

Rightward shift of Demand curve - Organic Vs Cosmetic shampoo

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ABSTRACT: In recent times and with advanced communications, the consumers have shown a clear preference of shampoos per their choice. This study analyses the factors responsible for consumer preference and the shift to organic shampoos from cosmetic shampoos. In this study an analysis was made to know the consumer preference of factors influencing their buying choice of shampoos of few residents of Singapore. The results have shown that the respondents are ready to spend more money on good quality innovative products and preferred choice of ingredients in shampoos and a clear shift towards organic shampoos was well observed.

Keywords: Shampoo, Consumer, Preference, innovative products, ingredients, Behaviour

I. INTRODUCTION

Hair is an integrated and complex structure consisting of various morphological components that act as a unit. Shampoos are scalp cleaners which can prevent the hair damage and can be used to treat many scalp diseases with the help of ingredients that constitute the shampoo. They generally are composed of about 20 to 30 various ingredients and based on their chemical formulation they can be classified as cleansing agents, conditioners etc. Common ingredients of a shampoo include surfactants, foaming agents, conditioners, preservatives, special additives, thickeners (Polyethylene Glycols), Formaldehyde, parabens, Synthetic Fragrances etc. The quality of ingredients used differentiate the organic shampoos with the synthetic (conventional hair shampoo). Organic shampoos gently infuse hair follicles and skin cells with herbal extracts and natural oils and minerals. Organic shampoos are environmentally friendly. The chemicals used in synthetic shampoos have chemicals harsh to hair and skin. Alcohol is a cheap ingredient which is widely used in shampoos which will extract the moisture from the hair and make hair dry and fizzy. Sulphates reduce the surface tension of water which can loosen the hair. Hence many people see a change in the form of

organic shampoo. Synthetic detergents used in shampoos available in the market are harmful and toxic; affecting the health as well as the environment (Global Healing Centre, 1998), The non-biodegradable chemicals released during the preparation of shampoos affect the aquatic life and algae [Ogeleka, 2011]. The younger generations are increasingly preferring the usage of organic shampoo and this article tries to address the reasons and the trend in usage of organic shampoos among people in Singapore.

II. BACKGROUND RESEARCH

A sudden surge in the market dynamics of organic shampoo is due to the shift in the thinking styles and more awareness of younger generations. They tend to be more environmentally friendly and are ready to save themselves from harsh chemicals and without any side effects. About 40% young people prefer organic shampoo over any other synthetic shampoo in 2018. In 2019 the United States had generated revenue approximately 12 million USD alone in hair care market. Americans spend about 473 million USD for shopping on haircare, shampoo holds the largest market compared to any other market. The shampoo and hair care product market is estimated to grow more than 2-3% during the period 2018 to 2023. As the per capita income of Singapore is quite high and the awareness among individuals is quite high compared to many nations, the organic shampoo market is expected to go beyond the expectations.

In a survey done by Nielsen, close to half of Singaporeans (49%) believed that they were better off than five years ago. Some 67% indicated that they lived comfortably and were able to buy things they want, supported by a 23% increase in disposable income from 2014(1). Personal electronics topped the charts for having the highest number of Singaporeans (36%) willing to pay a premium; meat and seafood was third at 26%; cosmetics was next at 23%; dairy products and

haircare weighed in at 22%. In the same survey, more than 80% of Singaporeans said they were willing to pay premium prices for products that contain 'organic or all-natural ingredients' and 'environmentally friendly or sustainable materials. As per Euromonitor, a research company the beauty and personal care market of Singapore will be worth US\$1.74 billion by 2021. This is because Singaporeans have the disposable income. Credit Suisse Research Institute's 2018 Global report has stated that the average wealth per adult is about 280000 USD, As is known that Singaporeans tend to spend more on beauty products, reports suggest that the revenue in this industry is estimated to be 1 billion USD in 2019.

III. SCOPE OF THE STUDY

This research study has a wider scope and covers some aspects such as:

- It helps to identify the preference of consumers in the selection of shampoo whether organic or chemical.
- It shows the factors leading to increase in buying organic shampoos.

It shows that the various reasons for selection of a particular shampoo.

IV. STATEMENT OF THE PROBLEM

The problem of the study is consumer preference and behaviour towards selecting and using the shampoo. For this purpose, consumer preferential statuses are analysed. This study analysed that, on what basis the consumers prefer their brand, and which factors motivates them to buy a particular brand and the reason to buy the preferred brand.

V. OBJECTIVES OF THE STUDY

The following are the important objectives of the study.

1. To examine the consumer awareness of shampoo usage of the consumers in Singapore
2. To analyse the relationship between a type of shampoo and its buying behaviour.
3. Also, to check if the respondents have knowledge of consumer rights about the product chosen to buy.
4. To identify the shampoo brand preference of the consumer in Singapore.

5. To analyse the factors influencing the purchasing decision.

VI. METHODOLOGY:

- The present study has been conducted among 150 respondents at Singapore. These respondents have been chosen for the study, as Singapore is a country where different regional and cultural background prevail.
- This study will be helpful in evaluating the attitude of the select respondents towards usage of shampoo. Also, various reasons for consumer switching to other brands have been studied.
- For the given study, primary data has been used. The primary data was collected by a questionnaire. Copies of the questionnaire were given personally to respondents. The questionnaire contained a total of 20 items. The respondents are randomly selected and were personally met to collect their responses.

VII. COLLECTION OF DATA

- Primary data were collected from selected group of consumers through a well-defined questionnaire.
- Secondary data were also collected from some books and journals and mostly from internet.
- The questionnaire used was a printed, well-structured formalized schedule to obtain and record specified and relevant information with fair accuracy and completeness. The questionnaire was designed in such a way that it could be understood and answered easily by the respondents. Keeping the considerations in mind, firstly the period in which respondents were asked to respond was reduced, since it has been found that the longer the reporting period, the less accurate the reporting. Secondly, to help respondents to think deeper and clearly more questions were framed in a way that stimulated association, thereby assisting the recall process about the event.

VIII. DATA PRESENTATION

The data were classified and presented in various tables and diagrams. Simple arithmetic mean was calculated in suitable places.

TABLE 1 A: SAMPLE SIZE

Agegroup	Respondents	%
15-25	53	35
26-35	48	32
36-45	49	33

TableB: Gender distribution

Gender	Respondents	%
Male	38	25
Female	112	75

Table2: Frequency of usage/week

Frequency of usage/week	Respondents	%
ONCE	12	8
TWICE	67	45
THRICE	71	47

Table3: Frequency of buying/month

Frequency of buying/month	Respondents	Percentage
ONCE	142	95
TWICE	8	5
THRICE	0	0

Table4. Awareness and usage of Brands

Brands	Respondents	(%)
COSMETIC	26	17
MEDICATED	5	3
HERBAL/ORGANIC	119	80
OTHERS	0	0

Table5. Usage of Shampoo Brands (last 6 months)

Usage of Brands	Respondents	(%)
ONE	139	92
TWO	11	8
MORE THAN THREE	0	

Table6.ToWhichModeofPromotion Consumergetsattracted

Modeof promotion	Respondents	(%)
ADVERTISEMENT	98	65
CELEBRITY	4	2
BANNER	14	9
OTHERS/SOCIAL MEDIA	34	24

Table7.ReasonsforSwitching toOtherBrand

Modeof promotion	Respondents	(%)
IMPACTOFPACKAGING	0	0
PRICERISEOFCURRENTBRAND	9	6
SCHEMEOFBRANDS	32	21
ADVERTISEMENTIMPACT	21	14
BRANDNOTAVAILABLE	76	51
TOTRYNEWOPTION	4	3
INFLUENCEBYOTHER	8	5

Table8.Factoreffectingconsumers'buying decision

Factors	Respondents	(%)
ADVERTISEMENT&SALESPROMOTION	8	5
PRICE&DISCOUNT	7	5
QUALITY	35	23
INCOME	91	61
WORDOFMOUTH	9	6

Table9:Factorsinfluencingpurchaseofthe brand

Factors	Respondents	(%)
FAMILY	14	9
DOCTORS	3	2
ADVERTISEMENTS	36	24
SELF	90	60
OTHERS	7	5

Figure: 1

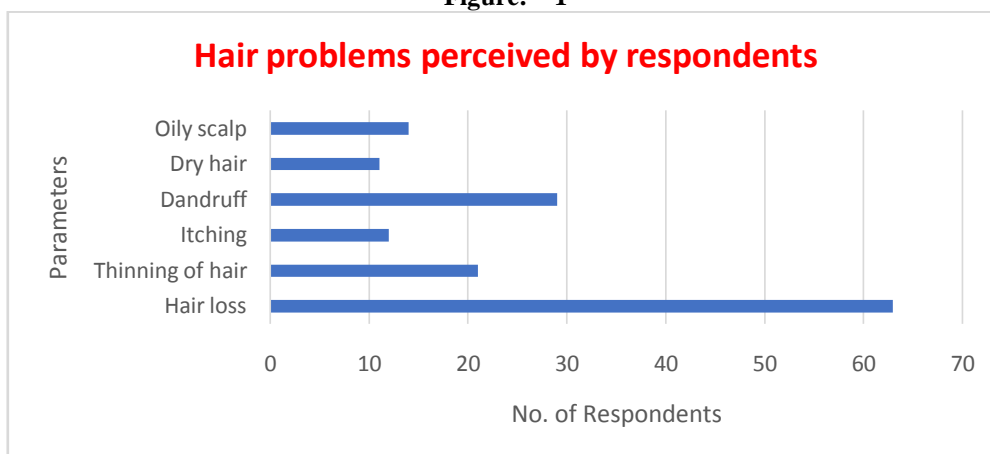


Table 11: Side effects experienced due to usage of chemical shampoo.

Age range	Irritation	Hair loss/Hair thinning	Greying of hair
15-25	15	38	0
26-35	14	32	2
36-45	2	28	19
Total	31	98	21
%	21	65	14

Table 12: Personal Monthly expenditure on shampoo

Monthly expenditure (\$)	frequency
10-15	40
26-35	75
35 -50	35

Table 13: Calculating mean and standard deviation:

Monthly exp (S\$)	f	Midvalue(x)	fx	fx ²
10-15	40	12.5	500	6250
26-35	75	30.5	2287.5	69768.75
35 -50	35	42.5	1487.5	63218.75
			Mean = 28.5	SD = 10.77

Table 14: Customer preference of shampoo

Age range	Customised products with choice ingredients	Colour shampoos	Natural ingredients	Premium products
15-25	36	2	25	1
26-35	31	0	14	3
36-45	9	0	36	4

Table 15: Factors leading to increase in buying organic shampoos (multiple choices offered)

Age range	Awareness	Online shopping	Social media advertising	Rise in disposable income	Innovative products	Pricing & Packaging
15-25	37	3	2	2	28	6
26-35	28	6	5	6	13	0
36-45	35	2	2	0	32	2

Figure 2

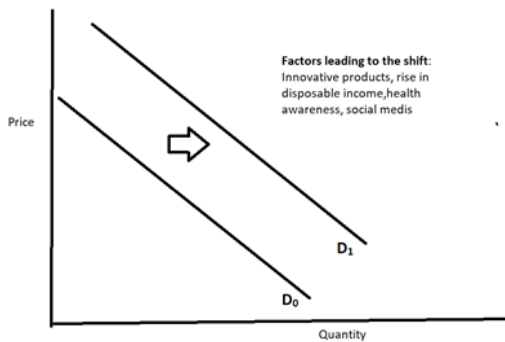
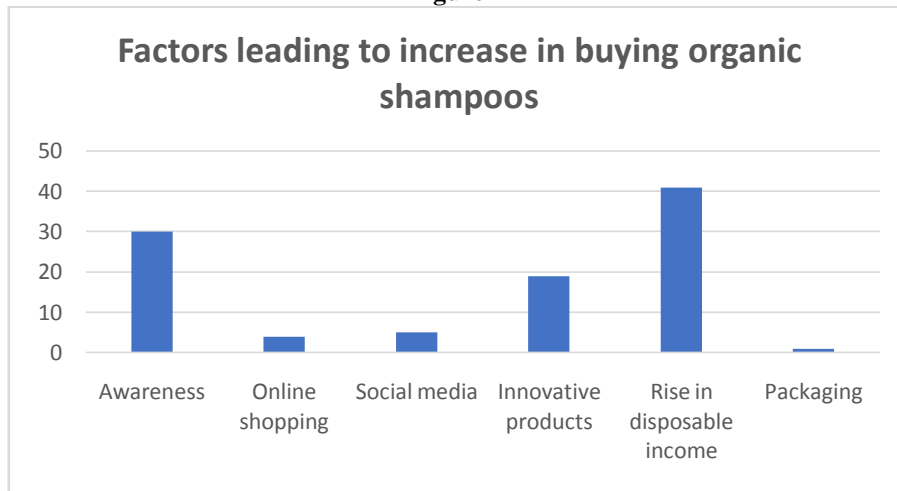


Figure shows the initial demand as D_0 . As a result of various factors affecting the demand other than price, the demand curve shifts to the right to the new demand curve D_1 indicating an increase in demand for organic shampoo

Table 16: Ingredients preferred in your shampoo (multiple choices offered)

Age range.	Aloe vera	Rosemary	Lavender	Henna	Cedarwood	Combinations of one or two items
15-25	14	32	9	5	5	32
26-35	34	5	32	19	3	35
36-45	37	14	29	42	2	38

Table 17: How do you react to the price variation of your favourite brand?

Age range.	Switch to another brand	Reduce buying quantity	Mix low price demand	Continue normally
15-25	5	21	4	29
26-35	3	17	4	24
36-45	8	10	32	7

Table 18: What action do you take when you have a complaint against the product?

Age range.	Inform the retailer	Inform the company.	Switch the brand permanently.	Throw away the product & buy the same product again.
15-25	3	0	33	17
26-35	4	2	22	20
36-45	1	0	28	20

IX. RESULTS & DISCUSSION:

a) The data from table 2 revealed that most of the respondents use shampoo thrice in a week (47%), 45% twice in a week and 8% respondents once in a week. About 95% of respondents stated that they buy once a month and 5% twice a month as seen from table 3.

Table 4 examined awareness of the people regarding various brands of shampoos like Cosmetic shampoos (Sun silk, Head and Shoulders, Pantene, Clinic-plus, Dove etc), Herbal/ Organic shampoos, Medicated shampoos, and others. Most of the respondents (80%) use Organic shampoos. 17% respondents are aware of cosmetic shampoos, 3% are aware of medicated shampoos. Table 5 identified the usage of different brand by the respondents. An examination of the data revealed that most of the respondents (92%) used only one brand, 8% respondents used two brands.

b) Table-6 shows that by which mode of promotion consumer gets attracted. Majority of the respondents 65% preferred advertisements, 2% of the respondents preferred celebrity endorsements, 20% preferred other mode of promotion and 9% preferred banners. Advertisement creates attention and stimulates the consumer to buy a particular brand. Other mode of promotion included free gifts, vouchers, free samples etc. Table-7, given above shows the reasons for switching to other brand by the consumers. The data revealed that about 14% respondent switched to other brand due to advertisement impact, 6% respondents changed due to price rise, 51% respondents changed due to non-availability of product in the market. 21% respondents due to scheme (offer), 0% respondents switched to other brand due to impact of packaging while other 5% respondents switched to other brand to try new options. The Table-9 shows the recommendation for buying shampoos by different people, the data pertaining to this revealed that about 60% of the total respondents take a self-decision and concentrate on the important ingredients present in the shampoo. About 2% respondents are ready to accept Doctor's suggestion, 24% of the respondents consider a promotion technique.

c) Kathuria et al (2010) has a survey conducted to know the brand awareness and brand loyalty of consumers towards hair shampoos and their findings cited that the major sources of awareness for hair shampoos are television advertisements, and friends and relatives. Ankita Shrivastava et al, (2014) in a study conducted on college girls revealed that advertisement has significant impact on consumers' mind and decides the buying pattern. It is also observed that consumers

switch to other brands after watching endorsements occasionally. It was also seen that consumers often switch to other brands occasionally. Contrary to the above studies, in our survey (Table 8) we found that income was one of the factors to choose buying options and go for organic shampoos as these are found to be expensive compared with chemical shampoos. The quality of the shampoo also dominated the buying choice among the respondents. The variation in the results could be due to the different age levels, society variations and their financial situations. It is also found that the Quality and Advertisement & sales promotion and price discount also, have occurred as the variables considered by consumers in their buying decisions.

d) Hair loss is perceived to be the most important issue faced by 42% of the respondents (Table 10). It is observed across the age ranges and one possible reason for the shift to organic shampoos. Dandruff (19%) and thinning hair (14%) also are seen as contributing factors detrimental to hair health. As per the statistical survey (Hischmann, 2019) done on wide sample in Singapore, almost similar results were obtained. However, the percentage of respondents in that survey also cited thinning hair as a big issue apart from hair loss. Many ingredients in chemical shampoos create problems for hair growth and an awareness is needed in these areas. In this survey (Table 11) it is found that 65% felt that hair loss/ hair thinning is due to usage of chemical shampoos and the next factors contributed to usage of chemical shampoos are thinning hair and greying hair.

e) Table 14 indicates that most respondents in the survey preferred customised products and natural ingredients in their shampoos. It is understandable as every human may have different type of hair conditions. Various ingredients in the correct proportion are mixed to provide a shampoo which is suitable for individuals having different hair types and hair need. (Paschal et al, 2015), Maria et al, 2016 observed that Hair cosmetics are an essential tool that helps to increase patient's adherence to alopecia and scalp treatments and reviewed the formulations and the mode of action of hair cosmetics:

Organic shampoo Vs chemical shampoo!!

f) The damage caused to the hair due to sodium lauryl sulphate was visible in the micrographs. The laboratory formulations were found to be

better than the commercially available product. Thus, quantitative measurements from SEM micrographs are a valuable tool to compare the conditioning effects of hair care products (Bellare,2001). In a study conducted(Khaloud,2014) on 20 student volunteers found that herbal shampoos provided good cleansing and detergency, lesser surface tension, small bubble size and good foam stability , On formulation of natural shampoos (Manikar et al 2001) , found that the benefits were huge in organic and natural shampoos compared with the synthetic shampoos. Consumer behaviour and expectations changes with lifestyle and education and so the companies would tend to adjust their product in tune with the consumers expectations (Aslan et al 2016).

- g) When asked about the factors leading to increasing buying organic shampoos (Table 15), majority of respondents cited awareness and innovative products as the main reasons. Singapore is a highly educated and informed society and so these responses were not a surprise at all. With the innovative products many companies are coming forward to address and offer customized solutions. Exposure to social media and news channels along with peer group discussions could also be reasons or more awareness among the respondents. Nora Amberg et al (2019), in their research supported that green or natural products' role in the cosmetics industry is getting more and more pronounced and the role of science will be able to distinguish the parameters in suggesting the consumer to change to organic shampoos,
- h) Majority of the respondents in our survey (Table 16) expressed that combination of one or more ingredients would be beneficial for their hair and felt that a suitable combination of natural ingredients would address their challenges of hair fall and thinning better than a single choice. Aloe vera and Henna were more preferred choices among the respondents. It is understandable that henna is a product which is used to treat various hair issues since a long time in traditional Asian medicines and found that henna can restore hair shine and health as well treating hair loss. Aloe vera barbadensis has been treasured as a sacred botanical since ancient times, revered across many cultures for its numerous health and healing properties for the hair and the body as a whole. (Umar 2020). Aloe vera gel is rich in proteolytic enzymes that heal and repair damaged cells in the scalp.

- i) As can be observed from table 13 the mean expenditure was about \$28 and standard deviation for this was10.77. This data indicates that people are spend more for their well-being and pay well for a quality product.
- j) Quitesurprisinglyanextremelymajorityofrespondentsabout88%arenotawareoftheconsumerrightsabouttheshampoos they use. To provide a satisfactory consumer protection, specific legal regulations along with risk assessment must be made and the public awareness must be taken up. Herman et al (2019) in their article described the background and pathway towards the development and implementation of an international legal framework for the classification and labelling of chemicals that contain potentially skin sensitising substances. A recent example of consumer rights awareness in shampoos can be seen from the example where Procter & Gamble company has paid an amount equivalent to 500 USD to a complainant in India. Hence if people are more knowledgeable about their rights about the consumer products, they can expect the companies to make high quality products.

X. CONCLUSION

1. Thus, it has been concluded that usage rate of shampoo among the select individuals has been high andtheirbuying behaviour isalso very frequent.
 - 1) It has been seen that most of the people are aware of cosmetics shampoos rather than herbal and medicated ones. Price, availability, and Packaging of the product also plays an important role in buying the shampoo products. Advertisement has especially important role in consumers buying behaviour and in switching behaviour. It has been found that most of the consumers preferred quality, innovative products over gifts, extra quantity, discount, price off while making decision for buying the shampoos.
 - 2) A clear shift for chemical shampoos to organic shampoos is seen in this survey and the consumers these days are quite particular about the ingredients in their shampoos, brands and importantly the quality of the shampoo. Interestingly they are prepared to spend more on a quality product which can removes problems of hair.
 - 3) Also, it has been seen that various factors influence the switching behaviour of the consumers like impact of packaging, price rise of current brand, scheme of brands, impact of

advertisement, non-availability of brand, to try new option and influence by others etc.

- 4) Interestingly a vast percentage of respondents have replied that they do not have any information about consumers' right about the product used by them.

XI. LIMITATIONS OF THIS STUDY:

The researcher took all possible care to avoid shortcomings and errors in the collection of data. All possible care and skills were exercised to derive the conclusions and bring out the findings of the study. Despite all the efforts taken by the researcher in this regard, the present study is subject to the under mentioned limitations.

1. Due to the limitations of time, the study was restricted to 150 consumers spread over different age ranges for residents of Singapore.
2. Also, the age range was restricted to 15-45 year to get the information and trend analysis for a younger population range.
3. There may be a chance of receiving biased information from the consumer while getting the data through questionnaire method.
4. This project report is limited to the respondents selected and may not give a general opinion or details about the complete population at large.
5. As the sample size is small, it may not be extended to the complete demography of Singapore.
6. All the respondents belonged to urban areas and hence the result may not be extended to rural population.

BIBLIOGRAPHY:

- [1]. Aslan, Fatima & Bas, Beyza. (2016). Marketing Research - An Examination of Female Consumer Preferences for Shampoo Brands in the United Arab Emirates. 10.2323/01.2323.
- [2]. Ankita Shrivastava, Consumers' buying and switching behavior – A study on shampoo brands Abhinav International Monthly Refereed Journal of Research in Management & Technology, Volume 3, Issue 3 (March, 2014)
- [3]. J. Bellare, R. Iyer, A.R. Mainkar, C.I. Jolly. A study on the conditioning effects of natural shampoos using the scanning electron microscope, 21 December 2001 <https://doi.org/10.1046/j.1467-2494.2001.00056.x>
- [4]. D. F. Ogeleka, L. I. Ezemonye and F. E. Okieimen, "The Toxicity of a Synthetic Industrial Detergent and a Corrosion Inhibitor to Brackish Water Fish (*Tilapia guineensis*)", Turk J. Biol., 35, 161–166 (2011).
- [5]. Global Healing Centre, (1998), "The Benefits of Organic Laundry Detergent", Accessed on 28th Aug 2012, <http://www.globalhealingcenter.com/miscellaneoushealth-and-wellness/organic-laundry-detergent>.
- [6]. Herman-Josef "Consumer protection and risk assessment: sensitising substances in consumer products" Allergo J Int (2019) 28:167–182
- [7]. Hischmann,, <https://www.statista.com/statistics/1099392/singapore-leading-hair-concerns-of-women-between-35-to-44-years>, 2019
- [8]. Kathuria, Lalit & Jit, Bhupinder. (2010). An Empirical Study on Brand Awareness and the Factors Influencing Brand Loyalty Towards Hair Shampoos.
- [9]. Khaloud AlBadi Shah A. Khan Formulation, evaluation and comparison of the herbal shampoo with the commercial shampoos Department of Pharmacy, Oman Medical College, Muscat, Oman, "Science Direct" Available online 10 December 2014.
- [10]. Mainkar, A.R. & Jolly, C.I.. (2001). Formulation of natural shampoos P. International journal of cosmetic science. 23. 59-62. 10.1046/j.1467-2494.2001.00057.x.
- [11]. Maria Fernanda Reis Gavazzoni Dias, Hair Cosmetics: An Overview, Int J Trichology. 2015 Jan-Mar; 7(1): 2–15.
- [12]. Paschal d souza, Sanjay K Rathi, Shampoo and Conditioners: What a Dermatologist Should Know? Indian J Dermatol. 2015 May-Jun; 60(3): 248–254.
- [13]. Times of India "Company to pay for shampoo that damaged human hair" July 14, 2014
- [14]. Umar, Sanushi & Noreen, Sana. (2020). A Close Look at Aloe Vera Barbadosensis and Its Effect on Hair Health.