimpong, et al (2013) aimed to identify the most important contemporary trends in designing the textiles and fabrics in Ghana, specifically in the production of Adinkra symbols), which their designs were made famous in the world. The study followed the descriptive analytical approach in describing and analyzing the most important of these trends, and the study concluded that the design of fabrics and textiles in Africa, specifically in Ghana, is inspired by African symbols that define Africa's identity and


the cultural heritage in it. Also, the inspiration of African symbols was not an inspiration without modification, as modern technologies were introduced in making mix between the symbols of African culture and technological innovations in harmony and integrating way.

From the previous, it is clear that innovation should be invested in the field of fabrics design from local motifs related to Vision 2030 projects to support the national economy, marketing and advertising for the future projects.

## Methods and procedures

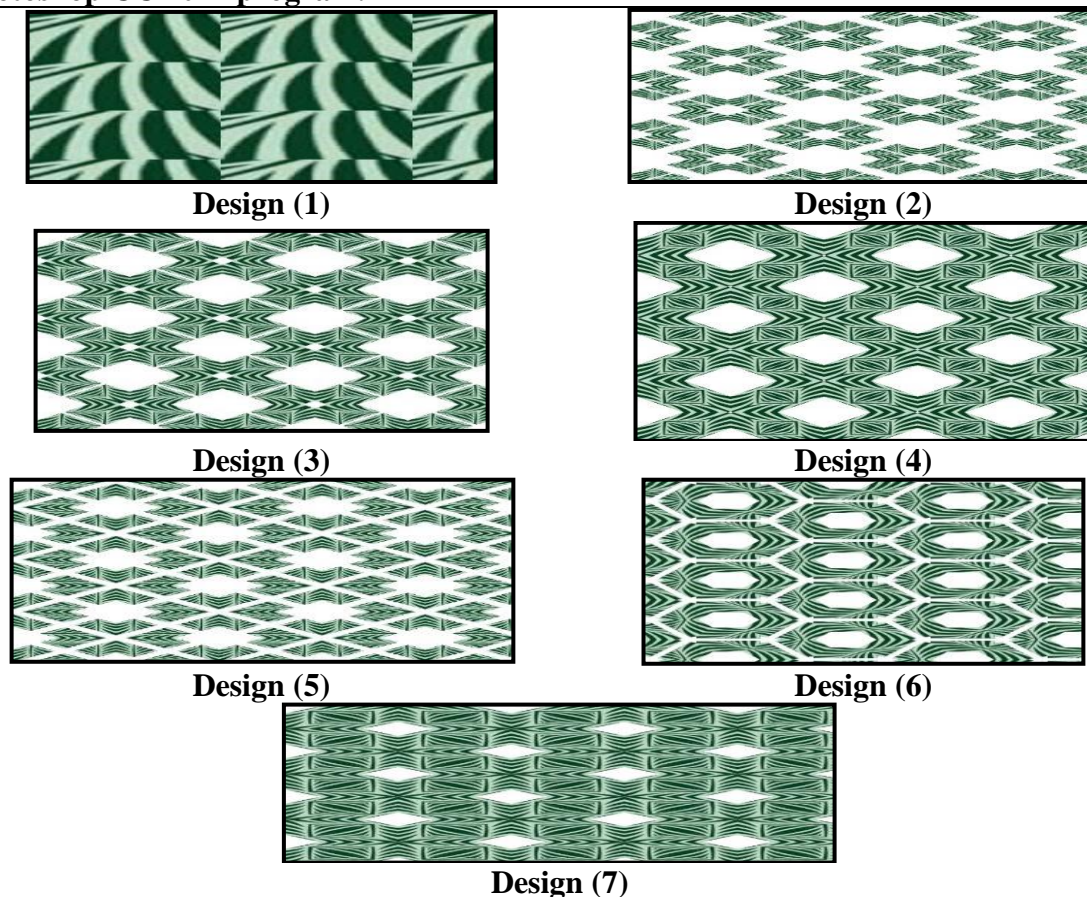
Preparing a proposed set of designs for the furnishings fabrics by using the semantics of the NEOM logo and implementing them on suggested designs, the researcher prepared 25 designs using the Adobe Photoshop CC 2022 program, and they were presented to specialists to determine the degree of acceptance by specialists for the furnishings designs from the semantics of the NEOM logo.

**Table (1)**

Part of NEOM logo	The formal semantic of this part
	<p>The world that preserves the nature and gives it the attention that the elements of life deserve on this planet.</p>
<p>Nature (palms)</p>	

**Table (2)**

**Results of designs for printed fabrics from the semantics of NEOM logo using Adobe Photoshop CC 2022 program.**



Employing some textiles designs printed from nature on furnishings

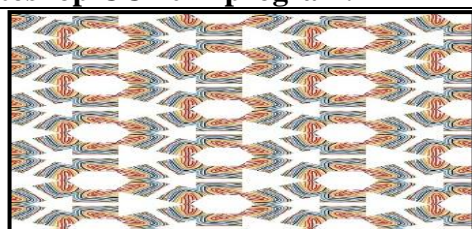


**Table (3)**

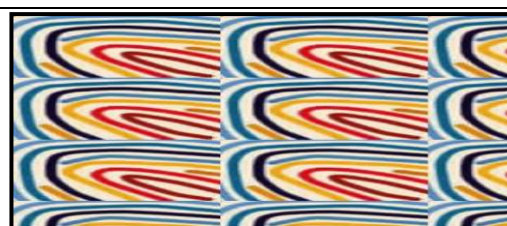
Part of NEOM logo	The formal semantic of this part
	<p>Carries a picture of a colored imprint, it is a civilized message that authorizes openness to the identities of the world, with its culture and colors, and makes its dreams come true in them.</p>
<p><b>Affluent living</b></p>	

**Table (4)**

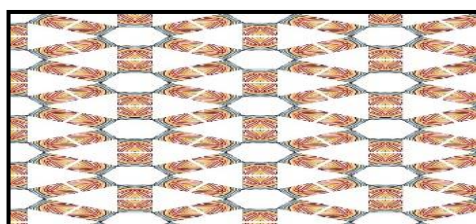
Results of designs for printed fabrics from the semantics of NEOM logo by Adobe Photoshop CC 2022 program.



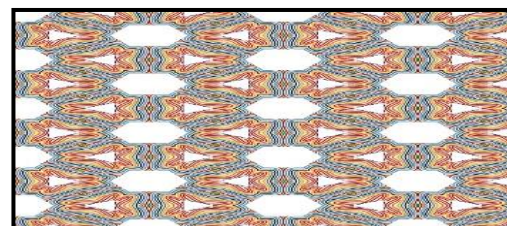
**Design (8)**



**Design (9)**



**Design (10)**




**Design (11)**

Employing some textiles designs printed from the affluent living on furnishings

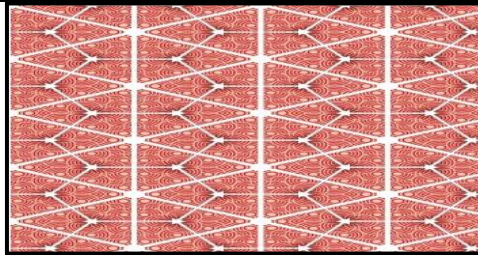


**Table (5)**

Part of NEOM logo	The formal semantic of this part
	<p>It carried the cultural message of (NEOM), which it embodied in building a pioneering city in supporting the cultural path of a part of that world that humanity aiming.</p>
<p><b>Society</b></p>	

**Table (6)**

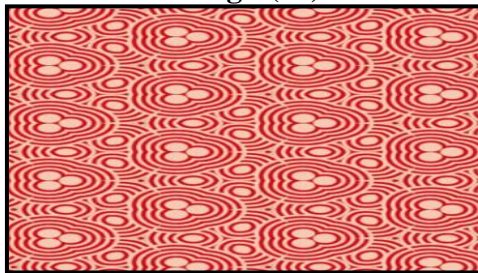
**Results of designs for printed fabrics from the semantics of NEOM logo using Adobe Photoshop CC 2022 program.**



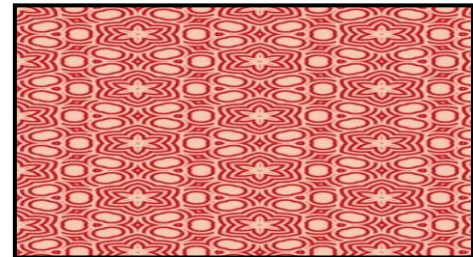
**Design (12)**



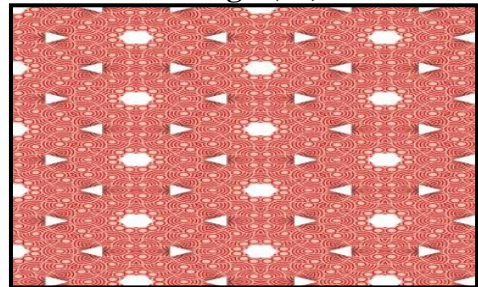
**Design (13)**



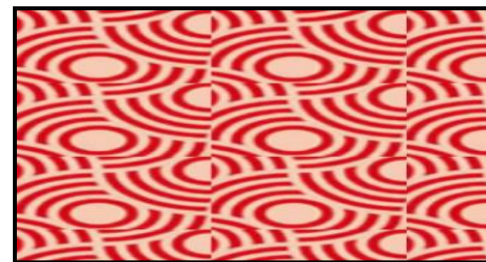
**Design (14)**



**Design (15)**



**Design (16)**

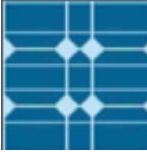


**Design (17)**

Employing some textiles designs printed from society on furnishings

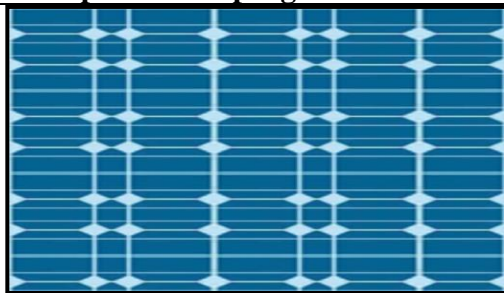


**Table (7)**

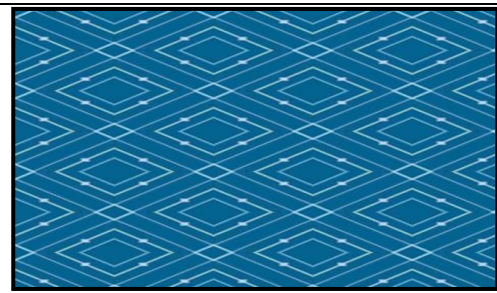
Part of NEOM logo	The formal semantic of this part
	<p>It designed in form of a solar cell, which symbolizes the huge investment that the project intends to pump in the clean energy and rely on it as the main source of energy within the city.</p>
<p><b>Sustainability</b></p>	

**Table (8)**

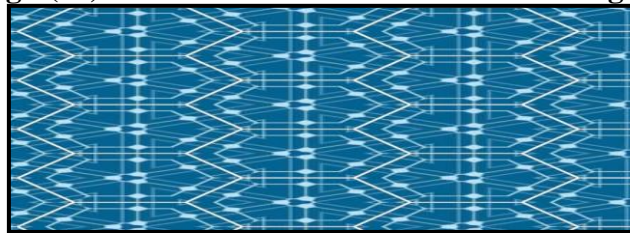
**Results of designs for printed fabrics from the semantics of NEOM logo using Adobe Photoshop CC 2022 program.**



**Design (18)**



**Design (19)**




**Design (20)**

Employing some textiles designs printed from sustainability on furnishings



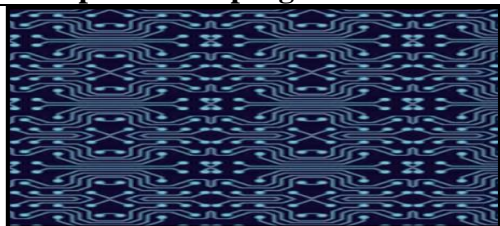
**Table (9)**

Part of NEOM logo	The formal semantic of this part
	<p>Symbolizes technology and programming, which sits on the throne of the global investments today and leads the fourth industrial revolution towards the future.</p>
<p><b>Technology</b></p>	

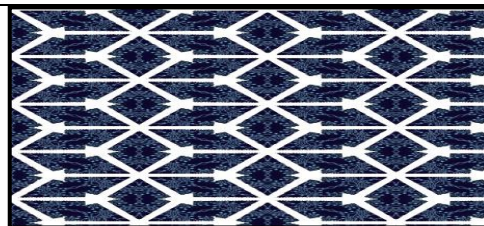


**Table (10)**

**Results of designs for printed fabrics from the semantics of NEOM logo using Adobe Photoshop CC 2022 program.**



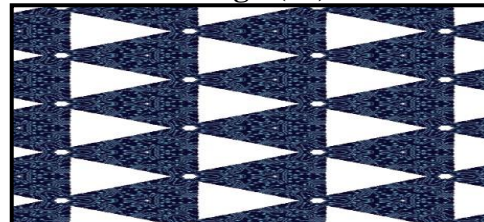
**Design (21)**



**Design (22)**



**Design (23)**



**Design (24)**



**Design (25)**

**Employing some textiles designs printed from technology on furnishings**



## **Sincerity and Reliability**

*A questionnaire of evaluating the created designs from semantics of NEOM logo to enrich the field of Furnishings:*

***Sincerity of the questionnaire:***

It means the ability of the questionnaire to measure what it was put to measure it.

***Sincerity of the internal consistency:***

- 1- Calculating the correlation coefficients between the degree of each phrase of the phrases that make up each axis, and the total degree of the axis in the questionnaire.
- 2- Calculating the correlation coefficients between the total degree for each axis of the questionnaire and the total degree in the questionnaire.

***The first axis: the aesthetic aspect:***

Sincerity has been calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the degree of each phrase and the degree of the axis (the aesthetic aspect), and the following table shows that:

**Table (11)** *values of the correlation coefficients between the degree of each phrase and the degree of the axis (the aesthetic aspect)*

S		Significance
1-	0.814	0.01
2-	0.777	0.01
3-	0.623	0.05
4-	0.849	0.01
5-	0.908	0.01

It is clear from the table that all the correlation coefficients are significant at the level (0.01- 0.05) because they are close to the whole one, which indicates the validity and homogeneity of the questionnaire phrases.

***The second axis: the functional aspect:***

Sincerity has been calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the degree of each phrase and the degree of the axis (the functional aspect), and the following table shows that:

**Table (12)** *values of the correlation coefficients between the degree of each phrase and the degree of the axis (the functional aspect)*

S		Significance
1-	0.914	0.01
2-	0.746	0.01
3-	0.722	0.01
4-	0.607	0.05
5-	0.874	0.01

It is clear from the table that all the correlation coefficients are significant at the level (0.01- 0.05) because they are close to the whole one, which indicates the validity and homogeneity of the questionnaire phrases.

***The third axis: the innovation and creativity:***

Sincerity has been calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the degree of each phrase and the degree of the axis (the innovation and creativity), and the following table shows that:

**Table (13)** *values of the correlation coefficients between the degree of each phrase and the degree of the axis (the innovation and creativity)*

S		Significance
1-	0.633	0.05
2-	0.808	0.01
3-	0.960	0.01
4-	0.764	0.01
5-	0.851	0.01

It is clear from the table that all the correlation coefficients are significant at the level (0.01- 0.05) because they are close to the whole one, which indicates the validity and homogeneity of the questionnaire phrases.

***The fourth axis: the distinction and modernity:***

Sincerity has been calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the degree of each phrase and the degree of the axis (the distinction and modernity), and the following table shows that:

**Table (14)** values of the correlation coefficients between the degree of each phrase and the degree of the axis (the distinction and modernity)

S		Significance
1-	0.888	0.01
2-	0.933	0.01
3-	0.718	0.01
4-	0.641	0.05
5-	0.615	0.05

It is clear from the table that all the correlation coefficients are significant at the level (0.01- 0.05) because they are close to the whole one, which indicates the validity and homogeneity of the questionnaire phrases.

***The fifth axis: colors consistency:***

Sincerity has been calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the degree of each phrase and the degree of the axis (**colors consistency**), and the following table shows that:

**Table (15)** values of the correlation coefficients between the degree of each phrase and the degree of the axis (colors consistency)

S		Significance
1-	0.794	0.01
2-	0.620	0.05
3-	0.826	0.01
4-	0.735	0.01
5-	0.951	0.01

It is clear from the table that all the correlation coefficients are significant at the level (0.01- 0.05) because they are close to the whole one, which indicates the validity and homogeneity of the questionnaire phrases.

***Sincerity by using the internal consistency between the total degree of each axis and the total degree of the questionnaire:***

Sincerity has been calculated using internal consistency by calculating the correlation coefficient (Pearson correlation coefficient) between the total degree of each axis ( The aesthetic aspect, the functional aspect, the innovation and creativity, the distinction and modernity, colors consistency) and the total degree of the questionnaire, and the following table shows this:

**Table (16)** values of the correlation coefficients between the total degree of each axis and the total degree of the questionnaire

	Correlations	Significance
The first axis: the aesthetic aspect	0.751	0.01
The second axis: the functional aspect	0.867	0.01
The third axis: the innovation and creativity	0.892	0.01
The fourth axis: the distinction and modernity	0.830	0.01
The fifth axis: colors consistency	0.782	0.01

It is clear from the table that all the correlation coefficients are significant at the level (0.01) because they are close to the whole one, which indicates the validity and homogeneity of the questionnaire axes.

## Reliability

Reliability means the accuracy of the application in the measurement and observation, and it does not a contradiction with itself, and its consistence with what it providing us with information about the examiner's behavior, and it is the ratio between the variance of the degree on the questionnaire that indicates the actual performance of the examiner, and the reliability has been calculated by:

- 1- Alpha Cronbach coefficient
- 2- Split-half method

**Table (17)** values of the reliability coefficient of the questionnaire axes

Axes	Alpha coefficient	Split-half
The first axis: the aesthetic aspect	0.791	0.768 – 0.824
The second axis: the functional aspect	0.924	0.891 – 0.953
The third axis: the innovation and creativity	0.876	0.844 – 0.909
The fourth axis: the excellence and modernity	0.741	0.710 – 0.777
The fifth axis: colors consistency	0.915	0.886 – 0.942
Reliability of the questionnaire as whole	0.849	0.812 – 0.875

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

## Research results

### *The first hypothesis:*

"There are statistically significant differences among the five designs in achieving the aesthetic aspect according to the specialists' opinions".

To investigate this hypothesis, an analysis of variance was calculated for the mean degrees of the five designs in achieving the aesthetic aspect according to the specialists' opinions, and the following tables show that:

**Table (18)** an analysis of variance for the mean degrees of the five designs in achieving the aesthetic aspect, according to the specialists' opinions

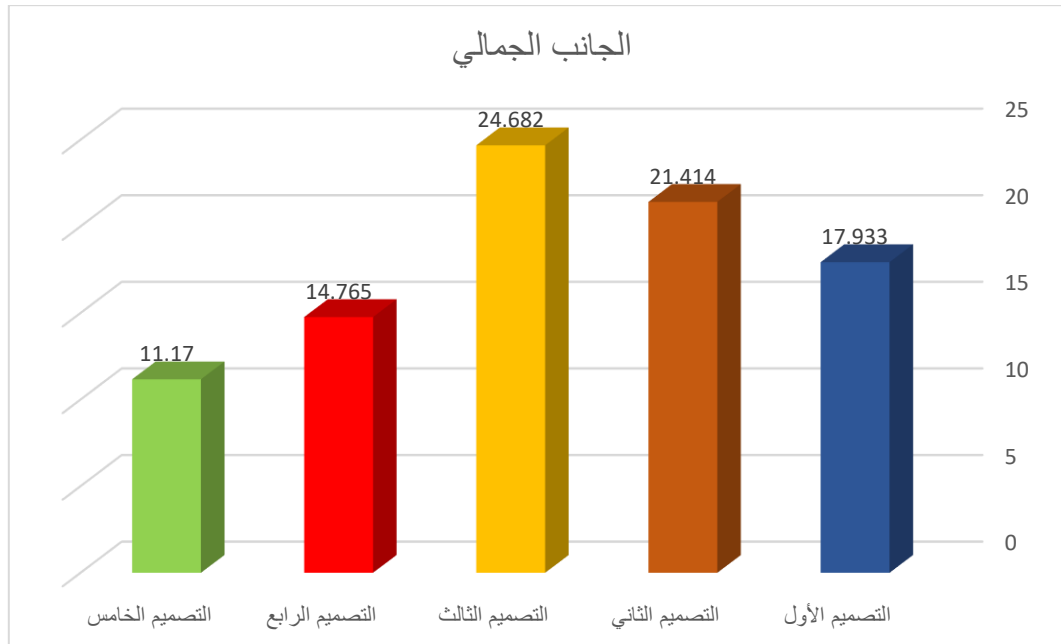
The aesthetic aspect	Sum of Squares	Squares mean	Degrees of freedom	Value of (F)	Sig.
Among groups	839.404	209.851	4	39.534	0.01 Sig.
Within groups	238.865	5.308	45		
Sum	1078.269		49		

Table (18): shows that the value of (F) was (39.534), and it is a statistically significant at the level (0.01), which indicates the existence of differences among the five designs in achieving the aesthetic aspect, according to the specialists' opinions, and to know the direction of the significance, the test of LSD for the multiple comparisons was applied. The following table shows this:

**Table (19)** test of LSD for the multiple comparisons

The aesthetic aspect	The first design M=17.933	The second design M=21.414	The third design M=24.682	The fourth design M=14.765	The fifth design M=11.170
The first design	-				
The second design	3.481**	-			
The third design	6.749**	3.268**	-		
The fourth design	3.168**	6.649**	9.917**	-	
The fifth design	6.763**	10.244**	13.512**	3.595**	-

\*\* significant at 0.01      \* significant at 0.05      without stars not significant



**Figure (1)** shows the mean degrees of the five designs in achieving the aesthetic aspect according to the specialists' opinions

From table (19) and figure (1), it is clear that: there are statistically significant differences among the five designs at the significance level of 0.01, so we find that the design "3" was the best design in achieving the aesthetic aspect according to the specialists' opinions, followed by the design "2", then the design "1", then the design "4", and finally design "5".

**The second hypothesis:**

"There are statistically significant differences among the five designs in achieving the functional aspect according to the specialists' opinions".

To investigate this hypothesis, an analysis of variance was calculated for the mean degrees of the five designs in achieving the functional aspect according to the specialists' opinions, and the following tables show that:

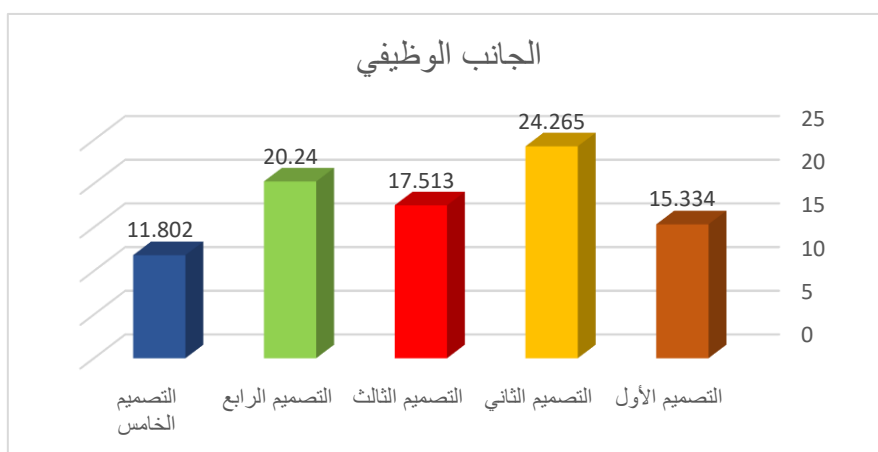
**Table (20)** an analysis of variance for the mean degrees of the five designs in achieving the functional aspect according to the specialists' opinions

The functional aspect	Sum of Squares	Squares mean	Degrees of freedom	Value of (F)	Sig.
Among groups	1236.457	309.114	4	65.367	0.01 Sig.
Within groups	212.801	4.729	45		
Sum	1449.258		49		

Table (20): shows that the value of (F) was (65.367), and it is a statistically significant at the level (0.01), which indicates the existence of differences among the five designs in achieving the functional aspect, according to the specialists' opinions, and to know the direction of the significance, the test of LSD for the multiple comparisons was applied. The following table shows this:

**Table (21)** test of LSD for the multiple comparisons

The functional aspect	The first design M= 15.334	The second design M=24.265	The third design M=17.513	The fourth design M=20.240	The fifth design M=11.802
The first design	-				
The second design	8.931**	-			
The third design	2.179*	6.752**	-		
The fourth design	4.906**	4.025**	2.727*	-	
The fifth design	3.532**	12.463**	5.711**	8.438**	-



**Figure (2)** shows the mean degrees of the five designs in achieving the functional aspect according to the specialists' opinions

From table (21) and figure (2), it is clear that:

- 1- There are statistically significant differences among the five designs at the significance level of 0.01, so we find that the design "2" was the best design in achieving the

functional aspect according to the specialists' opinions, followed by the design "4", then the design "3", then the design "1", and finally the design "5".

- 2- Also, there are differences at the significance level of 0.05 between the design "1" and the design "3" in favor of the design "3". Also, there are differences at the significance level of 0.05 between the design "3" and the design "4" in favor of the design "4".

### The third hypothesis

"There are statistically significant differences among the five designs in achieving the innovation and creativity according to the specialists' opinions".

To investigate this hypothesis, an analysis of variance was calculated for the mean degrees of the five designs in achieving the innovation and creativity according to the specialists' opinions, and the following tables show that:

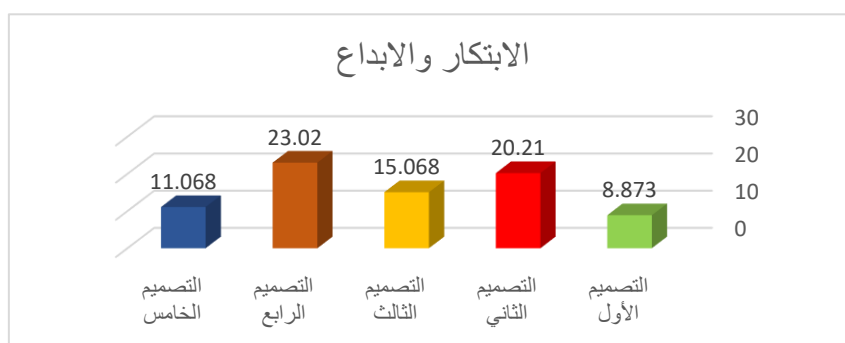
**Table (22)** an analysis of variance for the mean degrees of the five designs in achieving the innovation and creativity according to the specialists' opinions

The innovation and creativity	Sum of Squares	Squares mean	Degrees of freedom	Value of (F)	Sig.
Among groups	1186.133	296.533	4	19.114	0.01 Sig.
Within groups	698.129	15.514	45		
Sum	1884.262		49		

Table (22): shows that the value of (F) was (19.114), and it is a statistically significant at the level (0.01), which indicates the existence of differences among the five designs in achieving the innovation and creativity according to the specialists' opinions, and to know the direction of the significance, the test of LSD for the multiple comparisons was applied. The following table shows this:

**Table (23)** test of LSD for the multiple comparisons

The innovation and creativity	The first design M= 8.873	The second design M=20.210	The third design M=15.068	The fourth design M=23.02.	The fifth design M=11.068
The first design	-				
The second design	11.336**	-			
The third design	6.194**	5.142**	-		
The fourth design	14.146**	2.810*	7.952**	-	
The fifth design	2.194*	9.142**	4,000**	11.952**	-



**Figure (3)** shows the mean degrees of the five designs in achieving the innovation and creativity according to the specialists' opinions

From table (23) and figure (3), it is clear that:

- 1- There are statistically significant differences among the five designs at the significance level of 0.01, so we find that the design "4" was the best design in achieving the innovation and creativity according to the specialists' opinions, followed by the design "2", then the design "3", then the design "5", and finally the design "1".
- 2- Also, there are differences at the significance level of 0.05 between the design "1" and the design "5" in favor of the design "5". Also, there are differences at the significance level of 0.05 between the design "2" and the design "4" in favor of the design "4".

## The fourth hypothesis

"There are statistically significant differences among the five designs in achieving the distinction and modernity according to the specialists' opinions".

To investigate this hypothesis, an analysis of variance was calculated for the mean degrees of the five designs in achieving the distinction and modernity according to the specialists' opinions, and the following tables show that:

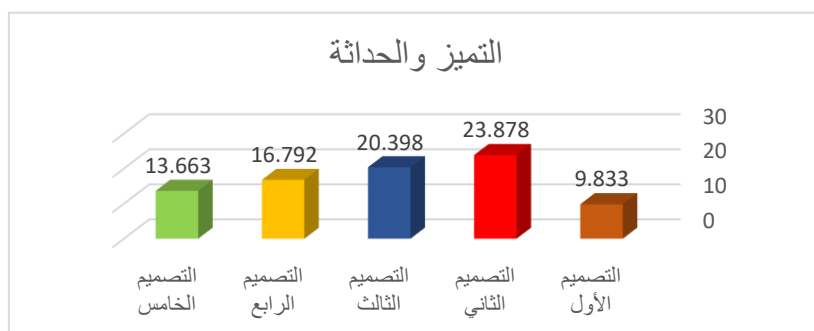
**Table (24)** an analysis of variance for the mean degrees of the five designs in achieving the distinction and modernity according to the specialists' opinions

The distinction and modernity	Sum of Squares	Squares mean	Degrees of freedom	Value of (F)	Sig.
Among groups	1029.378	257.345	4	55.908	0.01 Sig.
Within groups	207.137	4.603	45		
Sum	1236.515		49		

Table (24): shows that the value of (F) was (55.908), and it is a statistically significant at the level (0.01), which indicates the existence of differences among the five designs in achieving the distinction and modernity according to the specialists' opinions, and to know the direction of the significance, the test of LSD for the multiple comparisons was applied. The following table shows this:

**Table (25)** test of LSD for the multiple comparisons

The distinction and modernity	The first design M= 9.833	The second design M=23.878	The third design M=20.398	The fourth design M=16.792	The fifth design M=13.663
The first design	-				
The second design	14.045**	-			
The third design	10.565**	3.480**	-		
The fourth design	6.959**	7.086**	3.606**	-	
The fifth design	3.830**	10.215**	6.735**	3.129**	-



**Figure (4)** shows the mean degrees of the five designs in achieving the distinction and modernity, according to the specialists' opinions



*From table (25) and figure (4), it is clear that:*

There are statistically significant differences among the five designs at the significance level of 0.01, so we find that the design "2" was the best design in achieving the distinction and modernity according to the specialists' opinions, followed by the design "3", then the design "4", then the design "5", and finally the design "1".

### The fifth hypothesis

"There are statistically significant differences among the five designs in colors consistency according to the specialists' opinions".

To investigate this hypothesis, an analysis of variance was calculated for the mean degrees of the five designs in colors consistency according to the specialists' opinions, and the following tables show that:

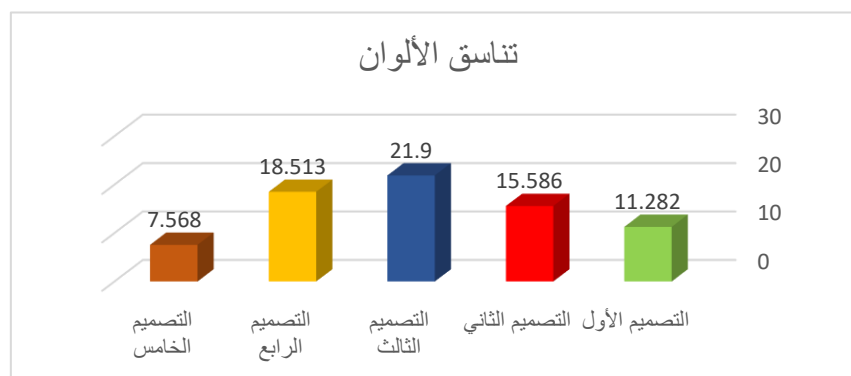
**Table (26)** an analysis of variance for the mean degrees of the five designs in colors consistency according to the specialists' opinions

Colors consistency	Sum of Squares	Squares mean	Degrees of freedom	Value of (F)	Sig.
Among groups	17391.887	4347.972	4	25.131	0.01 Sig.
Within groups	7785.586	173.013	45		
Sum	25177.473		49		

Table (26): shows that the value of (F) was (25.131), and it is a statistically significant at the level (0.01), which indicates the existence of differences among the five designs in colors consistency, according to the specialists' opinions, and to know the direction of the significance, the test of LSD for the multiple comparisons was applied. The following table shows this:

**Table (27)** test of LSD for the multiple comparisons

Colors consistency	The first design M= 11.282	The second design M=15.586	The third design M=21.900	The fourth design M=18.513	The fifth design M=7.568
The first design	-				
The second design	4.304**	-			
The third design	10.618**	6.314**	-		
The fourth design	7.231**	2.927*	3.387**	-	
The fifth design	3.714**	8.018**	14.332**	10.945**	-



**Figure (5)** shows the mean degrees of the five designs in colors consistency, according to the specialists' opinions

From table (27) and figure (5), it is clear that:

- 1- There are statistically significant differences among the five designs at the significance level of 0.01, so we find that the design "3" was the best design in colors consistency according to the specialists' opinions, followed by the design "4", then the design "2", then the design "1", and finally design "5".
- 2- Also, there are differences at the significance level of 0.05 between the design "2" and the design "4" in favor of the design "4".

### The sixth hypothesis

"There are statistically significant differences among the five designs according to the specialists' opinions".

To investigate this hypothesis, an analysis of variance was calculated for the mean degrees of the five designs according to the specialists' opinions, and the following tables show that:

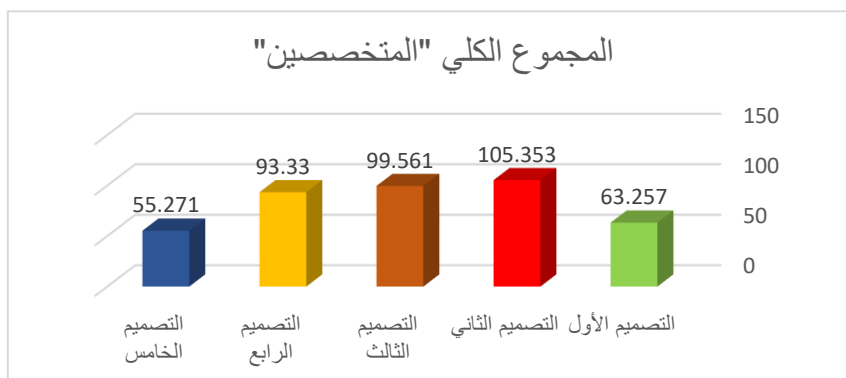
**Table (28)** an analysis of variance for the mean degrees of the five designs according to the specialists' opinions

The total sum " The specialists"	Sum of Squares	Squares mean	Degrees of freedom	Value of (F)	Sig.
Among groups	1191.030	297.758	4	47.601	0.01 Sig.
Within groups	281.490	6.255	45		
Sum	1472.520		49		

Table (28): shows that the value of (F) was (47.601), and it is a statistically significant at the level (0.01), which indicates the existence of differences among the five designs in colors consistency, according to the specialists' opinions, and to know the direction of the significance, the test of LSD for the multiple comparisons was applied. The following table shows this:

**Table (29)** test of LSD for the multiple comparisons

The total sum " The specialists"	The first design M= 63.257	The second design M=105.353	The third design M=99.561	The fourth design M=93.330	The fifth design M=55.271
The first design	-				
The second design	42.096**	-			
The third design	36.304**	5.792**	-		
The fourth design	30.073**	12.023**	6.231**	-	
The fifth design	7.986**	50.082**	44.290**	38.059**	-



**Figure (6)** shows the mean degrees of the five designs according to the specialists' opinions

*From table (29) and figure (6), it is clear that:*

There are statistically significant differences among the five designs at the significance level of 0.01, so we find that the design "2" was the best design according to the specialists' opinions, followed by the design "3", then the design "4", then the design "1", and finally design "5".

### **From the above, the researcher found**

- Working on new designs for printed textiles by taking the semantics of the NEOM logo as an inspiration is a challenge for designers to design collections that adopt cultural values for marketing and supporting Vision 2030.
- With the decline in the use of traditional methods, the digital technologies have gained importance in creating a new language for design. Digital tools need innumerable of features and options in preparing drawings and detailed coloring of pattern designs.
- Possibility of employing designs on furnishings.

### **Recommendations**

- 1- Directing the designers and those working in the field of design to the importance of innovative thinking to give multiple solutions that enrich this field.
- 2- Expanding the furnishings designing to keep pace with the developments of the age and its modern trends
- 3- Providing the Arab library with references in the field of furnishings implementation.

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