

A STUDY ON CUSTOMER PERCEPTION TOWARDS HAND SANITIZERS BEFORE and AFTER COVID-19.

Danush Vel. S

Sri Krishna Adithya College of Arts and Science, Coimbatore, India

DR. Preetha Leena. R

Assistant Professor

Sri Krishna Adithya College of Arts and Science, Coimbatore, India

ABSTRACT

Hand sanitizers are antiseptics and disinfectants that are used to destroy germs (pathogens) such viruses, fungi, and bacteria. Hand sanitizers aren't always efficient against all infections. The purpose of this study is to learn about consumers' preferences for hand sanitizers as well as doctors' perspectives on the importance of utilizing hand sanitizers. The major goal is to compare hand sanitizer awareness levels before and after COVID-19. The secondary goal is to examine doctors' views on the use of hand sanitizers. To determine the perception of customers for the various brands of hand sanitizers available. In this project, there are two categories of data. Primary and secondary data are the two types of data. Interviews and standardized questionnaires are used to acquire primary data. Secondary information was gathered from the internet, newspapers, and magazines. Moreover, various techniques were used to examine the data collected in this study. T-Test, ANOVA, and regression are a few examples. According to the findings, over half of the respondents believe that using hand sanitizers can prevent Covid-19. The majority of responders purchase hand sanitizers based on the brand name. Manufacturers can create extra skin-friendly sanitizers with a specific focus on youngsters.

Keywords: COVID-19, Hand Sanitizers, Viruses, Customer Perception, Prevention.

INTRODUCTION

Isopropyl alcohol, ethanol, or propanol are commonly used in alcohol-based hand sanitizers. Non-alcohol-based sanitizers are also available; however, in occupational contexts (such as hospitals), the alcohol versions are preferred due to their high level of bacterial elimination efficacy. Hand sanitizers aren't effective against all bacteria. They are ineffective in killing bacterial spores, and they are resistant to parasites and viruses. When hand sanitizers are used on skin that has been contaminated with non-harmful substances such as grease, they are less effective. Many toxic substances, such as paint, insecticides, and chemical fertilizers like phosphates, are also ineffectively removed by them.

STEPS TO USE SANITIZERS:

When using an alcohol-based hand sanitizer, the CENTERS FOR DISEASE CONTROL AND PREVENTION (CDC) recommends the following steps:

1. Rub your hands together after applying the product to the palm of one hand.
2. Rub the product all over your hands and fingers until they are completely dry.
3. Hand sanitizer should never be used near a flame, a gas burner, or any other burning item.

STATEMENT OF THE PROBLEM:

After the widespread of Covid-19 almost the whole world came to know about the importance of using hand sanitizers in day-to-day life. But, in 2022, after the final wave of Covid-19 people are using hand sanitizers less when compared to the first and second waves of Covid-19 spread. So, this research is to find out the users' preferences towards hand sanitizers and doctor's opinions about the significance of using hand sanitizers.

OBJECTIVES OF THE STUDY

- To learn more about the demographics of consumers that use hand sanitizers following COVID-19.

- To compare the awareness level of hand sanitizers before and after COVID-19
- To recognize the benefits and misconceptions about the use of hand sanitizers.
- To analyze the doctor's opinions toward the use of hand sanitizers.
- To identify the customer's preference towards the various brands of hand sanitizers available.

REVIEW OF LITERATURE

- ▲ **FORTUNE BUSINESS INSIGHTS (2019)**, Several industry actors are growing their manufacturing capacity and upgrading their supply networks to meet the rising demand for the commodities.
- ▲ **SAKSHI POST (2020)**, Panic purchasing resulted in overconsumption of hand sanitizers, resulting in a large disparity between demand and supply, which allowed several businesses to profit from the booming hand sanitizer industry.
- ▲ **TechSci Research report (2020)**, an increase in consumer demand for hand sanitizers and other hand hygiene products, mostly to avoid the spread of infectious diseases, which have been on the rise during the last few years.
- ▲ **Lachenmeier (2008)**, Ethanol is widely used as a disinfectant and consumed orally as alcoholic drink. Its capacity to generate skin cancer via skin absorption and carcinogenicity are still unknown due to a lack of recent investigations.
- ▲ **Ellis-Caleo and Burstein (2017)**, A modest amount of systemic toxicity has been associated to ingestion or skin contact with an ethanol-based hand sanitizer. It's hard to say how dangerous an ethanol-based hand massage is because everyone's sensitivities and tolerance levels to ethanol differ.
- ▲ **World Health Organization (WHO) (2020)**, These hand sanitizers can be detrimental to human health and the environment if they are used inappropriately. When released via evaporation, these compounds have a recognized harmful

and detrimental influence on the environment.

- ▲ **Pallavi Singh (2020)**, The best way to deal with the COVID-19 danger is to wash our hands thoroughly. Using a hand sanitizer is not as effective as washing hands under running water to prevent the spread of illnesses.
- ▲ **Dr. Ashima Sharma (2022)**, While some people have drunk it straight, others have combined it with alcohol. Because the usage of hand sanitizers has expanded dramatically during the epidemic, it is simple for them to do so.

RESEARCH METHODOLOGY

A researcher's research technique defines how they propose to perform their study. A method is a way for a researcher to approach a study to obtain reliable, valid results that fit the researcher's aims and objectives. It explains what data they'll collect, where they'll acquire it, and how they'll collect and analyse it. A descriptive research design is used in this study. The sampling units were chosen using convenience sampling procedures. The study was carried out among the people of Coimbatore, Pollachi, and Karur. The study is limited to 116 consumers and has not included the entire population of the Coimbatore district. This study employs both primary and secondary data. During the interview, a self-administered questionnaire was used to collect primary data. Secondary information was acquired from a variety of web resources. The current survey was conducted among residents of Coimbatore, Pollachi, and Karur. T-test, One-way ANOVA, Regression, and Frequencies are the data analysis methods utilized in the study (Measures of central tendency - Mean, Median, and Mode).

ANALYSIS AND INTERPRETATION

FREQUENCIES

		Age of respondents	Gender of respondents	Income of respondents	Profession of respondents	Have you used hand sanitizers before COVID-19?
N	Valid	116	116	116	116	116
	Missing	0	0	0	0	0
Mean		2.49	1.58	2.41	1.16	1.41
Median		2.00	2.00	2.00	1.00	1.00
Mode		2	2	2	1	1

INTERPRETATION

- According to the frequency table given above, the mean of the age is 2.49, gender is 1.58, income level is 2.41, the profession is 1.16, and usage of sanitizers before Covid-19 is 3.37.
- According to the table given above, the median of the age is 2.00, gender is 2.00, income level is 2.00, the profession is 1.00, and usage of sanitizers before Covid-19 is 1.00.
- According to the frequency table given above, the mode of the age is 2, gender is 2, income level is 2, the profession is 1, and usage of sanitizers before Covid-19 is 1.

T-TEST:

A t-test is an inferential method for determining if there is a significant difference between the means of two groups that are connected in some way. A t-test is a type of hypothesis test that is used to determine whether or not a population-based hypothesis is true.

H₁: There is no significant difference between the gender of the respondents with the view that the Covid-19 spread can be interrupted by using hand sanitizers.

T-TEST results are as follows:

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	T	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Do you agree to the view that the COVID-19 spread can be interrupted by using hand sanitizers?	.209	.648	.416	114	.678	.060	.145	-.227	.347
			.409	96.01	.684	.060	.148	-.233	.353

INTERPRETATION:

From the above table, the significance is 0.648 which is more than 0.05. As a result, there is no significant difference in how male and female respondents feel about the notion that hand sanitizers help stop the Covid-19 spread.

ONE-WAY ANOVA:

The one-way analysis of variance (ANOVA) is performed to check if there are any statistically significant differences between the means of three or more unrelated independent variables. The one-way ANOVA looks at the means of the groups you're interested in to determine whether any of them are statistically significantly different.

H₂: There is no significant difference between the income level of the respondents and the people's opinion whether they feel sanitizers can prevent covid-19 or not.

ANOVA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.989	3	.663	1.028	.383
Within Groups	72.253	112	.645		
Total	74.241	115			

THE ABOVE TABLE SHOWS THE ONE WAY ANOVA OF THE RESEARCH

INTERPRETATION:

The significance of using sanitizers to prevent Covid -19 is 0.383, which is greater than 0.05, as seen in the table above. As a result, there is no correlation between income and value for money.

REGRESSION:

Simple linear regression is a statistical approach for describing and investigating relationships between two continuous (quantitative) variables:

- ▲ The predictor, explanatory, or independent variable is designated by the letter x.
- ▲ The response, result, or dependent variable is the other variable, labelled y.

H₃: One’s perception towards hand sanitizers can predict the usage of hand sanitizers.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.252 ^a	.063	.055	.781

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	4.704	1	4.704	7.713	.006 ^a
	Residual	69.537	114	.610		
	Total	74.241	115			

THE ABOVE TABLE SHOWS THE REGRESSION OF THE RESEARCH

INTERPRETATION:

The R^2 value is 0.063, and the corrected R^2 value is 0.055, according to the table above. Only 6.3 percent of the model can be predicted. As a result, the model is unsuitable. That is, one's feelings towards hand sanitizers have no bearing on how they are used. Despite the fact that the significant value is 0.006, it is less than 0.05, indicating that there is a link between the variable's view of hand sanitizers and their use.

FINDINGS

- The majority of responders use hand sanitizers once per hour daily basis.
- The majority of respondents purchase hand sanitizers based on their brand name.
- The majority of people believe that hand sanitizers are not detrimental to their skin.
- Rather than sanitizers, 44 percent of respondents believe that wearing masks protects individuals.
- Pocket sanitizers are preferred by a large majority of responders (67%) because they are easy to carry.

SUGGESTIONS

- ❖ Parents and instructors should teach their children about the need for hand sanitizers and encourage them to use them frequently to maintain their cleanliness and safety.
- ❖ Manufacturers can create extra skin-friendly hand sanitizers with a specific focus on youngsters.
- ❖ Manufacturers can create more inventive sanitizer dispensers for use in business spaces.
- ❖ The use of hand sanitizers has decreased since the third wave, and if the government can make it mandatory in public places, people's personal hygiene in India will improve.

- ❖ The government can also take the initiative to start new sanitizer manufacturing units or acquire existing ones to reassure consumers who have misgivings about hand sanitizers.

CONCLUSION

This research is based on customer perceptions of hand sanitizers. Hand sanitizers are antiseptics and disinfectants that are used to destroy germs (pathogens) such as viruses, fungi, and bacteria. The purpose of this study is to learn about consumers' preferences for hand sanitizers as well as doctors' perspectives on the importance of utilizing hand sanitizers. Simple percentage, Frequency, T-Test, ANOVA, and Regression are the data analysis techniques employed in the study. The majority of responders purchase hand sanitizers based on the brand name. Manufacturers can create extra skin-friendly sanitizers with a specific focus on youngsters. After the third wave, the use of hand sanitizers has declined; if the government can make it mandatory in public locations, this will improve the situation.

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- ▲ **Pallavi Singh (2020)**, COVID-19 is a new illness and a big threat to global health. No specific antiviral agents are available for its treatment. (The IndianExpress.)

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