IMPACT OF COVID-19 PANDEMIC ON PURCHASE AND USAGE PATTERNS OF GREEN COSMETICS AMONG SELECTED WOMEN OF AHMEDABAD CITY, GUJARAT (INDIA)

Ms. Prutha Shah, Dr. Kalpesh D. Naik

Research Student
Faculty of Commerce,
The M. S. University of Baroda,
Vadodara, Gujarat

Asst. Professor & Research Guide,
Faculty of Commerce,
The M. S. University of Baroda,
Vadodara, Gujarat

Abstract

The outbreak of COVID-19 has impacted the lives of people, businesses and the buyers, there has been a major challenge in the buying behavior due to the unforeseeable worldwide lockdown because of which lakhs of people became unemployed and so change in income, break in supply chain which resulted into unavailability and inaccessibility of the product. Cosmetics are commonly referred to as personal care products like skin care, perfumes, make up, shampoos, toothpastes, hair color etc. We know cosmetics have become an important part of the current lifestyle. After the outbreak of the pandemic, people have started becoming more aware regarding their use of cosmetic products and have started taking interest in using environment friendly and hygienic products which is also known as "Green Products" these are least harmful for the skin. This research aims to study the change in the cosmetic purchase behavior of the females in Ahmedabad, Gujarat, India. For the same a close ended structured questionnaire based survey of 150 women of Ahmedabad will be conducted to analyze the impact of Covid-19 pandemic on the factors affecting green cosmetics buying behavior based of the brand of the product, price, variety, advertising, recommendation, social media marketing and considering usage patterns, health, rebuying organic product and environmental safe product. The research method will be stratified and convenience sampling from randomly selected respondents, and the data analysis, content analysis and statistical analysis will be done with the help of IBM SPSS (20 Version). For Data Analysis mean, standard deviation, Correlation, t-test, will be used for hypothesis testing and conclusion will be drawn accordingly. The study will help to contribute to the field of consumer buying behavior and the companies will further get insight to know how to deal in such unfavorable, unavoidable circumstances during pandemic situation and post pandemic situation.

INTRODUCTION

The pandemic has indeed impacted all the lives and it has been a major challenge for all the kinds of businesses, manufacturers and consumers, on the other hand people have started getting more aware about their hygiene, especially the cosmetic industry, the term cosmetic is a mixture of chemical compounds derived from natural resources or synthetically created ones. They are made for personal skin care which includes shampoo, body wash, make up, fragrance and so on, According to the United States Food and Drug Administration (FDA) cosmetics can be defined as the products "intended to be applied to the human body for cleansing, beautifying, promoting attractiveness, or altering the appearance without affecting the body's structure or functions."

The emergence of environmental concern and the awareness among the various people have brought into new policies, new product and marketing strategies for the brands and the demand for green from consumers is increasing, thus the concept of green cosmetics has been emerged and according to some certifying references such as NATRUE and COSMOS standard, natural cosmetics are defined as " The products that take in account during its manufacturing process, life cycle- some points as use of raw materials and methods of production considered more sustainable, working with minimalistic ingredients and preserve in a way which is least harmful to the environment and also have a recyclable packaging."

The history of cosmetics goes way back at least 7000 years and now is present in almost everywhere on the earth. The first use of cosmetics goes way back to the Ancient Egyptians. India too has a long history in cosmetics. The ancient records of India's cosmetic origin was seen in the Indus Valley Civilization but till British

time, natural ingredients were only used in India, but J.R.D Tata launched Lakme in 1952 and that's how cosmetic industry grew in India.

MARKET OVERVIEW- COSMETIC INDUSTRY

According to the Global Cosmetic Market, during the COVID-19 crisis, the global market for cosmetic skin care is estimated at US$145.3 Billion in the year 2020 which is expected to grow by US$185.5 Billion by 2027, growing at a CAGR of 3.6%. The U.S market is estimated at $39.2 Billion whereas China at 6.5% CAGR. The organic personal care and cosmetics products market is expected to reach $19.8 Billion by 2022 by CAGR of 10.2%, India's Natural cosmetics amounts to US$ 834.5m in 2021 and expected to grow by 7.83% by 2025. According to the analysis and figures given by the CII(Conference of Indian Industries) the total beauty and cosmetic market size currently stands at US $950 million and showing growth between 15-20%. The overall beauty and wellness market that includes beauty services is about 2,680 US $ million according to the reports.

LITERATURE REVIEW

Gupta & Kala (2021) In their study "IMPACT OF COVID-19 PANDEMIC ON PURCHASE AND USAGE PATTERNS OF COSMETICS AMONG WOMEN OF GURUGRAM (INDIA)" aimed to study the change in the cosmetic purchase behavior of females in Gurugram, a city in Haryana, for the same a structured questionnaire based survey was conducted of 159 women of Gurugram to examine the impact of Covid-19 pandemic on the factors affecting cosmetics buying behavior like product brand, variety, price and information. For the same, the questionnaire was divided into four categories and the significance testing chi square was used with the significance level of 95% and data was further analyzed by SPSS software version 23 and it concluded that buying preference criteria increased by 5% to 12% as people were forced to stay indoor it was observed that the usage of lip care and eye care products decreased and body care, hair care, skin care remained same. The research also showed a positive the relation between demographics and consumer buying behavior, usage and monthly expense. Thus, the buying and consumption pattern has largely changed in the consumers.

Rachmasari & Wulandhari (2021) In their research paper "THE EFFECT OF GREEN MARKETING AND PRICES ON PURCHASING DECISIONS THROUGH CUSTOMER PREFERENCE AT THE BODY SHOP IN COVID 19 PANDEMIC ERA IN JEMBER REGENCY" the main was to see the changes in the company name Body Shop which is well known in cosmetics industry and is considered one of the pioneers of green marketing. The hypothesis concluded that the effect of price on consumer preference, the green marketing also affected on the purchasing decisions, the consumer preference also affected the purchasing decisions. It further suggested that the company needed an efficient and effective product sales strategy concept and it is needed to determine the role of green marketing and price in increasing purchasing decisions through customer preferences.

Dini & Laneri (2021) In their study "THE NEW CHALLENGE OF GREEN COSMETICS: NATURAL FOOD INGREDIENTS FOR COSMETIC FORMULATIONS" aimed to find out the food products used in the production of green cosmetics. Due to the pandemic, consumer preferences for makeup have declined but the skincare products have increased. The word nurticosmetics which means food supplementation with the advantages of cosmetic treatments have new market demands. The hypothesis showed a significant correlation between the intake of food supplements and skin's wellbeing as reported in the literature. There was no specific legislation that regulated their use as cosmetics. It suggested improving the access of the active ingredients to the sites of use in the body that improves the sustainability and identifying all the food ingredients, the study would be further helpful to the legislators to form the rules for the use of food borne in the cosmetic products.

Sharma & Mehta (2020) In their research study "EFFECT OF COVID-19 CONSUMER BUYING BEHAVIOUR TOWARDS COSMETICS: STUDY BASED ON WORKING FEMALES" they aimed to understand the buying behavior of working females towards cosmetics during COVID-19 towards cosmetic products, for the same a survey of 116 working females was conducted across various cities of India in September 2020 by convenience sampling method and a self-made questionnaire and the data was further analyzed by IBM SPSS statistics 21 and multiple regression analysis was done as it analyzed independent factors alter dependent factor and by what degree of measure. Here, it concluded that the independent variables- social media reviews, safety importance, buying decision independent, personal care products, loyalty sustainable nature do not have a significant impact on the dependent variable – change in buying behavior towards cosmetics during COVID-19 as their p value is >0.05 and thus the research accepts null hypothesis as there is no change observed in the consumer buying behavior among working females and reject H1 as there is change in cosmetic buying behavior. As per the conclusion, the marketers should make their products available online and accessible.

Samanta (2020) In the paper "BUYING BEHAVIOR OF ENVIRONMENTALLY SUSTAINABLE COSMETICS: INDIAN CONTEXT" aimed to investigate the buying behavior of the customers towards green and sustainable

https://www.gapgyan.org/

cosmetic products with mediation and moderation effect which provides several important insights. For the same data had been collected from 155 respondents via questionnaire survey and it was analyzed by two staged process by IBM SPSS Statistics Software 26 and AMOS, further the loading factors were near to 0.7 and AMOS was not showing any error for data imputation. Few variables from factors attitude, moral norms, product knowledge, price, benefit, purchase intention and buying behavior has been deleted as they were showing poor factor loading and model fit, moral norms of consumer influences the relation between attitude and purchase intention and attitude has a negative effect on purchase intention without moral norm as a mediator which claims of other studies both positive attitude and strong moral norm towards environmentally sustainable cosmetics are required to drive purchase intention. Also it further suggested that that price should be reasonable and justified with the benefit in order to create more demand as the perceived benefit drives the perceived price of environmentally sustainable cosmetic products.

Amberg & Fogarassy (2019) their study "GREEN CONSUMER BEHAVIOR IN THE COSMETICS MARKET" aimed to find out up to what extent the characteristics of the consumption of organic foods and natural cosmetics differ. For the same data was collected by an online questionnaire in Hungary during April-May 2018 and 197 respondents were received and as a part of primary research, descriptive statistical analyses and cluster analyses were used by PASW statistics 18 programmer, it showed that 70% of the total respondents wished to buy natural cosmetics and 78% tends to follow a healthy lifestyle and 70% were willing to pay extra for a natural cosmetic product. The hypothesis concluded the market of cosmetic product, health and environmental awareness will increase for producer and the consumer behavior, the consumers further analysis should be extended to the areas where personal and social/environmental preferences also taken into consideration. It further suggested examining the extent to which education backgrounds, knowledge of healthy lifestyle and knowledge of harmful effects changes the consumption habits of each product category.

RESEARCH METHODOLOGY

1.   Rationale of the proposed study
The study would be useful to the researchers, consumers, companies, government who want to know about the impact on the consumers due to COVID-19 towards green cosmetics and it will further help to know how the consumers are aware regarding the green cosmetics and their income effect while purchasing green cosmetics.

2.   Scope and coverage of the proposed research
It will be done on the basis of the response of the people living in Ahmedabad city.

3.   Objectives of the study
1.   To find out the awareness among people regarding Green Cosmetics.
2.   To analyze the effect of purchase intention on buying behavior of Green Cosmetics post COVID
3.   To understand and analyze the effect of demographic factors on Green Cosmetics.
4.   To understand the factors which affect the measures on Green Cosmetics.

4.   Hypothesis
$H_{01:}$ Awareness on green cosmetics does not have a direct relation with respect to age of the respondents.
$H_{02:}$ Advertising & brand influence on purchase of green cosmetic products are not associated.
$H_{03:}$ Reason for not buying green cosmetic products are independent of responses.
$H_{04:}$ Price sensitivity is indifferent towards the purchase of green cosmetic product.

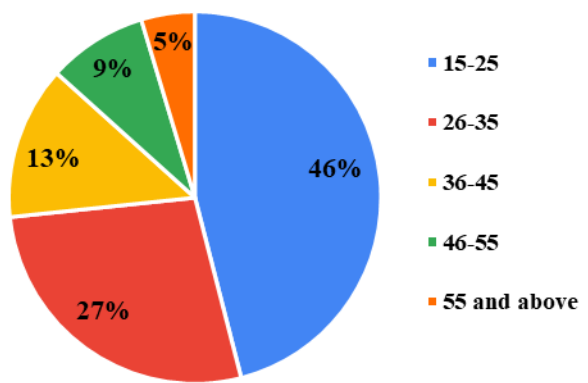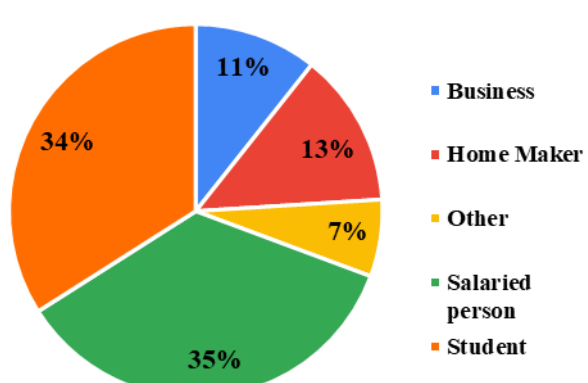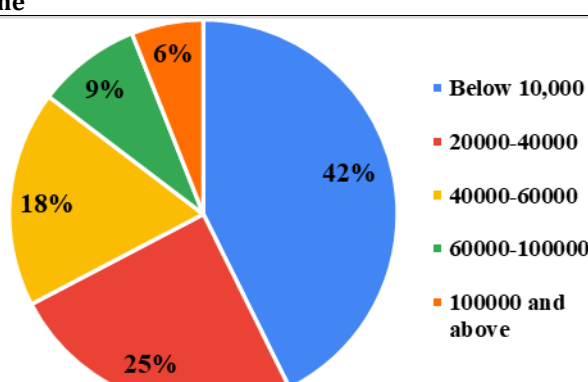### 5.   Research Design and Data Collection
Research Design of the proposed project work, considering its objective, scope and nature.
- Research Instrument: The primary data is collected from the selected respondents through a structured non-disguised Questionnaire
- Target Population: Females of the Ahmedabad city have been taken and further demographic classification has been with respect to age, income, occupation and their influences on the same
- Sampling frame: Demographic survey was conducted according to the sample sizes
- Sample size: The survey was conducted of 150 females was collected from the city of Ahmedabad, Gujarat
- Sampling Method: Simple Random method to draw the sample from the respondents of Ahmedabad, Gujarat,

Secondary data will be collected in the forms of article, journals, magazines, newspaper, research papers and reports.
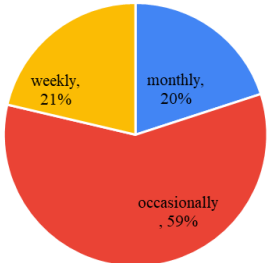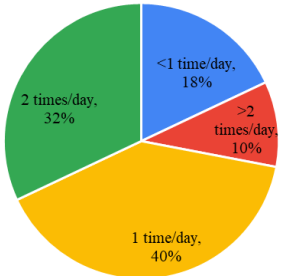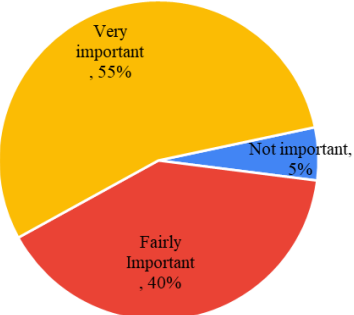
DATA ANALYSIS, INTERPRETATION AND FINDINGS
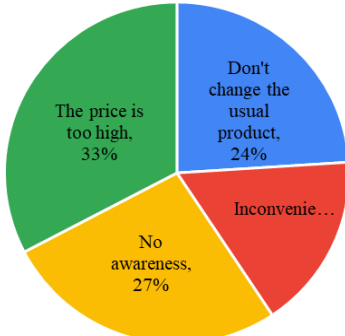
1. **Demographic study of the research**

Age

Explanation: The graph shows the age classification where it can be concluded that maximum number of respondents belonged to the age of 15-25, 46% (69) respondents of 150.

Occupation

Explanation: The graph shows the classification of occupation. Out of the total 150 respondents, 52 respondents were salaried, 51 were students, 20 were home maker, 16 businesses and remaining 11 other category.

Income

Explanation: The graph shows the income classification, it was observed that 63 respondents belonged to the category having income less than 10,000. 37 respondents had income between 20000-40000. 27 respondents had income between 40000-60000. 13 respondents between 60000-100000 and 10 respondents had income more than 100000.

https://www.gapgyan.org/

2. **Questionnaire: Overview**

Questions	May be	No	Yes
Do you use cosmetic products?	31%	7%	62%
Are you aware about the environment and the negative impact of human?	16%	10%	74%
Are you aware about the cosmetic companies using harmful ingredients that may cause allergies, blemishes or even cancer?	11%	10%	79%
Do you see the pricing of the cosmetic product while purchasing?	9%	7%	84%
Will the choice of cosmetic product change with the increase in income?	21%	17%	61%
Do you think branded cosmetics are better than unbranded?	22%	11%	67%
Does advertising impact you on the purchase of cosmetic products?	20%	25%	55%
Would you prefer natural cosmetic product over ordinary product?	20%	2%	78%
Do you research on internet before purchasing a cosmetic product?	13%	22%	65%
Are you willing to pay more for natural/green cosmetic product?	46%	7%	47%

Explanation: From the above data, it can be concluded that maximum number of respondents use cosmetic products and they are aware that humans do have a negative impact on the cosmetic products, , more than 80% of the respondents see the price of the cosmetic product before purchasing, and 61% of the respondents would change the product with their change in income, 67% of the respondents think that branded products are better than unbranded, advertising does impact the purchase of cosmetic product, 78% of the total respondents will choose green product over a normal product, 65% of the respondents do research on internet before purchasing cosmetic product and 47% of the respondents will pay more whereas 46% of the respondents may pay more.

If yes, how often do you buy cosmetic products?	**How often you use cosmetic product in a day?**
weekly, 21%; monthly, 20%; occasionally, 59%	<1 time/day, 18%; >2 times/day, 10%; 2 times/day, 32%; 1 time/day, 40%
How important is environmental protection for you during your purchasing decisions?	**If you don't buy natural/green cosmetic products, what is the reason?**
Very important, 55%; Fairly Important, 40%; Not important, 5%	The price is too high, 33%; Don't change the usual product, 24%; Inconvenie…; No awareness, 27%

3. **Hypothesis testing**

H_{01}: Awareness on green cosmetics does not have a direct relation with respect to age of the respondents.

Regression Statistics								
Multiple R	0.141902509							
R Square	0.020136322							
Adjusted R Square	0.006804843							
Standard Error	1.166033046							
Observations	150							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	2	4.107272727	2.053636	1.510434261	0.224220833			
Residual	147	199.8660606	1.359633					
Total	149	203.9733333						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.571666667	0.383049694	6.713663	3.85727E-10	1.814671102	3.328662232	1.814671102	3.328662232
H1	-0.143181818	0.322939679	-0.44337	0.65814986	-0.781385969	0.495022332	-0.781385969	0.495022332
H1	-0.506818182	0.322939679	-1.56939	0.118707225	-1.145022332	0.131385969	-1.145022332	0.131385969

Explanation: If t-stat is larger than critical two tail, we reject H$_{02}$. Since, **p value is more than 0.05 hence we accept the null hypothesis**; so here it can be concluded that the awareness on green cosmetics have a direct relation with the age as we fail to reject the hypothesis.

H$_{02}$: Advertising & brand influence on purchase of green cosmetic products are not associated.

Regression Statistics								
Multiple R	0.167721636							
R Square	0.028130547							
Adjusted R Square	0.014907833							
Standard Error	1.212295569							
Observations	150							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	2	6.253233083	3.126616541	2.127441299	0.122795654			
Residual	147	216.0401003	1.469660546					
Total	149	222.2933333						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	2.639097744	0.316258546	8.344747614	4.78454E-14	2.014097072	3.264098417	2.014097072	3.264098417
H2	-0.28320802	0.336505913	-0.841613801	0.401371215	-0.948222213	0.381806173	-0.948222213	0.381806173
H2	-0.370927318	0.240971126	-1.539301929	0.125880417	-0.847142483	0.105287846	-0.847142483	0.105287846

Explanation: If t-stat is larger than critical two tail, we reject H$_{02}$. Since, **p value is more than 0.05 hence we accept the null hypothesis**; so here it can be concluded that advertisement and brand purchase on green cosmetics do have an influence with the income as we fail to reject the hypothesis.

H$_{03}$: Reason for not buying green cosmetic product does not have a direct relation with respect to occupation of the respondents.

Regression Statistics								
Multiple R	0.148870683							
R Square	0.02216248							
Adjusted R Square	0.002069929							
Standard Error	0.340720265							
Observations	150							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	3	0.38414966	0.128049887	1.103019697	0.349977978			
Residual	146	16.94918367	0.116090299					
Total	149	17.33333333						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.12	0.068144053	1.760975384	0.080336145	-0.014676203	0.254676203	-0.014676203	0.254676203
The price is too high	0.084081633	0.083742473	1.004050034	0.317015669	-0.081422439	0.249585705	-0.081422439	0.249585705
Don't change the usual product	-0.036666667	0.088703678	-0.413361289	0.679948432	-0.211975795	0.138642462	-0.211975795	0.138642462
No awareness	-0.02	0.086866964	-0.230237124	0.818229796	-0.191679147	0.151679147	-0.191679147	0.151679147

Explanation: If t-stat is larger than critical two tail, we reject H$_{03}$. Since, **p value is more than 0.05 hence we accept the null hypothesis**; so here it can be concluded that reason for not buying green cosmetic product

advertisement and brand purchase have a direct relation with occupation as we fail to reject the hypothesis.

H_{04}: Price sensitivity is indifferent towards the purchase of green cosmetic product.

Regression Statistics								
Multiple R	0.134753177							
R Square	0.018158419							
Adjusted R Square	0.011524354							
Standard Error	0.492350206							
Observations	150							
ANOVA								
	df	SS	MS	F	Significance F			
Regression	1	0.663508617	0.663508617	2.737148241	0.100158854			
Residual	148	35.87649138	0.242408726					
Total	149	36.54						
	Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%
Intercept	0.705921343	0.086075642	8.201174309	1.0537E-13	0.535825331	0.876017356	0.535825331	0.876017356
H4-1	-0.060539107	0.03659206	-1.654432906	0.100158854	-0.132849499	0.011771285	-0.132849499	0.011771285

Statistics								
0.279141837								
0.077920165								
0.071689896								
0.290014885								
150								
df	SS	MS	F	Significance F				
1	1.051922227	1.051922227	12.50670927	0.000541785				
148	12.44807777	0.084108634						
149	13.5							
Coefficients	Standard Error	t Stat	P-value	Lower 95%	Upper 95%	Lower 95.0%	Upper 95.0%	
1.058550597	0.050702157	20.87782179	5.88582E-46	0.958356924	1.158744269	0.958356924	1.158744269	
-0.076226248	0.021554255	-3.536482612	0.000541785	-0.118820097	-0.0336324	-0.118820097	-0.0336324	

Explanation: Here, for hypothesis testing the frequency of the consumers green cosmetic product was tested, and if consumers use for 2 or less than 2 times for a day, **we fail to reject the hypothesis** as the p-value is more than 0.05, but if the consumers use it for more than 2 times a day, **we fail to accept the hypothesis as p-value is less than 0.05.**
.

LIMITATION

As the research was conducted through the questionnaire, few people were not ready to fill the responses and they had to be convinced for the same. Also, here only female respondents had been collected, that might be more heterogeneous and there could be other factors that might be responsible for the influence of the buying behavior of green cosmetic products.

RESEARCH GAP

The concept of green marketing is fairly new and therefore consumers are yet not completely aware about the same. Also there is not standardization in the products and consumers may end up buying fake or less authentic product. Thus, with the change in the increasing demand of green cosmetic products the companies, government, academicians and NGO's should try to bring awareness among consumers towards the purchase of green products.

CONCLUSION AND RECOMMENDATIONS

The COVID-19 Pandemic has caused threat to all the sectors of the economy including the cosmetics industry, and a major decline has been observed in the consumer purchasing decisions and green marketing has had a huge impact on the change, the concept of the green cosmetics has become a necessity. The above study will help the companies for the environmental sustainable cosmetics products and it is further recommended to keep the price reasonable for the products and the product knowledge of the consumer and other benefits should match the price expectations of the consumers.

REFERENCES

[1] Sharma, M., & Mehta, D. (2020). EFFECT OF COVID-19 CONSUMER BUYING BEHAVIOUR TOWARDS COSMETICS: STUDY BASED ON WORKING FEMALES. Retrieved 19 August 2021, from https://www.archives.palarch.nl/index.php/jae/issue/view/119

[2] Cosmetics - Wikipedia. (2021). 19 August 2021, from https://en.wikipedia.org/wiki/Cosmetics

[3] Samanta, P. (2020). Buying Behavior of Environmentally Sustainable Cosmetics: Indian Context. Retrieved 19 August 2021, from https://doi.org/10.17762/pae.v57i9.1209

[4] Barros, C., & Barros, R. (2020). Natural and Organic Cosmetics: Definition and Concepts. Retrieved 19 August 2021, from https://www.scribd.com/document/503405357/natural-and-organic-cosmetics-definition-and-concepts

[5] Markets, R. (2021). Global Cosmetic Skin Care Industry (2020 to 2027) - Market Trajectory & Analytics. Retrieved 19 August 2021, from https://www.globenewswire.com/news-release/2020/09/25/2099275/0/en/Global-Cosmetic-Skin-Care-Industry-2020-to-2027-Market-Trajectory-Analytics.html

[6] Natural Cosmetics - India | Statista Market Forecast. (2021). Retrieved 19 August 2021, from https://www.statista.com/outlook/cmo/beauty-personal-care/cosmetics/natural-cosmetics/india

[7] Gupta, A., & Kala, D. (2021). IMPACT OF COVID-19 PANDEMIC ON PURCHASE AND USAGE PATTERNS OF COSMETICS AMONG WOMEN OF GURUGRAM (INDIA). Retrieved 19 August 2021, from https://www.academia.edu/49510795/IMPACT_OF_COVID_19_PANDEMIC_ON_PURCHASE_AND_USAGE_PATTERNS_OF_COSMETICS_AMONG_WOMEN_OF_GURUGRAM_INDIA_

[8] Amberg, N., & Fogarassy, C. (2019). Green Consumer Behavior in the Cosmetics Market. https://doi.org/10.3390/resources8030137https://doi.org/10.3390/resources8030137

[9] Rachmasari, R., & Wulandhari, D. (2021). Retrieved 20 August 2021, from http://www.iosrjournals.org/iosr-jbm/papers/Vol23-issue4/Series-6/B2304061721.pdf

[10] Dini, I., & Laneri, S. (2021). The New Challenge of Green Cosmetics: Natural Food Ingredients for Cosmetic Formulations. Retrieved 20 August 2021, from

https://www.gapgyan.org/