

2021

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### Recommended Citation

Madian, Wedian Talaat (2021) "Designing Menswear Inspired by Caricature to Support Apparel Industry During COVID-19 Pandemic," *International Design Journal*: Vol. 11 : Iss. 6 , Article 9.

Available at: <https://digitalcommons.aaru.edu.jo/faa-design/vol11/iss6/9>

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## Designing Menswear Inspired by Caricature to Support Apparel Industry During COVID-19 Pandemic

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### Abstract:

COVID-19 pandemic has affected the lives of millions of people. Economic crisis had happened all-over the world due to lockdown, in addition, consumer behavior has completely changed. According to several studies regarding the apparel sector; factories should be more flexible and change their strategies according to customer needs.

The study aims to provide the market by menswear designs, that consider the men's' contemporary needs to overcome the economic impact caused by Covid-19 pandemic. The study also aims to enrich men's apparel industry with designs inspired by the aesthetics of caricature art, to raise awareness of the need to take the necessary preventive measures to confront COVID-19 and broadcast positive energy to pass the pandemic.

The design project for the study suggests 10 menswear designs that match the fashion trends to ensure a fashionable look, yet implement the requirements and preferred styles for menswear according to a survey (160 responses for the T-shirt form and 68 responses for the spring/summer jacket form). Printed caricatures have been chosen according to interviews with 12 men who chose these illustrations out of 33 other illustrations that rise morale and awareness of the need to prevent from Corona virus. A statistical analysis was conducted using the SPSS-PC statistical program package, Version 25 for a final questionnaire to measure the acceptance level for the suggested designs. According to the statical results, the five top designs were sewn and printed then presented in an exhibition under the umbrella of the Egyptian Ministry of Culture in "Zakaria El Konani and Aida Abd El Karim Art Museum".

### Keywords:

*Apparel Industry, Menswear Design, Corona Virous, COVID-19, Caricature*

Paper received 9<sup>th</sup> August 2021, Accepted 19<sup>th</sup> September 2021, Published 1<sup>st</sup> of November 2021

### 1. Introduction:

COVID-19 pandemic has taken the whole world by surprise. The apparel industry is one of the most affected industries due to changes in consumer behavior, the retail sales which went down and selling channels which shifted. These changes impacted not only the volume of products but also the types of products, the manufacturing models in medium and long terms (International Trade Center, 2020, p. 8) and balance speed against discipline in the pursuit of innovation. (de Bogotá, Cámara de Comercio, 2021, p. 19)

The art of caricature is a visual art that uses simplification and reduction in details, to monitor events, situations and general issues. (Emran, Bahaa Abd Al-Kader, 2011, p. 16) **It is the philosophy of making people laugh out through objective criticism of society's problems to relieve tension and resist frustration. (Assal, Mohamed El Said, 2002, p. D)**

Hence, the research problem is determined in studying the possibility of extracting innovative designs for menswear through the Corona virus

presented in caricature to raise awareness against the COVID-19. In addition, the designs implement the contemporary needs of menswear and thus it could be worn for more than one season to confront the negative economic effects on consumers due to COVID-19 pandemic.

The research aims to enrich men's apparel industry with designs inspired by the aesthetics of caricature art. Thus, it helps in rising awareness of the need to take the necessary preventive measures to confront the Corona virus and broadcast positive energy to pass the pandemic. The research also aims to fill the need of the market through menswear designs, that consider the contemporary needs of men for a long period to overcome the economic impact of COVID-19.

### 2. Literature Review

#### 2.1. The Art of Caricature

The art of caricature can be defined as a form of visual art, created by skilled artists (Clarke, Lyndsey, et al, 2010, p. 808) to transform ideas into understandable symbols, with the intent of drawing attention to something that should be supported, or

highlighting a certain negative that should be addressed (Al-Dealag, Ibrahim, 2004).

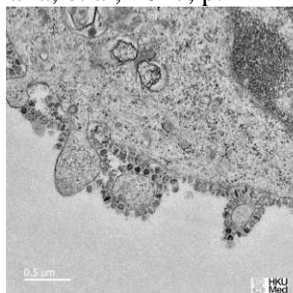
## 2. 2. Characteristics of Caricature Art:

Caricature artists are philosophers of laughter. Their caricature sinks into the depths of our society and reflects mistakes aiming to change and be positive. (Abou-Zeid, Rawda Youssef, 2016, p. 520) Whatever the style of the caricature artist, caricature is characterized by clarity, directness and shortness of speech, it is a language in itself. What distinguishes this language is its wonderful aesthetics and its ability to intensify and reduce, which no language can. (Al-Masnad, Ghalia, et al, 2017, p. 1379)

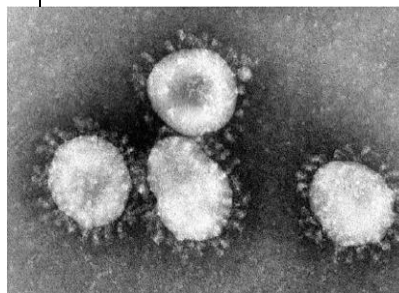
## 2. 3. The Importance of Caricature

The caricature has always presented stereotypes of the community and can constitute a reference of thoughts regarding certain issues, this art is a witness of its time. (Abou-Zeid, Rawda Youssef, 2016, p. 469)

In addition, regardless cultural levels and age groups, watching a picture has a greater impact on awareness and perception and is more rooted in the subconscious compared to reading a text or hearing an article. (Al-Masnad, Ghalia, et al, 2017, p. ١٣٨٤)



(Figure 1)



(Figure 2)

Monochrome for corona viruses

(Joubert, Marina and Herman Wasserman, 2020, P.4, 5)

## 2. 5. Corona Virus (COVID-19) in Caricature:

When viruses are humanized, it become familiar and allow the artist to express feelings and experiences, so it help to increase the content uptake without compromising information integrity. (Hight, Sarah Rosemary, 2017, p. 32) It give us a way to confront the unseen viruses and provide us with the sense of control and confidence. (Joubert, Marina and Herman Wasserman, 2020, P. 8)

The caricature artists express the global health panedemic (COVID-19) through art works that have awareness and guidance messages in a satirical framework calling for optimism. Furthermore, these messages encourage people to consider the hygiene rules.

In terms of the colors, most caricature artists preferred green and red to color the virus in their illustrations. The preference for green as it is a color combined with disease and slime, and red is an alarming color. (Weaving, S., 2020)

That is why caricatures contributes greatly to the formation of public awareness about a particular issue .

## 2.4. COVID-19 (Corona Virus):

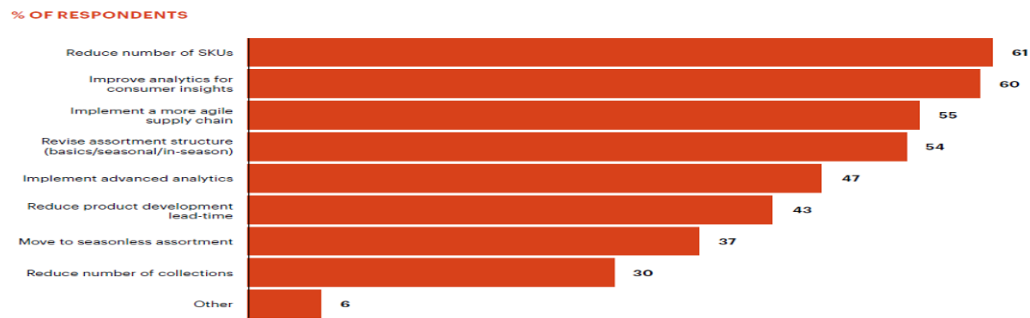
On 31<sup>st</sup> December 2019, the WHO (World Health Organization) was informed of pneumonia cases unknown cause detected in Wuhan City- China. (World Health Organization, 21 January 2020, P. 1) The reason was known later, as Corona virus (COVID-19) which was widely spread around the world causing a pandemic.

Corona viruses are a large family of viruses that cause respiratory infections which range in severity. The name is derived from the word "CORONAVITUR", which means the crown, due to the microscopic appearance of the virus. (Elsmadissy, Fathy Sobhy Hares, 2021, p. 307) The General Director of the WHO indicated that the word (COVID-19) is divided into semantic syllables where (CO) stands for (Corona), (VI) stands for (Virus), (D) stands for (Disease), while (19) stands for (2019) when the outbreak was officially announced. (Mostafa, Marwa Ezzat, and Dina Ahmed Nafady, 2021, p. 317)

## 2. 6. The Impact of the Corona Pandemic on Apparel Industry

The COVID-19 pandemic caused serious changes in the apparel industry and affected consumer behavior and their choices to buy apparel products. Retailers reported an increase in sales of basic items and a decrease in formal wear due to work from home. Furthermore, there is an increase in sales of tops at the expense of bottoms to cover the need for upper wear in online meetings. (International Trade Center, 2020, pp. 9-32) Therefore, companies will need to focus on three main priorities:

- Accelerate the shift toward a demand-led strategy.
- Address the recalibration of price-volume equation.
- Reduce design complexity. (Bof Team, et al., 2020, p. 62)



(Chart 1) The strategies of apparel industry to avoid overstock in the future ( de Bogotá, Cámara de Comercio, 2021, p. 64)

### 3. Methods and analysis

Caricature is a troublesome art characterized by satirical and deep ideas that addresses awareness and seek to cause a positive change in social reality. Studies of caricature illustrations that represent coronavirus prove how it influence public emotion and motivates us to change the established constants to confront the contemporary challenges.

The study aims to provide menswear designs that meet contemporary requirements of men. Therefore, identifying men's needs provide a means for establishing menswear designs that are fashionable yet suit their needs. The study also aims to raise morale and awareness of the need to prevent the Corona virus through a satirical vision using caricatures in light of the COVID-19 pandemic.

#### 3.1. Designs:

Pencils and papers were used to illustrate 20 sketches for menswear designs inspired by caricature considering the contemporary needs for menswear. Final designs are illustrated using adobe

illustrator and adobe photoshop programs.

**Aesthetic aspects for the designs:** Designs follow the casual and practical themes in the fashion trends for SS 2022. The inspiration in this study is caricature art which illustrates the issue of COVID-19 pandemic. 33 Caricature illustrations were chosen to rise morale and awareness of the need to prevent from Corona virus through a satirical vision of the COVID-19 pandemic. Caricature prints have been chosen according to interviews with 12 men who chose these illustrations according to the explained aim of the study and what suit their preferences. Prints in the designs follow the printing trends for SS 2022 to add an aesthetic aspect to the design in addition to its satirical messages about the COVID-19 pandemic. Design principles are carefully considered between the design elements through balance, symmetry, contrast and proportionality in shapes, colors, and symbols, thus achieving harmony, consistency and unity in the design as a whole.



(Figure 3) Mood-board created by the researcher

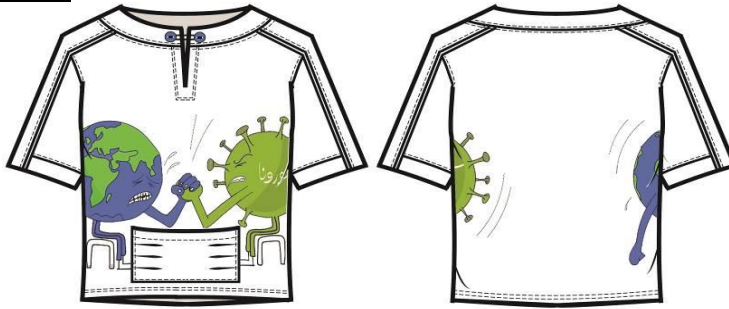
[https://www.popfashioninfo.com/details/report/t\\_report-id\\_10142-col\\_128/](https://www.popfashioninfo.com/details/report/t_report-id_10142-col_128/)

**Functional aspects for the designs:** Straight simple silhouettes to match the upcoming casual and practical themes in the fashion trends for SS 2022 to ensure the fashionable look. Designs also implement the preferred styles and colors for menswear according to the results of the survey (160 responses for T-shirt form and 68 responses for spring/summer jackets form) in the age groups (20-30, 31-40, 41-50) years old. The survey includes 29 questions for T-shirt and 37 questions for SS jacket concerning cut-lines, styles, accessories, print designs, pockets, sleeves, collars, neck-lines, colors, fabrics, fitting, lining, closures and the effect of COVID-19 on their choices concerning buying, and requirements. Furthermore,

fabrics are Plain Single Jersey 100% cotton, Summer Melton 100% cotton, Rib, Pique, Gabardine cotton and woven cotton due to its suitability for Spring/Summer menswear in terms of comfort, durability, and softness, and they are easy to wash and care, in addition to its mildness price. Inkjet and silk screen printing are used for printing the caricature on the designs due to its suitability for the chosen fabrics to obtain the highest quality level for printing. In addition, caricature illustrations are rising morale and awareness of the need to prevent from Corona virus through a satirical vision of the COVID-19 pandemic.



**Design no. 1:**



(Figure 4) Design no. 1

**Design:** T-shirt with short sleeves and horizontal incomplete cuts at the end of the sleeves. Round wide neck-line with an opening which can be closed using buttons and a rouleau loops made of a fabric ribbon. A front pocket in a face-mask shape (with cartridge pleats) that the wearer can keep the face-mask safe in the pocket while being in open-areas. Single and double over stitch lines were used around the cutlines.

**Caricature print:** Shows the extent of the resistance exerted by the Earth facing the Corona virus and illustrates the features of stress and steadfastness on the face of the globe facing the great power expressions on the face of the virus.

**Colors for fabrics:** White.

**Fabrics and accessories:** Single Jersey 100% cotton, fabric ribbon and two buttons.

**Design no. 2:**



(Figure 6) Design no. 2

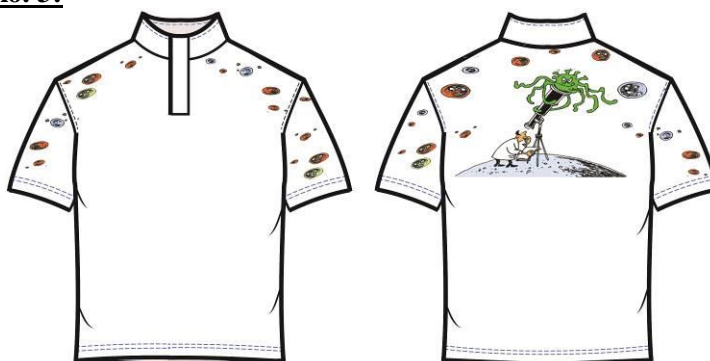
**Design:** Double-layered T-shirt with short raglan sleeves and a crew collar. Curvy sides at hemline on the upper layer and straight hem for the bottom layer which has a shirt style. Single and double over stitch lines were used around the cutlines. Double over stitches were also used around front neck-line in a shape of the spikes around the body of virus corona.

**Caricature print:** Shows how corona virus is making fun of a careless man who is sitting on a chair in a street coffee-shop without considering the hygiene protocols to protect himself of COVID-19. The facial expressions for the man show how careless he is, while the facial expressions for the virus show how happy it is to find its victim that easy. The caricature contains a satirical text that the virus says “You Were Going to Die at Home Due to Home Quarantine!”.

**Colors for fabrics:** Beige and light-blue.

**Fabrics and accessories:** Single Jersey 100% cotton, rib and woven cotton fabrics.

**Design no. 3:**



(Figure 8) Design no. 3



(Figure 5)

Caricature for Design no. 1  
<https://bit.ly/3myqLgQ>



(Figure 7) Caricature for Design no. 2

<https://bit.ly/3gxVB5n>



(Figure 9) Caricature for Design no. 3

<https://bit.ly/3DgFkeY>

**Design:** Polo-shirt with short set-in sleeves and a stand collar. Front opening with covered zipper and straight hemline. Single and double over stitch lines were used around the cutlines.

**Caricature print:** Depicts the Corona virus as a ghost that disrupts the external lens of a telescope that was used by a specialist to look at celestial bodies, but the Corona virus blocks the view. The caricature represents the strong effect of the pandemic on the scientific fields and the continuous effort of scientists to face this effect. The facial expressions for the virus show how cunning and harmful it is while the facial expressions of the scientist show confused he is to face this pandemic.

**Colors for fabrics:** White.

**Fabrics and accessories:** Pique 100% cotton and a zipper.

**Design no. 4:**



(Figure 10) Design no. 4

**Design:** T-shirt with short set-in sleeves and round neck-line with an opening which can be closed by three buttons. Single and double over stitch lines were used around the cutlines and in a (X) shape at the end of the front opening. Two front pockets in a face-mask shape with cartridge pleats were added to the design that the wearer can keep the face-mask safe in the pockets while being in open-areas.

**Caricature print:** Shows the global war against the Corona virus, after the emergence of a number of vaccines that effectively combat the Corona virus. The globe appears in the form of a doctor holding the vaccine in one hand and suffocating the virus with the other hand. The satirical scene calls for hope and optimism in the doctors' ability to eliminate the spread of the virus on the planet. The expressions of strength and challenge appear on the face of the earth, while the expressions of weakness and defeat appear on the face of the virus.

**Colors for fabrics:** Blue and yellow.

**Fabrics and accessories:** Pique 100% cotton and three buttons.

**Design no. 5:**



(Figure 12) Design no. 5

**Design:** T-shirt with long raglan sleeves that have vertical cut lines and round wide rib neck-line. Round hemline which is short at the front and longer at the back and irregular ends for sleeves. Two pockets in a face-mask shape with cartridge pleats that the wearer can keep the face-mask safe in the pocket while being in open-areas. Single and double over stitch lines were used around the cutlines.

**Caricature print:** Depicts a young man taking a selfie with the Corona virus using a mobile. The expression of anger appears on the face of the virus due to its inability to attack the young man as he



(Figure 11) Caricature for Design no. 4

<https://bit.ly/3DkYX5s>



(Figure13) Caricature for Design no. 5

<https://bit.ly/3zhNEZr>

is wearing a face mask, while the expressions of strength, happiness and comfort appear on the face of the young man as he can practice his normal life although the pandemic. The illustration carries a sarcastic message calling for increasing the awareness of the need to wear the face masks to overcome the pandemic.

**Colors for fabrics:** White, yellow and light-blue.

**Fabrics and accessories:** Summer Melton 100% cotton and rib.

**Design no. 6:**



(Figure 14) Design no. 6

**Design:** T-shirt with short set-in sleeves that have a double layered end and a round narrow neck-line. Straight double layered hemline with a ribbon at the end of the upper layer. Single and double overstretch lines were used around the cutlines.

**Caricature print:** Depicts a cat holding a sign entitled "The Virus Is Over" to lure the mouse out of its hole, while the mouse points to the phrase "STAY HOME." The caricature carries a satirical vision calling for staying at home and not being exposed to the danger of the virus. That is where the expressions of cunning appear on the face of the cat, while the expressions of fear and caution appear on the face of the mouse.

**Colors for fabrics:** Yellow and light-blue.

**Fabrics and accessories:** Single Jersey 100% cotton and a ribbon.



(Figure 15) Caricature for Design no. 6

<https://bit.ly/3gwTXkF>

**Design no. 7:**



(Figure 16) Design no. 7

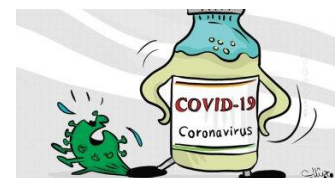
**Design:** T-shirt with long double-layered set-in sleeves. Wide neck-line combined by a hood that has overlapped ends and a ribbon at the front. Double layered hemline, the upper layer has curvy hemline and the bottom layer has a straight hemline. Single and double overstretch lines were used around the cutlines.

**Caricature print:** Depicts the vaccine as a hero standing on the corona virus and preventing it from moving while the virus is trying to escape. Signs of strength appear on the muscles of the vaccine, while expressions of terror appear on the face of the virus. The illustration highlights the pursuit of the Corona vaccine for the Corona virus to prevent its spread and devouring the citizens lives around the world.

**Colors for fabrics:** Yellow and light-blue.

**Fabrics and accessories:** Summer Melton 100% cotton and a ribbon.

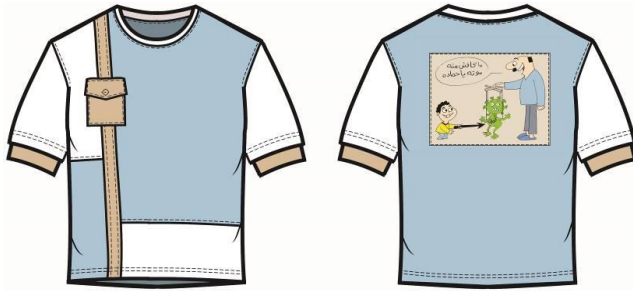
**Design no. 8:**



(Figure 17) Caricature for Design no. 7

<https://bit.ly/3ktjht7>





(Figure 18) Design no. 8

**Design:** T-shirt with short set-in sleeves that have a double layered end, a round narrow neck-line and straight hemline. The design has vertical and horizontal fabric stipes and cut lines and a bellow pocket with a cover at the front that the wearer can keep the face-mask safe in the pocket while being in open-areas. Single and double over stitch lines were used around the cutlines.

**Caricature print:** Depicts a satirical scene of a man carrying the virus in a form of a children marionette toy and encouraging a child not to be afraid of the virus through the text "Do Not Be Afraid, Kill It Hamada!". The illustration carries a message of hope for the ability to completely control the Corona virus and the absence of a threat to children through the expressions of happiness that appear on the faces of the man and the child against the expression of horror on the face of the virus.

**Colors for fabrics:** White, beige and light-blue.

**Fabrics and accessories:** Pique 100% cotton and a button.

#### Design no. 9:



(Figure 20) Design no. 9

**Design:** T-shirt with long set-in sleeves that have a double layered end, a round narrow neck-line and straight hemline. The design has double layered front in vertical cut lines start at the middle of the shoulders and end at hemline. Single and double over stitch lines were used around the cutlines.

**Caricature print:** Depicts a satirical scene of the Corona virus in the form of a monster searching for its victims while the family members hide in the house behind the door to prevent the virus. The illustration carries an awareness message about the importance of staying home through the evil expressions that appear on the face of the virus and the expressions of happiness that appear on the faces of the family members for surviving the virus.

**Colors for fabrics:** White and light-blue.

**Fabrics and accessories:** Summer Melton 100% cotton.

#### Design no. 10:



(Figure 22) Design no. 10



(Figure 19) Caricature for Design no. 8

<https://bit.ly/3sNphk2>



(Figure 21) Caricature for Design no. 9

<https://bit.ly/3sNphk2>



(Figure 23) Caricature 1 for Design no. 10

<https://bit.ly/3gzNFRo>



(Figure 24) Caricature 2 for Design no. 10

<https://bit.ly/3gwTXkF>



**Design:** Spring-Summer jacket with stand collar, long set-in sleeves that have vertical cut lines and single-cuffs. Two pockets in a face-mask shape with cartridge pleats on the sleeves that the wearer can keep the face-mask safe in the pockets while being in open-areas. The closure of the front opening has a hidden zipper and a button. Single and double over stitch lines were used around the cutlines.

**Caricature print:** The caricature at the back depicts a satirical scene of a young man presenting a flower to a girl and the girl is spraying sanitizer on the flower. The drawing emphasizes the importance of raising awareness of taking preventive measures such as wearing the face mask and using sanitizers through the expression of happiness on the faces of the characters, which express their sense of safety due to following the preventive measures. The caricature at the front expressed the control of the new Corona virus over the year 2020, so the new year 2021 came with a vaccine that kills the deadly virus, and eliminates it. It supports the awareness messages for the great importance of receiving the vaccine.

**Colors for fabrics:** Black.

**Fabrics and accessories:** Gabardine cotton, a zipper and buttons.

**3.2. Study Tools**

Based on the data to be collected, the adopted approach, the time limit, and the available material capabilities; the researcher found that the best tool to achieve the study objectives is Questionnaire. (Table 1)

The questionnaire is designed to investigate “the

importance of designing menswear inspired by caricature to support the apparel industry during the covid-19 pandemic and the acceptance levels of the designs among men apparel consumers”. Fifth Likert scale is used to measure the responses of the test subjects to the questionnaire items.

(Table 1) Fifth Likert scale

Response	Strongly Agree	Agree	Neutral	Disagree	Strongly disagree
Rate	5	4	3	2	1

**3.3. Procedures**

The analytic descriptive and applied approaches were used to fulfill the study aims and reach conclusions. These conclusions are used as a foundation to the suggested perspective, which enrich the information related to the study (Abu Hatab & Sadeq, 2005, p. 104).

Fifty-seven participants were involved in the questionnaire study. The participants came from a variety of specializations and age groups summarized in Tables 2,3:

(Table 2) Distribution of the sample according to Specialization

Specialization	Frequency	Percent
specialist	22	%38.6
Non-specialist	35	%61.4
Total	57	%100.0

(Table 3) Distribution of the sample according to Age

Age	Frequency	Percent
From 20 to 30 years old	19	%33.3
From 31 to 40 years old	18	%31.6
From 41 to 50 years old	20	%35.1
Total	57	%100.0

**3.6. Reliability and Validity**

Cronbach’s alpha was used to examine the internal reliability of the total 10 questions. The Cronbach’s alpha varies from 0 to 1 and a value of 0.6 or less indicates unsatisfactory internal consistency reliability. All 10 questions produced alpha coefficient of 0.955 for all items. This means that the reliability factor is high and statistically accepted.

**3.4. Data analysis**

Data were collected, automated and analyzed through descriptive statistics. Significance is assessed at 5 % level of significance with p value set at 0.05 less than this is considered as statistically significant difference.

**3.5. Questionnaire participants**

**3.7. Empirical Data of Correlation Analysis**

Correlation analyses between variables were conducted using Pearson correlations. A simple correlation was computed within each question with sum of all questions, the significance level for the correlation statistics in this study was set at  $p < .01$ .

The results of the present research variables can be shown in (Table 4) where the correlation of each question is significant at 0.01 levels, two- tailed

with sum of all questions.

(Table 4) Pearson Correlation Analysis

question		
The place of caricature illustrations is proportional to the overall dimensions of the design	.782**	0.000
There is a color harmony between caricatures and the design as a whole	.832**	0.000
The design combines global fashion trends with the contemporary needs of men's wear	.861**	0.000
Caricature art added innovative aesthetic values to the design of men's wear	.886**	0.000
The design is suitable for selling in men's wear stores	.897**	0.000
The design contributes in raising morale against the negative effects of the Corona pandemic	.866**	0.000
The design contributes in raising awareness of the need to prevent of Corona virus through satirical caricature illustrations	.841**	0.000
The design implements the requirements and preferred styles for menswear	.808**	0.000
Inspiring the design by caricature illustrations succeeded to address an important issue in society (Corona pandemic)	.833**	0.000
Caricature illustrations are suitable inspiration source that is compatible with the design of men's wear	.834**	0.000

\*\* Correlation is significant at the 0.01 level (2-tailed).

## 4. Results

### 4.1. Statistical Data Analysis

Data Analysis were conducted using Statistical Package for the Social Sciences (SPSS) program Version 25 the data collected using the questionnaire. The following statistical tests were applied:

- 1) Frequencies and Percentages for describing the sample.
- 2) The mean, relative weight and standard deviation.
- 3) Cronbach's Alpha for questionnaire reliability.
- 4) Person correlation coefficient for correlation

degree.

5) Independent Sample T-Test to know if there are statistically significant differences between two independent sets of data.

6) One Way Analysis of Variance (ANOVA) to know if there are any statistically significance differences between three or more sets of data.

The mean, standard deviation, relative weight, and T-test were used to test this study and investigate whether the average response rate reached the neutral point, which equals three. (Table 5).

(Table 5) Mean, standard deviation, relative weight, and T-test

no	Item	Mean	Std. Deviation	Relative weigh	T-test value	Sig. (2-tailed)	rank
1	The place of caricature illustrations is proportional to the overall dimensions of the design	3.99	1.103	80%	21.347	0.000	4
2	There is a color harmony between caricatures and the design as a whole	4.05	1.052	81%	23.936	0.000	2
3	The design combines global fashion trends with the contemporary needs of men's wear	3.94	1.043	79%	21.563	0.000	6
4	Caricature art added innovative aesthetic values to the design of men's wear	3.89	1.114	78%	19.133	0.000	9
5	The design is suitable for selling in men's wear stores	3.94	1.099	79%	20.396	0.000	7

no	Item	Mean	Std. Deviation	Relative weigh	T-test value	Sig. (2-tailed)	rank
6	The design contributes in raising morale against the negative effects of the Corona pandemic	3.98	1.082	80%	21.607	0.000	5
7	The design contributes in raising awareness of the need to prevent of Corona virus through satirical caricature illustrations	4.07	1.070	81%	23.800	0.000	1
8	The design implements the requirements and preferred styles for menswear	3.76	1.200	75%	15.046	0.000	10
9	Inspiring the design by caricature illustrations succeeded to address an important issue in society (Corona pandemic)	4.05	1.037	81%	24.224	0.000	3
10	Caricature illustrations are suitable inspiration source that is compatible with the design of men's wear	3.90	1.121	78%	19.212	0.000	8

Table 5 shows that the mean for all items is 3.96 and the relative weight is 79%. It also shows that the T-test value is 21.03 and Sig. is less than the level of significance, which indicates that all sample members agree on all the items. The item “The design contributes in raising awareness of the need to prevent of Corona virus through satirical caricature illustrations”, scored the highest approval

percentage 81%.

Independent sample T test is used for comparing the means of two independent samples (specialist, non-specialist) between the impressions about the ten designs according to two Specializations. (Table 6), (Table 7), (Chart 2)

(Table 6) Independent sample T test for the impressions about the ten designs according to Specialization

Specialization	N	Mean	Std. Deviation	t	Sig. (2-tailed)
specialist	22	381.73	75.748	-1.199	0.236
Non-specialist	35	404.49	65.813		

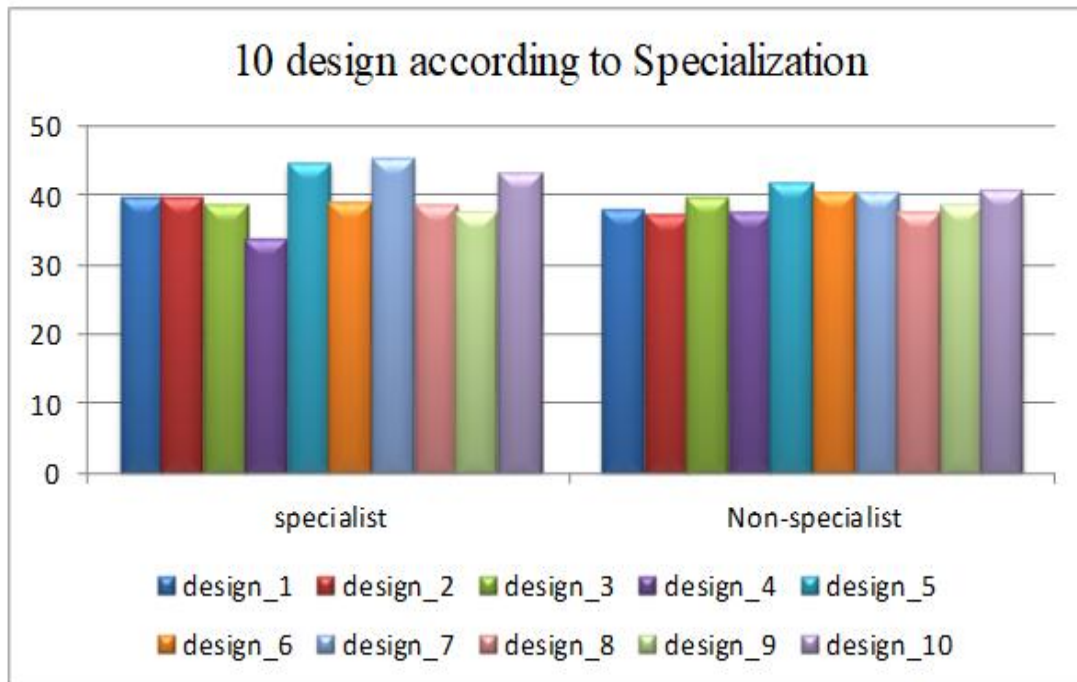
From (Table 7) there is no difference between all 10 designs according to Specialization P> 0.05

(Table 7) All 10 designs according to Specialization

design	Specialization	Mean	Std. Deviation	N
design_1	specialist	39.86	8.425	22
	Non-specialist	38.03	8.906	35
	Total	38.74	8.694	57
design_2	specialist	39.55	8.331	22
	Non-specialist	37.11	10.070	35
	Total	38.05	9.435	57
design_3	specialist	41.05	8.381	22
	Non-specialist	38.63	9.623	35
	Total	39.56	9.163	57
design_4	specialist	33.82	9.772	22
	Non-specialist	37.69	10.712	35
	Total	36.19	10.444	57
design_5	specialist	44.68	5.093	22
	Non-specialist	41.69	8.707	35
	Total	42.84	7.611	57
design_6	specialist	39.09	10.748	22
	Non-specialist	40.51	9.332	35
	Total	39.96	9.832	57
design_7	specialist	45.41	5.804	22



	Non-specialist	40.49	7.261	35
	Total	42.39	7.106	57
design_8	specialist	38.55	7.633	22
	Non-specialist	37.63	10.213	35
	Total	37.98	9.240	57
design_9	specialist	37.68	8.471	22
	Non-specialist	38.66	11.677	35
	Total	38.28	10.484	57
design_10	specialist	43.23	6.928	22
	Non-specialist	40.74	8.315	35
	Total	41.70	7.840	57

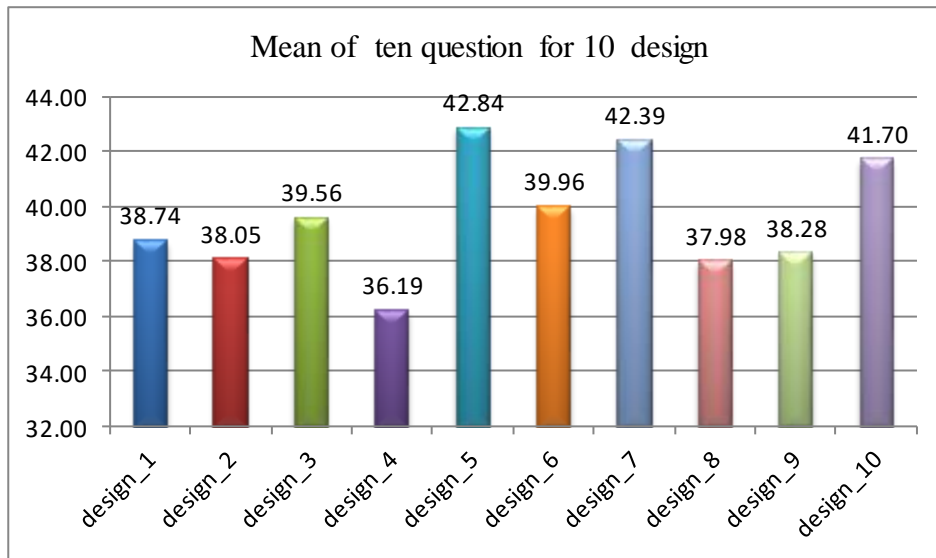


(Chart 2) 10 Designs according to specialization  
 (Table 8) Descriptive statistics of each question of ten question for 10 designs

design	Mean	Std. Deviation
design_1	38.74	8.694
design_2	38.05	9.435
design_3	39.56	9.163
design_4	36.19	10.444
design_5	42.84	7.611
design_6	39.96	9.832
design_7	42.39	7.106
design_8	37.98	9.240
design_9	38.28	10.484
design_10	41.70	7.840
Total	39.57	9.212

(Table 8) and (Chart 3) show the descriptive statistics of each question of ten question for 10

design the highest mean of design\_5 (42.84).

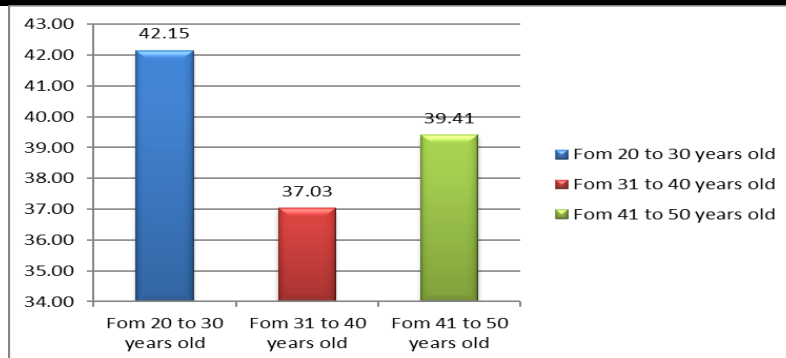


(Chart 3) mean of ten questions for 10 designs

ANOVA were used to determine if statistically significant differences existed among 10 designs according to age. There were statistically significant differences based on sum of all questions between 10 designs  $p < 0.05$ . (Table 9), (Chart 4)

(Table 9) ANOVA for all 10 designs according to age

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	3379.420a	19	177.864	2.179	0.003
Within Groups	851814.353	1	851814.353		
Total	3379.420	19	177.864		



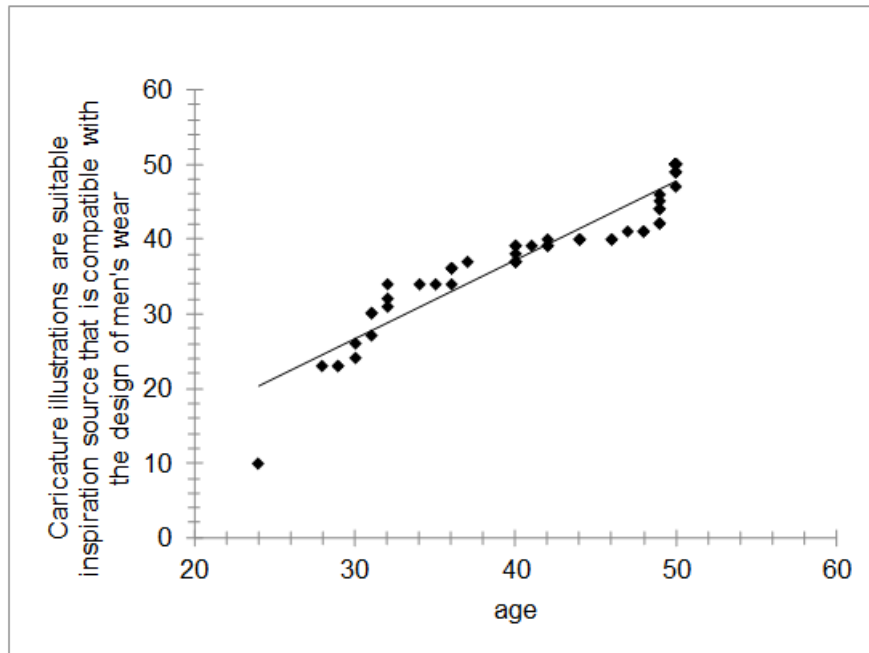
(Chart 4) all 10 designs according to age

The value of the correlation that we find between the two variables is  $r = 0.604$ , which is medium correlation, and thus confirms that indeed the linear relationship appears very strong. (Table 10), (Chart 5)

(Table 10) Correlation between Caricature illustrations are suitable inspiration source that is compatible with the design of men's wear and age

		age	Caricature illustrations are suitable inspiration source that is compatible with the design of men's wear
age	Pearson Correlation	1	.604**
	Sig. (2-tailed)		.000
	N	57	57
Caricature illustrations are suitable inspiration source that is compatible with the design of men's wear	Pearson Correlation	.604**	1
	Sig. (2-tailed)	.000	
	N	57	57

\*\* . Correlation is significant at the 0.01 level (2-tailed).



(Chart 5) Correlation between Caricature illustrations are suitable inspiration source that is compatible with the design of men's wear and age

**4.2. Applied designs:**

According to the statical results, five designs got high acceptance levels among menswear consumers and specialists in the apparel sector. These five

designs were sewn and printed using the suggested fabrics and print techniques during the design process.

**Design no. 3:**



(Figure 25) Applied outfit for Design no. 3

**Design no. 5:**



(Figure 26) Applied outfit for Design no. 5



**Design no. 6:**



(Figure 27) Applied outfit for Design no. 6

**Design no. 7:**



(Figure 28) Applied outfit for Design no. 7

**Design no. 10:**



(Figure 29) Applied outfit for Design no. 10

**4.3. Exhibition:**

The applied outfits and boards for the suggested designs were presented in an exhibition under the umbrella of the Egyptian Ministry of Culture in

Zakaria El Konani and Aida Abd El Karim Art Museum. The exhibition visitors came from a variety of specializations (specialists in the apparel sector and non-specialists), age groups and genders.



(Figure 30) boards presented in the exhibition



(Figure 31) Exhibition

**5. Conclusion:**

This study highlights the importance of designing menswear inspired by caricature to support the apparel industry during the covid-19 pandemic to confront the negative effects caused by the spread of Covid-19 pandemic all-over the world. In the apparel sector getting inspired by the caricature art can afford designs that have messages address awareness and seek to cause a positive change in social reality. The awareness messages that caricature has are acceptable and easily understood between all society levels due to its satirical verbal and non-verbal language. The study proves the great importance of considering the contemporary needs for customers before designing apparel for any purpose specially during crises similar to COVID-19 panemic.

**Acknowledgement:**

The researcher would like to thank Eng.

Mohammed El Berry, Production Manager at Arafa Group for ready-made garments- Egypt, and Mr. Eslam Madian, Fleet Manager at El Soadaa Group.

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