# International Journal of Statistics and Applied Mathematics

ISSN: 2456-1452 Maths 2023; SP-8(5): 263-266 © 2023 Stats & Maths <u>https://www.mathsjournal.com</u> Received: 26-06-2023 Accepted: 09-08-2023

#### Rupanagudi Beena Fareq

Ph.D. Scholar, Department of Apparel and Textile Science, College of Community Science, University of Agricultural Sciences, Dharwad, Karnataka, India

#### Dr. Rupal Babel

Associate Professor, Dept. of Textiles and Apparel Designing, College of Community and Applied Sciences, MPUAT, Udaipur, Rajasthan, India

#### Corresponding Author: Rupanagudi Beena Fareq

Ph.D. Scholar, Department of Apparel and Textile Science, College of Community Science, University of Agricultural Sciences, Dharwad, Karnataka, India

# COVID-19 Pandemic: Personal and situational factors impact on facemask buying behavior of students

# Rupanagudi Beena Fareq and Dr. Rupal Babel

#### Abstract

Face masks are thought to reduce the spread of the coronavirus disease by filtering respiratory droplets.. This study was to explore the personal and situational factors influencing wearing face masks among college students during COVID-19 outbreak. The study was conducted in Udaipur, Rajasthan. Random sampling method was used to select the students (N=200) from various colleges of MPUAT, Udaipur. Most of the students participated in the study are in the age group of 18-25. Personal factors resulting in a range of behavior, attitudes, and opinions concerning any given product and situational factors i.e., about the impact on individuals due to sales/discount offers, advertisements in online websites, availability of facilities near to residence area and the shopkeeper's attitude were identified using self-structured questionnaire and collected necessary information. The results revealed that majority of the students expressed that they preference to purchase mask with more filtration efficiency over comfort during covid 19 pandemic to prevent infection of Corona Virus and are influenced by sales and discount offers upon facemasks, advertisements in online shopping.

Keywords: Personal factors, situational factors, facemask, COVID-19, students

#### Introduction

The severe acute respiratory syndrome coronavirus 2 that causes coronavirus disease 2019 (COVID-19) was initially identified in China in December 2019 and quickly spread throughout the world during the following few months. Both the virus transmission and mortality rates for COVID-19 are high (through respiratory droplets and direct contact). In accordance with the most recent COVID-19 epidemiological update from the World Health Organization, over 240.2 million cases and over 4.8 million fatalities have been reported worldwide as of October 17, 2021. As there is no known cure for COVID-19, blocking virus transmission is the main strategy for infection prevention and outbreak control. (www.who.int/). People all throughout the world have been significantly impacted psychologically and behaviorally by the COVID-19 pandemic. Customer services businesses must update their business strategies to reflect these significant changes in customer purchasing patterns (Tu Hao et al. 2022)<sup>[6]</sup>. Countries all across the world have different policies in place addressing the use of face masks and are at varied stages of the COVID-19 trajectory. In public places with high population density, poor ventilation, and difficulty maintaining physical space, face masks are crucial. However, there are discrepancies between government guidelines and actual public conduct, suggesting that other factors may also contribute to the public's use of face masks.

A study by He *et al.* 2022 <sup>[7]</sup> found that people's perceptions of the protective value of face masks had an impact on how often they used them. People had the misconception that face masks that adhere to medical standards may effectively prevent the spread of the COVID-19 virus. However, there is little and contradictory research on the usefulness of face masks. The findings of this study suggest that some individuals may overestimate the efficacy of wearing medical face masks in public and that more thorough instruction regarding the proper use of masks—including when, when, how, and what kind to wear—is required. In order to determine how attitudes towards mask purchases, subjective norms, and perceived behavioral control affected citizens' intentions to buy masks during the COVID-19 epidemic, Tran 2021 looked at the antecedents of such intentions.

International Journal of Statistics and Applied Mathematics

Six different factors are looked at in total: The purpose to wear masks, subjective norms, perceived behavioral control, perceived severity, and perceptions of susceptibility. The purpose of the current research was to study personal and situational factors influence on facemask buying behavior of students during COVID-19.

### Methodology

Exploratory research design will be used to personal and situational factors influence on facemask buying behavior of students during Covid-19. The sample comprises of 200 college students who were randomly selected from among the five constituent colleges of the Maharana Pratap University of Agriculture and Technology, Udaipur. Of them, 100 were male and 100 were female, and they ranged in age from 18 to 25 years. Random sampling technique was used for the selection of sample. A Questionnaire was developed by the researcher considering the objectives of the present study and sample, in order to gather data from students regarding the personal and situational factors. Personal factors or characteristics differ from individual to individual, resulting in a range of behavior, attitudes, and opinions concerning any given product whereas situational factors included were about the impact on individuals due to sales/discount offers, advertisements in online websites, availability of facilities near to residence area and the shopkeeper's attitude.

# **Results and Discussion**

# Personal factors affecting facemask buying decision

The data in the Table 1. revealed that 43% of boys and 41% of girls stated that they sometimes gave preference to purchase mask with more filtration efficiency over comfort and in contrast 12% boys and 8% girls never preferred comfort over filtration efficiency and 54% and 37% boys and girls respectively have always preferred N95 or surgical masks over cloth masks where as 41% boys and 83% girls sometimes preferred self-made cloth masks over purchased ones and table further revealed that 38% girls and 32% boys sometimes and always tended to purchase low cost masks (Figure 1 & 2).

#### Situational factors affecting facemask buying decision

Data reported in Table 2. revealed that 50% of girls and 49% boys were sometimes influenced by sales and discount offers upon facemasks, whereas similar percentage of boys and girls i.e. 45% were sometimes influenced by adds in online shopping and 33%-boys and 25%-girls never got influenced by attitudes of shopkeepers and 33% boys and 44% girls stated that they were sometimes tended to buy facemasks as the store was located nearer to their residence area which made easy availability of facemasks for them to buy (Figure 3 & 4).

Table 1: Frequency and percentage distribution of students based on the personal factors that affected facemask buying decision

		Always		Some times		Rarely		Never		
S. No.	<b>Personal Factors</b>	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Total
		F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	Total
1	Givemostpreference to filtration efficiency over comfort	25	31	43	41	20	20	12	8	200
2	Prefer N95/Surgical mask over cloth masks	54	37	29	35	13	19	4	9	200
3	Give Preference to self- made cloth masks than purchased one	37	73	41	83	22	32	0	12	200
4	Like to purchase low price mask	32	26	29	38	26	26	13	10	200

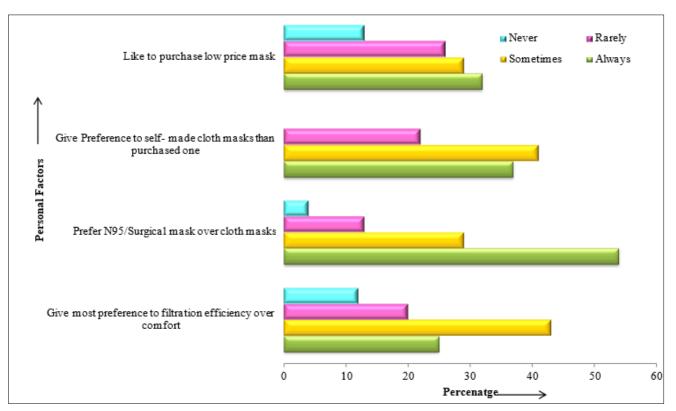


Fig 1: Percentage distribution of boys based on the personal factors that affected facemask buying decision

Table 2: Frequency and percentage distribution of students on the basis of situational factors that influence in facemask buying decision

		Always		Some times		Rarely		Never		
S. No	Situational Factors	Boys	Girls	Boys	Girls	Boys	Girls	Boys	Girls	Total
		F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	F (%)	
1	Sale/discount offers	27	29	49	50	19	9	5	12	200
2	Influenced by adds in online shopping	20	11	45	45	20	26	15	18	200
3	Influenced by attitudes of Shopkeepers	8	15	19	29	40	31	33	25	200
4	I tend to buy facemask very frequently as store is near to my place	19	14	33	44	20	18	28	24	200

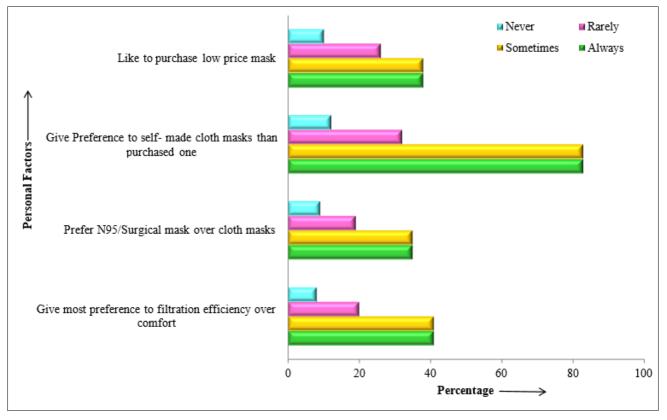


Fig 2: Percentage distribution of girls based on the personal factors that affected facemask buying decision

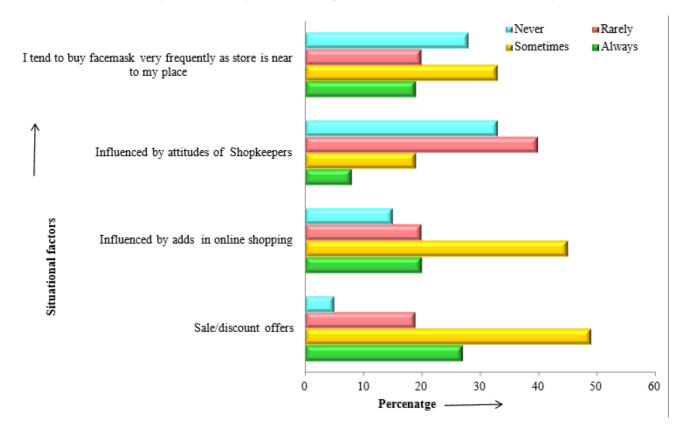


Fig 3: Percentage distribution of boys based on the situational factors that affected facemask buying decision

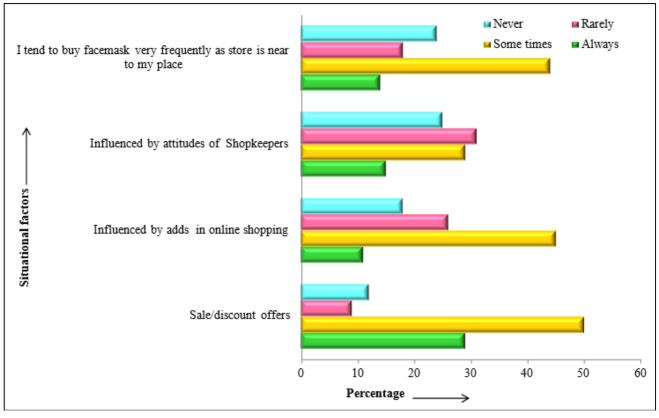


Fig 4: Percentage distribution of girls based on the situational factors that affected facemask buying decision

## Conclusion

The study concluded that the combination of factors has an impact on people's decisions to use face masks were identified such as majority of the students both boys and girls expressed that they preference to purchase mask with more filtration efficiency over comfort and had used N95 or surgical masks during COVID-19 pandemic to prevent infection of Corona Virus. Most of the students influenced by sales and discount offers upon facemasks, advertisements in online shopping and never got influenced by attitudes of shopkeepers.

### Future scope of study

By identifying these variables, policymakers may create workable recommendations for the public use of face masks as an infection preventative and receive direction on how to justify their use.

### Acknowledgements

I thank all the respondents of the study for their cooperation.

**Conflict of interest**: There exists no conflict of interest

### References

- World Health Organization. Naming the coronavirus disease (COVID-19) and the virus that causes it. Accessed July 20, 2023. https://www.who.int/emergencies/diseases/novelcoronavirus-2019/technical-guidance/naming-thecoronavirus-disease-(covid-2019)-and-the-virus-thatcauses-it
- World Health Organization. Advice on the use of masks in the context of COVID-19. Accessed July 20, 2023. https://www.who.int/emergencies/diseases/novelcoronavirus-2019/advice-for-public/when-and-how-touse-masks

- 3. He W, Cai D, Geng G, Klug D. Factors influencing wearing face mask in public during COVID-19 outbreak: A qualitative study. Disaster Medicine and Public Health Preparedness. 2023;17:e141.
- 4. Tran TKP. Critical factors affecting masks purchasing intention of consumers during COVID-19 pandemic: An empirical study in Vietnam. The Journal of Asian Finance, Economics and Business, 2021;8(5):1011-1017.
- Tao H, Sun X, Liu X, Tian J, Zhang D. The impact of consumer purchase behavior changes on the business model design of consumer services companies over the course of COVID-19. Frontiers in Psychology. 2022;13:818845.
- 6. Tu H, Du Y, Yu H, Meena S, Lu X, Lukic S. Distributed Economic Dispatch for Micro grids Tracking Ramp Power Commands. IEEE Transactions on Smart Grid. 2022 Jul 8;14(1):94-111.
- Nasreen S, Chung H, He S, Brown KA, Gubbay JB, Buchan SA, *et al.* Effectiveness of COVID-19 vaccines against symptomatic SARS-CoV-2 infection and severe outcomes with variants of concern in Ontario. Nature microbiology. 2022 Mar;7(3):379-85.