

## Millennials Interest in Fabric Masks in Covid-19 Era

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### Abstract

This study aims to measure the interest of a group of young people in the use of fabric masks in the Covid-19 era in terms of the value of needs, designs, colors, types of materials, and accessories. This study uses a quantitative approach. The research subjects were all new students of 2020, the Department of Home Economics Education with a sample of 228. The data collection method used a questionnaire with a Likert scale model of four alternative answers. The data analysis technique used descriptive analysis of the frequency distribution and exploratory factor analysis. The instrument validity was proven by Product Moment Correlation, while its reliability was tested by Cronbach's Alpha. The results showed that the mask design was more explained by colors, materials, and fashionable factors, while mask values were due to consideration of needs and protection factors.

**Keywords:** Covid-19; Fabric masks; Millennials;

### 1. Introduction

International response to the spread of Covid-19 in Indonesia is to immediately declare a national emergency, educate the public and communicate actively by implementing appropriate risk communication, and further improve the community, more intensively trace positive cases of Covid-19, carry out laboratory decentralization so that the response team can map the cluster and distribution, and can share detailed data about the approach taken by Indonesia and the government's steps in conducting surveillance and examinations, including patient contact identification data and a summary of Covid-19 patient contact tracing data.

As a response to the corona virus pandemic, several universities throughout Indonesia chose to cancel classes and replace them with online learning, but in anticipation of post-pandemic students will still be present at the campus to continue their studies. The post-pandemic period will certainly continue to be aware of the spread of the corona virus, which until now there is no antidote.

The reality that has happened so far is that there is a lot of assistance that focuses on the treatment process after being exposed to Covid-19. Supposedly if the principle of prevention and cure is improved and a priority. So it is necessary to make an effort in any form so that the spread of this outbreak can be controlled. One of the efforts that can be made to prevent the spread of Covid-19 is by increasing self-care by using masks, where the use of masks is very important during this pandemic, masks that play a role in protecting the body from the spread of the corona virus through droplets from one person to another or local society.

According to Herman (2016) the use of fabric masks is an effective way to maintain a minimum distance of one meter and use masks and to protect oneself from various threats and dangers, such as: dust and various infectious disease outbreaks. This is the best way and alternative to reduce the risk of infection and to take early prevention from Covid-19 as it is today. The use of masks if done correctly, masks will still be able to reduce the spread of the Corona virus in the community, especially from people who are infected with the virus but have no symptoms. Thus, you also have to reduce activities by reducing activities in a place where there are enough people, it would be nice to keep doing physical distancing even though you have worn a fabric mask. This is especially so for those millennials whose activities are quite dynamic.

Many people think, the millennial generation and generation Z or what is popularly called "kids

nowadays". The term 'kids nowadays' is given to generation Z or the generation born between 1995-2013. Only sometimes it is often confused which is the millennial generation, which is the Z generation. From a small portion of Generation Y and most of Generation X, then a new generation was born called Generation Z. This generation, born in the mid-1990s to mid-2000s, was born. more familiar with technologies. The skills that must be possessed at this time in facing the Challenges of the Age for this generation are: (1) foreign language, (2) public speaking, (3) operating computers. Operating Microsoft. Operate software to design images and programming language. (4) writing, (5) networking, (6) smart in appearance. These six things are inherent in the students.

Based on the description above, this research was conducted to determine Millennials interest in fabric masks (non-medical) in the Covid-19 era in terms of the value of needs, designs, colors, types of materials, and accessories in fabric masks. As an effort to protect the nation's assets early. On the other hand, this is an effort to prevent and break the chain of transmission of the Covid-19 virus that is currently engulfing Indonesia.

## 2. Materials and Methods

### 2.1 Research Subjects Determination

The research was conducted at the State University of Surabaya at the beginning of the odd semester of 2020/2021 with a quantitative approach. The research subjects were all new students in the Home Economics Education major for the academic year 2020, 427 people in total. The research sample was 228 and the sample was taken by proportional random sampling. Data collection techniques using instruments through a Likert scale survey which consists of four alternative answers. Using google form.

### 2.2 Statistical Data Analysis

The data analysis technique used descriptive analysis of the frequency distribution and exploratory factor analysis. The validity of the instrument is proven by Product Moment Correlation, while its reliability is tested by Cronbach's Alpha.

## 3. Results And Discussions

### 3.1 Research Variables Description

Two variables in this study, namely mask values and mask design were measured using 4 items. Respondents' answers descriptions to these two variables are displayed using the proportion of the frequency distribution of answers 1 or 2 to represent negative responses and answer 3 or 4 to represent positive responses.

**Table 1.** Research Variables Description

Variables	Item Description	Negative Response (%)	Positive Response (%)
<b>Value Needs</b>			
	In the Covid-19 pandemic era which has plagued from February 2020 to the present, <b>the need</b> for masks is the main thing.	0.4	99.6
	In the current Covid-19 pandemic era, I like <b>to wear</b> a mask when leaving the house.	1.8	98.2
	As a Millennial, I have to wear a mask, to maintain my and others <b>health</b> .	14.5	85.5
	I prefer mask made by fabric because they are comfortable to wear.	1.8	98.2
<b>Desain</b>			
	I love <b>fashionable</b> and attractive masks.	41.7	58.3
	I really like bright <b>colored</b> masks that fit my youth and characters.	13.6	86.4
	I prefer cotton as mask <b>materials</b> , besides being comfortable to use, it also absorbs sweat/is hygroscopic.	15.4	84.6
	Mask with <b>accessories</b> add to my confidence and suit my taste.	96.1	3.9

Mask as a tool that Masks as a tool that is one of the necessities during the Covid-19 pandemic tend to be responded positively by students. Masks at this time require many people (99.6%), are accustomed to using masks when leaving the house (98.2%) and prefer masks made of cotton fabric. The response that

masks can be used to maintain personal health and other people has the highest negative response (14.5%).

The masks that were too fashionable were not liked by many young people (41.7%). Masks designed with bright colors and using cotton received high positive responses (84.6-86.4%). At this time, masks with certain accessories were not liked by most students, only 3.9% responded positively where some of these groups felt they could be more confident when wearing masks.

The questionnaire instrument used in this study, its validity and reliability were checked using the corrected correlation coefficient in the validity section and the Cronbach Alpha coefficient to measure the reliability of the instrument. In the mask values instrument, the correlation coefficient ranges from 0.351 to 0.430 with a value greater than 0.30 indicating good validity. And the Cronbach's Alpha coefficient of 0.601 which has exceeded 0.60 also explains the acceptable consistency.

**Table 2.** Item Validity and Reliability

Variables	Item	Corrected Item-Total Correlation	Cronbach's Alpha if Item Deleted	Cronbach's Alpha Reliability Coefficient
Mask Values	Needs	0.407	0.527	0.601
	Protection	0.351	0.558	
	Health	0.393	0.523	
	Passions	0.430	0.505	
Mask Design	Fashionable	0.463	0.776	0.754
	Colors	0.740	0.594	
	Material	0.757	0.581	
	Accessories	0.328	0.795	

The instrument of mask value, the correlation coefficient ranging from 0.328 to 0.757 is greater than 0.30 indicating good validity. And the Cronbach's Alpha coefficient of 0.754 which has exceeded 0.60 also explains the acceptable consistency. So it can be concluded that the instrument in this study is suitable for use.

### 3.2 Mask Values Factor Analysis

The value of masks is explained by 4 items, namely masks are one of the main needs in this pandemic (necessity), people prefer to use masks when leaving the house (protection), masks for personal health and others (health), and fabric masks are preferred because comfortable to wear (favorite). Exploratory factor analysis is used to determine data structures that can explain considerations in assessing the position of masks for today's society. The application of this factor analysis requires dependencies between items that are determined using the Kaiser Myer Olkin (KMO) value and the Measure of Sampling Adequacy (MSA). Dependency is high if KMO and MSA are more than 0.50.

**Table 3.** Dependency Descriptions Between Mask Values Items

Item	Mean	MSA
Needs	3.73	0.523
Protection	3.76	0.511
Health	3.12	0.514
Passions	3.00	0.547

KMO = 0.522

The KMO value is 0.522 (more than 0.50) and the MSA is in the range 0.511-0.547 (more than 0.50), which explains that the item dependency requirements are acceptable. Furthermore, extraction is carried out into several components where the contribution of each attribute is explained by the size of the factor loading.

**Table 4.** Mask Value Item Extraction

Items	Component	
	1	2
Needs	0.924	0.043
Protection	0.913	0.112
Health	0.026	0.877
Passions	0.121	0.859
Eigen Value	1.895	1.328
% Total Variant	47.383%	33.197%
% Total Variant Cumulative	47.383%	80.580 %

The results of the factor analysis based on the eigen values of more than 1 indicate that there are 2 components used. The first component has a contribution of 47,383% in explaining the total variation. The second component contributed 33,197% in explaining the total variation. So that these two components have a cumulative value of 80,580% in explaining the total variation.

The first component, based on the loading factor, 2 items have a coefficient of more than 0.50, namely protection (0.924) and needs (0.913) and are named the need for protection factor. In the second component, based on factor loading, 2 items have a coefficient of more than 0.50, namely health (0.877) and preference (0.859). The results of this analysis conclude that the main explanations for students assessing the position of masks are: (1) it is a necessity during the pandemic and functions as self-protection when leaving the house, and (2) a feeling of liking for masks made of fabric to maintain personal health and other people. This is following Radika K Cahyadi (2020) opinions that the use of fabric masks is quite useful to minimize exposure to coronavirus droplets in carrying out daily activities in this new normal period, where several companies have begun to provide policies for their employees to be able to work in the office again.

### 3.3 Mask Design Factors Analysis

The mask design is described by 4 items, namely designed in a fashion, using bright colors, using cotton to make it more comfortable and there are additional mask accessories. Exploratory factor analysis is used to determine data structures that can explain considerations in assessing mask designs that are widely used by the community today. The application of this factor analysis requires dependencies between items that are determined using the Kaiser Myer Olkin (KMO) value and the Measure of Sampling Adequacy (MSA). Dependency is high if KMO and MSA are more than 0.50.

**Table 5.** Dependency Description Between Mask Design Items

Items	Mean	MSA
Fashionable	2.72	0.933
Colors	3.13	0.588
Materials	3.10	0.588
Accessories	1.72	0.814

KMO = 0641

The KMO value is 0.641 (more than 0.50) and the MSA is in the range 0.588-0.933 (more than 0.50), which explains that the item dependency requirements are acceptable. Furthermore, extraction is carried out into several components where the contribution of each attribute is explained by the size of the factor loading.

**Table 6.** Mask Design Items Extraction

Items	Komponen	
	1	2
Fashionable	0.910	0.202
Colors	0.888	0.280
Materials	0.732	0.001
Accessories	0.148	0.979
Eigen Value	2.423	0.829
% Total Variant	60.580%	20.719%
% Total Variant Cumulative	60.580%	81.299%

The results of the factor analysis explained that there were 2 components used. The first component contributed 60,580% in explaining the total variation. The second component has a contribution of 20,719% in explaining the total variation. So that these two components have a cumulative value of 81,299% in explaining the total variation.

The first component, based on the loading factor, 3 items have a coefficient of more than 0.50, namely colors (0.910), materials (0.888), and fashionable (0.732) are the main display factors. The second component, based on factor loading, has 1 item having a coefficient of more than 0.50, namely accessories (0.979). The

results of this analysis conclude that the main explanations for students assessing the design are: (1) physically prioritizing colors, materials and looking fashionable, and (2) additional accessories to increase self-confidence and taste. Intifanny Amandara Putri said the same thing. (2020) which states that this fabric material is rated the best because of the material's ability to breathe. The ease of breathing when using a fabric mask is an important factor that will determine the comfort of its users. The comfort of the fabric mask material used will also affect how long the user wears a fabric mask, the problem of color is taste.

#### 4. Conclusion

The results of the study proved that students/Millennials in the Covid-19 era against fabric masks (non-medical) can be explained as follows:

1. Fabric masks (non-medical) are a necessity during a pandemic and function as personal protection when leaving the house.
2. Likes fabric masks (non-medical) made of fabric to maintain the health of oneself and others.
3. Liked the design of the mask more explained by the color factors, materials, and looks fashionable.
4. Liked there are additional accessories to increase confidence and taste.

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