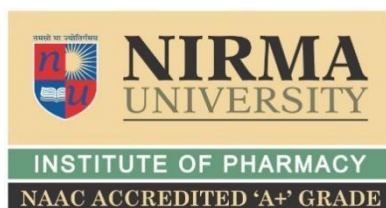


BACHELOR OF PHARMACY

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2024

**DERMATOLOGICAL DISORDER DISCOVERY:
UNVEILING SKIN CONDITIONS THROUGH
SURVEY ON HERBAL MARKETED
FORMULATION**



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BACHELOR OF PHARMACY

UNDER THE GUIDANCE OF

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**INSTITUTE OF PHARMACY
NIRMA UNIVERSITY**

MAY 2024

**DERMATOLOGICAL DISORDER DISCOVERY:
UNVEILING SKIN CONDITIONS THROUGH
SURVEY ON HERBAL MARKETED
FORMULATION**

A Thesis submitted to the Institute of Pharmacy, Nirma University, in partial
fulfillment of the requirements for the Degree of

BACHELOR OF PHARMACY

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MAY 2024

DECLARATION

We, **BHAKHAR DIKSHA (20BPH029)**, **PATEL DWIJ (20BPH032)**, **PATEL HET (20BPH040)**, **PATEL HETA (20BPH041)**, hereby declare that B.Pharm project work (BP812PW) entitled “**DERMATOLOGICAL DISORDER DISCOVERY: UNVEILING SKIN CONDITIONS THROUGH SURVEY ON HERBAL MARKETED FORMULATION**” being submitted to Institute of Pharmacy, Nirma University for the award degree of B.Pharm was carried by us under the supervision of **Dr. Udit Chaube**, Institute of Pharmacy, Nirma University. The content of this project work, in full or in parts, have not been submitted to any other University for the award of any degree. We also declare that all the information was collected from various primary sources (journals, patents, etc.) has been duly acknowledged in this project report.

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This is to undertake that the B.Pharm Project work (BP812PW) entitled **“DERMATOLOGICAL DISORDER DISCOVERY: UNEVILING SKIN CONDITIONS THROUGH SURVEY ON HERBAL MARKETING FORMULATION”** Submitted by **BHAKHAR DIKSHA (20BPH029), PATEL DWIJ (20BPH032), PATEL HET (20BPH040), PATEL HETA (20BPH041)**, B.Pharm. Semester VIII is a bonafide research work carried out by us at the Institute of Pharmacy, Nirma University under the guidance of Dr. Udit Chaube. We are aware about the rules and regulations of Plagiarism policy of Nirma University, Ahmedabad.

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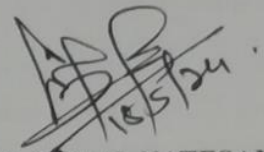
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LIST OF ABBREVIATIONS

USFDA:	United States Food and Drug Administration
SWOC:	Strength, Weaknesses, Opportunity, Challenges
CAGR:	Compound Annual Growth Rate
NDA:	New Drug Application
VLPL:	VELLVETTE Lifestyle Private Limited
OTC:	Over the Counter

ABSTRACT

Background: Early dermatological disorders have an impact on how a patient develops their sense of self, which can have an impact on how young people view themselves and interact with others. Motivated by the popular use of herbal remedies for skin conditions, this study aims to bridge the information gap between consumer demand and empirical backing. The fact that these products are used so extensively highlights the need for a comprehensive, evidence-based process to assess their effectiveness and ensure dermatological requirements are fulfilled.

Objective: To assess the business using SWOC analysis. To become familiar with the company's marketing plan. To be familiar with the company's marketing mix. Identify skin conditions. Method based on surveys. Acknowledge customer experiences with natural remedies for skin conditions.

Participants: 204 Out of 193 adult participants (18-30 years) took part in the study (n=98 participant were identified with acne; n=59 participant were identified with dry skin; remaining n=47 participants were identified with dark circles).

Measurements: This study uses the 5P model and SWOC analysis to determine how much demand there is for conventionally packaged herbal drinks while making purchases. Product, pricing, tangible evidence, and promotion make up the four points of the 5P model. To determine the potential of herbal medicine using an analysis and 5Ps.

Methodology: The secondary data used in this qualitative research paper was gathered from research papers that were published in a variety of journals, books, newspapers, articles, yearly reports from the firm, and publications that were specifically linked to this study.

Conclusion: The study conducted on herbal formulations that are advertised has clearly shown that, although these medicines are extensively used because of their perceived natural advantages and few adverse effects, their real efficacy differs. Medicinal herbs as potential source of therapeutics aids has attained a significant role in health system all over the world for both humans and animals not only in the diseased condition but also as potential material for maintaining proper health.

Expected Outcome: Relationships between skin diseases and herbal components. Identifying common skin conditions. The efficacy of herbal remedies. Common herbal components. Customer preferences. Awareness and knowledge. Suggestions for enhancing the product. The safety report for herbal products.

Key words: SWOC Analysis, 5P Method, Herbal formulation, Marketing strategy.

CHAPTER 1: INTRODUCTION

1.1 OVERVIEW

At the present rate of increase, the world's population is expected to reach 7.5 billion by 2020. 80% of the population in developing or underdeveloped nations still uses a traditional medical system based on herbal remedies, which accounts for the majority of this rise (Ramawat, K. G. and Merillon 63). Herbal drugs have been used since ancient times as medicines for the treatment of a range of diseases. Medicinal plants have played a key role in world health. Given the significant advancements in modern medicine over the past few decades, plants continue to play a significant role in healthcare. Although they are found all throughout the world, tropical nations have the highest concentration of medicinal plants. The last ten years have seen a noticeable rise in interest in medications made from higher plants, particularly phototherapeutic ones. Approximately 25% of contemporary medications are thought to be derived, either directly or indirectly, from higher plants (Calixto and J. B. 189). The human skin is the body's outermost layer. The biggest sense organ in humans is their skin. Subcutaneous fat comprises 16–18% of the total body mass, while adult skin mass makes up approximately 5% of it. It is the biggest organ in the integumentary system of humans. In adults, its surface area ranges from 1.5 to 2 m² is quite similar to pig skin and similar to the skin of most mammals. Skin comes in two varieties: hairy and globous (hairless). Hair follicles make up the majority of human skin, which might appear hairless due to skin's interaction with the environment (Harry, Ralph Gordon and Rieger 23). The body's first line of defence against infections, potentially harmful substances, and excessive water loss is the skin. Populations vary in the colouring of their skin, and skin types might be dry or oily (Iizaka and Shinji 126).

1.2 STRUCTURE OF SKIN

The skin serves as a partition separating the internal and external environments. Its textures and thicknesses vary. For example, the skin beneath the eyelids is as thin as paper, while it is thicker on the palm and soles of the feet. The skin serves as the body's first line of defense against viruses, UV rays, toxins, and mechanical injury, among other functions. It also maintains a steady body temperature and prevents the body from losing fluids. The skin is composed of mainly three layers, each of which has a distinct purpose.

1. Epidermis
2. Dermis
3. Hypodermis

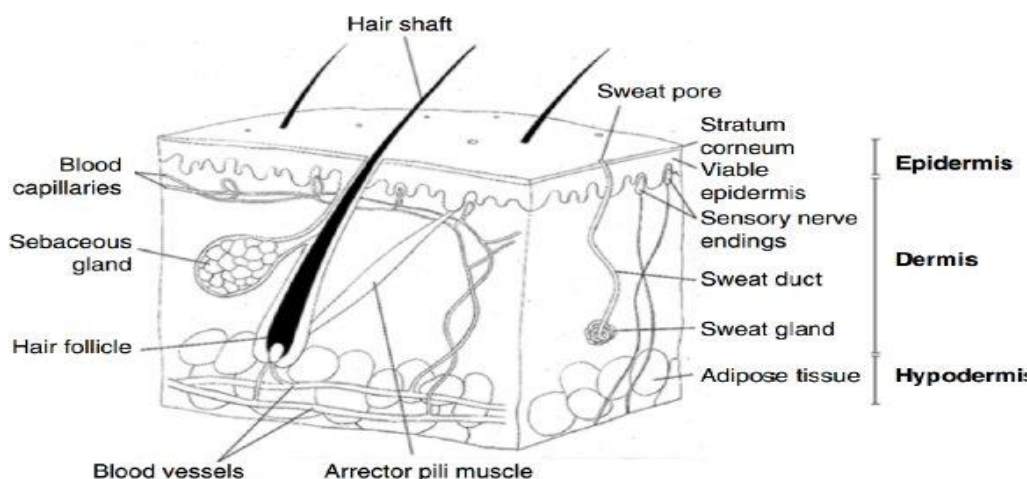


Fig 1.1 A diagrammatic representation of the structure of human skin in cross section (Ng, Keng Wooi and Lau 11).

1.3 FUNCTION OF SKIN

The primary function of the skin is to separate the internal physiological environment of the body from the external non-physiological environment (Calixto and J. B. 189). The physical barrier is provided primarily by the stratum corneum, that is to say, traversing the stratum corneum is usually the rate-limiting step in substance exchange between the body and the environment via the skin (Ng, Keng Wooi and Lau 11). The skin is also an immune-competent organ. A range of immune cells including Langerhans cells, dermal dendritic cells and macrophages are found in the skin (Zaba, Lisa C and Krueger 308). Furthermore, the skin carries out important metabolic functions.

- Storage
- Sensation
- Water and Electrolyte Balance
- Chemical Defence
- Regulation of Temperature
- Sensory Perception
- Bacterial damage

- Waste excretion
- Vitamin D formation
- Lysozyme-which breaks down bacterial cell walls are all produced during perspiration (Hani Yousef, Mandy Alhajj and Sandeep Sharma. 16).

1.4 TYPES OF SKIN

Knowing your skin type can help you select the appropriate products and treatments to properly meet the specific needs of your skin type. Always alter your skincare program based on how your skin may change with the seasons, age, health, and other factors.

1.4.1 FDA SKIN CLASSIFICATION

- How can I determine my skin type?

Table 1.1 Different types of skin (U.S. FDA & DRUG 10).

Skin Type	Skin Colour	Reaction to Sun Exposure
I	Pale white	Always burns - never tans
II	White to light beige	Burns easily - tans minimally
III	Beige	Burns moderately – tans gradually to light brown
IV	Light brown	Burns minimally - tans well to moderately brown
V	Moderate brown	Rarely burns - tans profusely to dark brown
VI	Dark brown or black	Never burns – tans profusely

1.4.2 SKIN TYPES BASED ON HYDRATION STATE AND LIPID CONTENT

- How to feel your skin? (Examine and Feel Your Skin)
 - Skin Self-Assessment: A Guide to Examining Your Complexion

- Normal skin: Normal skin types stay away from the extremes of oiliness or dryness. Its silky texture, tiny pores, healthy blood flow, and well-balanced structure and function make it a favorite among cosmetologists. It depicts a person with healthy skin who has:
 - Proper hydration
 - Smooth look with few flaws or defects
 - Smooth feel
 - Radiant glow
- Dry skin: is a frequent ailment brought on by excessive water loss or insufficient oil production in the skin. Your skin may feel flaky, dry, and rough as a result of this. It can potentially break and bleed in extreme circumstances.
 - There are many things that can cause dry skin, including:
 - Cold, dry weather
 - Hot showers or baths
 - Harsh soaps and detergents
 - Certain medical conditions
 - Medications
- Oily skin: Features increased pores as a result of the sebaceous glands excessive activity, making it extremely glossy. The forehead, nose, and chin are the areas that show the highest oiliness, and they also feel oily to the touch. Puberty is typically the onset of oily skin, which affects a significant portion of young people (U.S. FDA & DRUG 10). Sebum an oily, waxy substance that hydrates and protects your skin, is produced in excess by your sebaceous glands, which results in oily skin. Although sebum is beneficial, too much of it can cause:
 - Glossy complexion: Especially in the T-zone (forehead, nose, and chin), oily skin frequently has a greasy or glossy appearance.
 - Pore enlargement: Sebum can block pores, giving the appearance of larger pores.
 - Breakouts: Excess oil and clogged pores can cause breakouts of acne.
- Sensitive skin: Reactivity is the key to sensitive skin. This intricate skin ailment is characterized by atypical sensory manifestations, such as

tingling, chafing, burning, or pickling, and potentially discomfort or urticarial caused by different chemicals (like cosmetics, soaps, and water pollution), physical elements (like UV light, heat, cold, and wind), microbes, psychological elements (like stress), and hormones (like menstrual cycles) (Huang, Yau-Li and Chang 170).

- Irritation
- Discomfort
- Inflammation
- Combination skin; It is the combination of normal and oily skin, or oily and dry skin, as the name suggests. In the forehead's middle T-zone, this type of skin is prone to oiliness. The other parts (hairline and cheeks) have normal or dry (Harry, Ralph Gordon and Rieger 16).

1.5 HOW TO BUILD A DAILY SKIN CARE ROUTINE

A daily skin care routine has four basic steps you can do once in the morning and once before you sleep.

Cleaning:

- Choose a cleanser that doesn't leave your skin feeling tight after washing.
- Wash your face once a day rather than twice if you have dry skin and don't apply makeup.
- Use lukewarm water on your skin instead of boiling water.
- Don't wash your skin just because it seems clean; this means that the natural oils have been stripped off.

Handle (Optional):

- You can take care of certain problems like wrinkles, dark circles, or acne at this stage.
- Common treatment products include serums, essences, and spot treatments.
- Use your chosen treatment product in a thin layer after cleansing but before moisturizing.
- Not everyone needs a separate treatment step, especially if their goals for skincare are simple.

Serums:

- In the morning, under sunscreen, a serum containing growth factors, peptides, or vitamin C would be preferable. Retinol or prescription retinoid is more effective at night.

Moisturizer:

- Moisturizer is necessary for all skin types, even oily skin, as it helps to keep moisture in and keep your skin supple.
- Choose a moisturizer designed specifically for your skin type, such as combination, oily, dry, etc.
- Moisturize your face and neck after cleansing your face and using any treatment products.

Sunscreen (Daytime only):

- In any skincare regimen, this may be the most important stage. Wrinkles, black patches, and even skin cancer are frequently brought on by sun exposure.
- Use a broad-spectrum sunscreen with SPF 30 or greater every day, even on cloudy days.
- Slather your face and neck with a thick layer of sunscreen, and reapply it every two hours, or more frequently if you swim or perspire.

1.6 HOW TO TREAT SKIN PROBLEMS

It is possible to address skin issues without endangering your skin. Just keep in mind the most important skin care tip: Don't pick!

Picking at blackheads, scabs, acne, or other skin conditions can result in hyperpigmentation, or darker skin areas, or open wounds. Scars, increased acne, or infections can result from open wounds. Skin scarring is more prone to occur in deeper wounds (Harry, Ralph Gordon and Rieger 45).

1.7 SKIN RELATED ISSUES

Being the body's outermost layer of defence, our skin is susceptible to a variety of problems. We will now discuss some of the most common skin-related problems that today's youth encounter. This is mentioned beneath the data list: 1) Pimples 2) Dark circles; and 3) Skin that is dry.

1.7.1 OVERVIEW OF ACNE

Acne:

One prevalent skin issue that arises from clogged pores is acne. These blockages cause many types of pimples, including blackheads and whiteheads, to appear. Pimples that are uncomfortable, pus-filled, and inflammatory develop on the skin.

Acne vulgaris is the medical term for the condition (Zaenglein, Andrea L. and Pathy 956).

Forms of Acne:

Acne can take many different forms:

- Fungal acne
- Cystic acne
- Hormonal acne
- Nodular acne

Acne can damage your self-esteem and cause permanent scars, especially if it is cystic or nodular. For the greatest course of therapy, consult a physician as soon as possible (<https://my.clevelandclinic.org/health/diseases/12233-acne> 1).

Who is susceptible to acne?

Acne is a common skin disorder that often starts during adolescence but can also affect adults due to hormonal changes. It is more prevalent in adult females and those assigned to the female gender at birth. Acne susceptibility may be inherited or inherited from family members (Thiboutot, Diane M. and Dréno s24).

Acne prevalence:

Recognize that you are not the only one who struggles with acne. The most prevalent skin condition worldwide, acne affects about 80% of individuals between the ages of 11 and 30 to some degree (Zaenglein, Andrea L. and Pathy 23).

Symptoms and Causes:

The signs of acne on the skin can take many different forms.

- Pustules, or pimples
- Papules
- Blackheads
- Whiteheads

- Nodules
- Cysts

Acne appearance:

The following items have the ability to clog pores: Sebum: An oleaginous material that coats the skin.

- Bacteria: Ordinary skin bacteria often proliferate and clog pores.
- Dead skin cells: Exposed skin cells might overpopulate hair follicles.

Because chemicals block the follicles, clogged pores lead to the creation of pimples. This procedure sets off an inflammatory response that results in discomfort, swelling, and an obvious red patch around the afflicted location.

Triggers for acne:

A variety of external elements, such as tight clothes and headgear like caps or sports helmets, can either cause acne or exacerbate breakouts.

- Being subjected to specific meteorological conditions, such as high humidity and air pollution.
- Using oily or greasy personal care products, including thick creams or lotions, or working in environments where grease is constantly in contact, like eateries that are covered in frying oil.
- Stress, which can cause cortisol levels to rise.
- Side effects from particular medications.
- Grasping at acne.

A number of foods, including whey protein, skim milk, and high-sugar diets, have been connected in some studies to acne. However, there is currently no proof that eating chocolate has a direct causal relationship (Thiboutot, Diane M. and Dréno S23).

To lower your risk of acne, choose a well-balanced diet rich in fruits and vegetables, particularly those strong in vitamin C and beta-carotene, which are thought to have anti-inflammatory properties (Palmer 20).

1.7.2 OVERVIEW OF DARK CIRCLES

People of all ages might be affected by dark circles, which are a very common ailment under or around the eyes. Another name for it is a consistent, circular darkening of the skin around or under both eyes. You could appear worn out or older than you actually are if you have dark bags under your eyes (Huang, Yau-Li and Chang 170).

Classification:

It is described as a uniform, circular darkening of the skin beneath or surrounding both eyes. Dark circles are categorized as follows based on the clinical pattern of pigmentation and vascular analysis (Park, S. R. and Kim 283).

Table 1.2 Types and Appearance of Dark circles (Park, S. R. and Kim 283).

No	Types	Appearance
1	Pigmented Type (P)	As infraorbital, brown hue
2	Structural type	As structural shadows formed by facial anatomic surface contours. It can be associated with infraorbital palpebral bags, blepharoptosis, and loss of fat with bony prominence
3	Vascular type	As infraorbital, blue, pin, or purple hue with or without periorbital puffiness
4	Mixed type	Combines two or three of the above appearance

Affected Factor:

- Fatigue: Either too much or too little sleep can leave skin pallid and lifeless.
- Age: People's skin sags and thins with age, darkening the area beneath.
- Allergy: Reactions to allergens can cause dark circles.
- Medication that lowers blood pressure in the eyes: These drugs side effects
- Eye strain: Staring at a computer or TV screen for extended periods of time can lead to eye strain. This strain may cause the blood vessels around your eyes to enlarge, which can occasionally lead to dark circles (Huang, Yau-Li and Chang 170).

Causes:

- Contact dermatitis

- Fatigue
- Rubbing or scratching of the eyes
- Aging-related skin changes
- Sun exposure
- Vitamin deficiencies
- Sleep deprivation
- Dehydration (Irole, Divya Sunil and Wayal 145) (Iizaka and Shinji 12).

1.7.3 OVERVIEW OF DRY SKIN

In medicine, dry skin, also known as xeroderma or xerosis, is a very common benign skin ailment that is characterized by an excess of moisture and oil in the epidermis, the skin's topmost layer.

Dry patches and tiny, thin flakes are signs of dry skin. One of the most prevalent signs of dry skin is itching. It is a painful condition characterized by cracking, scaling, and itching.

Causes:

- Taking hot showers on a daily basis.
- Low temperatures and humidity.
- Skin disorders such as dermatitis and psoriasis.
- Continued sweating.
- Metabolic conditions, including renal disease and diabetes.
- A few allopathic medications.
- Dehydration brought on by heavy perspiration after drinking alcohol.

Symptoms and indicators:

- The skin that is impacted seems flaking and drab.
- Deep fissures that may be bleeding, red, and irritating.
- Ashy, gray skin.
- Tiny cracks or lines.
- Rough-feeling and-looking skin.

Precautions:

- Try to limit how often you shower to when you're really sweaty or dirty.

- Avoid washing your hands following each bath.
- Look for a moisturizer without alcohol.
- When you're outside, wear sunscreen to protect your skin.
- Use a mild soap solution that doesn't dry out.

1.8 RESEARCH QUESTIONS

RQ 1: To what extent do customers know about herbal and allopathic cosmeceutical products?

RQ 2: How can customer preferences become influenced by things like pricing, brand reputation, ingredients, safety, and efficacy?

RQ 3: What are the areas that require further study and knowledge gaps in order to create standardized protocols and quality assurance standards for herbal formulations used in dermatology?

RQ 4: Do different geographical areas or cultural backgrounds use herbal marketed formulations differently?

RQ 5: What variables affect customers' decision to buy herbal formulations for dermatological problems, and how do they find out about them?

1.9 RESEARCH AIM AND OBJECTIVES

1.9.1 AIM

To carry out a survey based on herbal marketed formulation used in treating skin related disorders and their market reach.

1.9.2 OBJECTIVES

- To identify and catalogue the range of herbal formulations available in the market targeted at treating dermatological conditions.
- To list the various wellness products produced by herbal pharmaceutical company and their uses.
- To evaluate the company through SWOC analysis.
- To know the marketing strategy of the company.
- To know the marketing mix of the company.

- Survey-based approach: The study may involve conducting surveys or collecting data from individuals who have used herbal products for skin-related issues.

CHAPTER 2: LITERATURE REVIEW

2.1 REGULATORY ASPECT

Cultural And Traditional Influences: The use of herbal formulations is deeply rooted in traditional practices in many cultures. Patel and Kumar (2018) document how cultural beliefs significantly influence the acceptance and persistence of herbal remedies in treating skin conditions despite mixed clinical evidence regarding their effectiveness (Geck, Matthias S. and Reyes García 159).

Theory of Planned Behaviour (TPB): Is a theory that links the beliefs and behaviour of a consumer. It assumes that intention is a determinant of behaviour. Moreover, it is argued that behavioural intention reflects how hard a person is willing to try and how motivated himself or herself to perform their behaviour (Bharathi, Mayya and Sureshramana 654).

Prevalence and Herbal Form Use: The adoption of herbal marketed formulations in dermatology has been on the rise due to increasing consumer interest in natural health remedies. Studies such as Smith and Brown (2020) report that over 60% of individuals with chronic skin conditions have tried at least one form of herbal treatment (Gruenwald and Joerg 153).

Efficacy and Perception: According to research by Lee et al. (2021), herbal products are perceived positively by users mainly for their natural ingredient profile, which is believed to offer safer alternatives to conventional medicine. However, efficacy reports vary widely, with some studies highlighting satisfactory outcomes, especially in cases of mild skin irritations and cosmetic improvements (Sharma, Alok and Shanker 12).

2.1.1 HERBAL DRUG

Many civilizations and ethnic groups have a long history of using plants and plant-derived compounds as herbal treatments. As per US FDA regulations, if herbal remedy is advertised as a cure, treatment, or preventive measure for human illness, it is considered a drug in the US and the manufacturer must submit a New Drug Application (NDA) with scientific proof proving the product's safety and effectiveness in humans.

To help academic and corporate sponsors create such medications, the US Food and Drug Administration released a set of guidelines. Most herbal products are sold as dietary supplements in the US, and they may not make any claims about curing, preventing, or treating any particular illness (Antignac, Eric and Nohynek 341).

2.1.2 ROLE OF HERBS

Compounds found in herbs offer a relaxing and soothing impact, antioxidant, antibacterial, anti-inflammatory, and balancing effect. These qualities can aid in the healing and regeneration of the skin (De Smet and Peter A.G.M. 840).

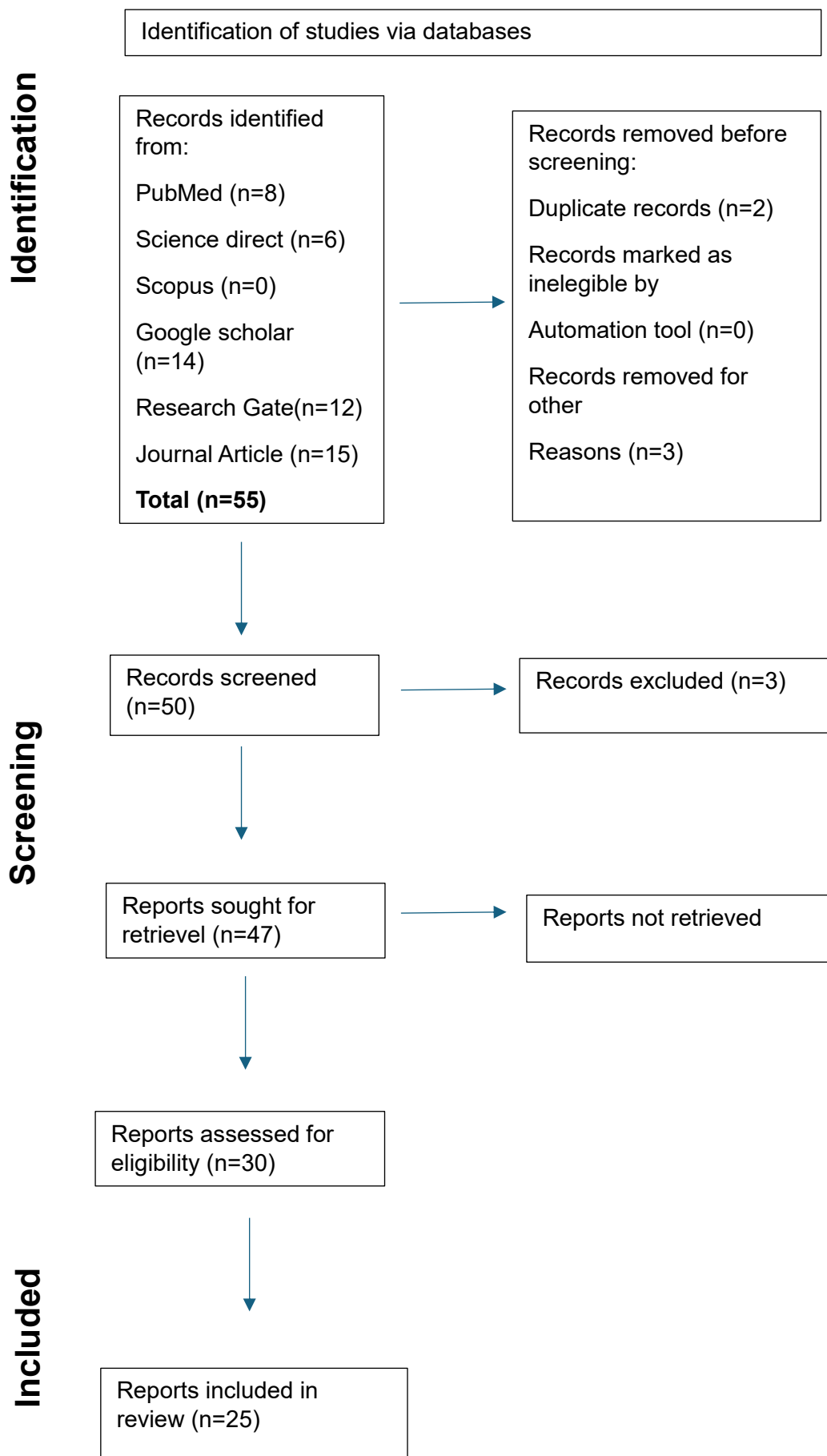


Fig 2.1 Methodology for the screening of the accurate data

2.1.3 NO SIDE EFFECTS

Manufactured restorative items could bother your skin and lead to skin breakout breakouts. They might obstruct your pores, making your skin dry or oily. These are not an issue with normal beauty care products. The normal substances used have no unfavourable impacts, and they might be utilized whenever and in any area. (Agarwal, Naman and A 20).

2.2 IMPORTANCE OF HERBAL FORMULATION IN INDIA

Many herbal medicines have been used safely and extensively for a very long time in India's officially recognized medical systems, including Ayurveda, Yoga, Unani, Siddha, Homeopathy, and Naturopathy. These systems are not obscure; rather, they have existed side by side with allopathy for a legitimate amount of time (Irole, Divya Sunil and Wayal 145).

Millions of Indians frequently utilize over-the-counter (OTC) medications as self-medication or as prescription pharmaceuticals in non-allopathic systems, as well as herbal spices, home cures, and health meals (Irole, Divya Sunil and Wayal 145) (Antignac, Eric and Nohynek 325).

2.3 OVERVIEW OF THE INDIAN COSMETICS PRODUCTS INDUSTRY

Due to the presence of numerous domestic and international players, such as L'Oréal, Himalaya, Mama Earth, BIOTIQUE, The Estée Lauder Companies, VELLVETTE Lifestyle Private Limited (Sugar Cosmetics), and Natura & Co. (The Body Shop International Limited), the Indian cosmetics market is extremely fragmented (De Smet and Peter A.G.M. 840).

The Indian cosmetics sector is a thriving and quickly expanding one, driven by a number of factors:

- **Market Quantity and Expansion:** With a robust compound annual growth rate (CAGR) expected to reach USD 18.4 billion by 2032 from an estimated USD 8.1 billion in 2023. With a growth rate above the world average, India is becoming a significant participant in the cosmetics industry (Gruenwald and Joerg 153).



Fig 2.2 Yearly Compound Growth Rate for the Indian Cosmetics Market
(Custommarketing Insight 2).

- **Product Variety:** The market offers a variety of goods to meet a range of personal hygiene requirements, including:
 - The greatest category is skincare.
 - Fragrances for Makeup
 - Oral hygiene
 - Haircare
- **Consumer Trends:** Demand is being driven by growing urban population, rising disposable income, and greater awareness of personal care.
- **Evolving Preferences:** The market is being shaped by consumers increasing desire for natural and organic goods as well as their emphasis on sustainability.

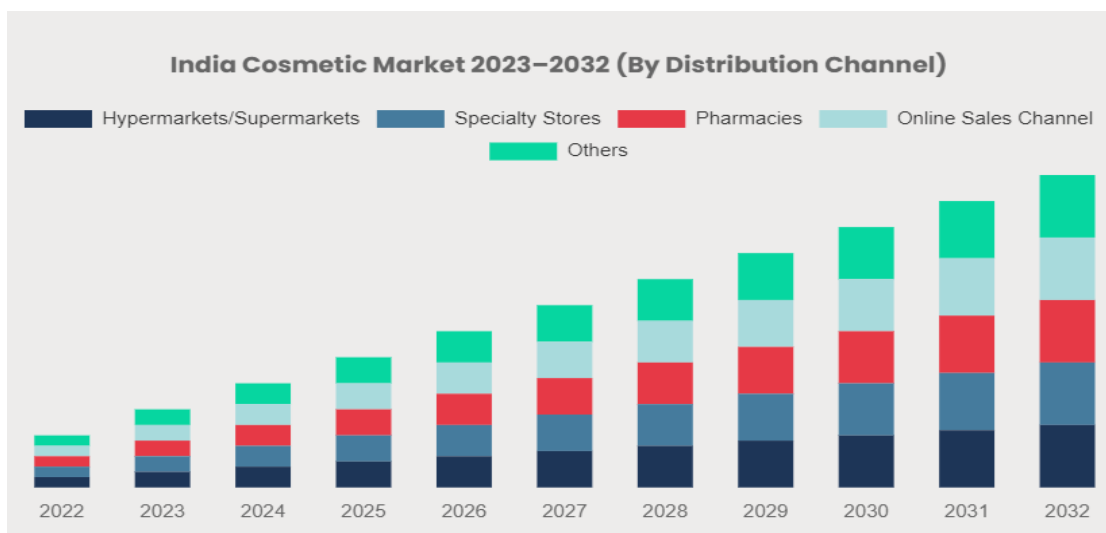


Fig 2.3 Distribution routes for the Indian cosmetics market (2022–2032)
(Custommarketing Insight 1).

2.4 ANALYSIS OF THE INDIAN COSMETICS PRODUCTS MARKET

Over the course of the forecast period, the India Cosmetics Products Market is anticipated to grow at a CAGR of 10.91%. One important component driving market expansion is rising buying power. The World Bank reports that India's consumer spending grew from USD 1.9 trillion in 2018 to USD 2.4 trillion in 2022, driving up market demand (Custommarketing Insight 6).

People are more interested in natural beauty products and worried about chemicals. This is driving a big rise in the popularity of herbal beauty products around the world (Mordor Intelligence 4) (Sheetal Verma and S.P. Singh 350) (Sharma, Alok and Shanker 12).

Advertisements and marketing initiatives on Facebook and Instagram, among other social media platforms, are how consumers find items and businesses. They take into account product reviews, recommendations from other customers, celebrity endorsements, professional blog articles, and remarks on social media before making a purchase.

Furthermore, the Indian online market for buying cosmetics items has grown rapidly in recent years due to the country's growing internet usage. Furthermore, because they desire to frequently maintain themselves to be presentable and stylish, Gen Z and millennial customers are becoming more and more demanding when it comes to luxury

cosmetics (Mordor Intelligence 2) (Ramawat, K. G. and Merillon 23) (Sheetal Verma and S.P. Singh 350).

2.5 SWOC ANALYSIS

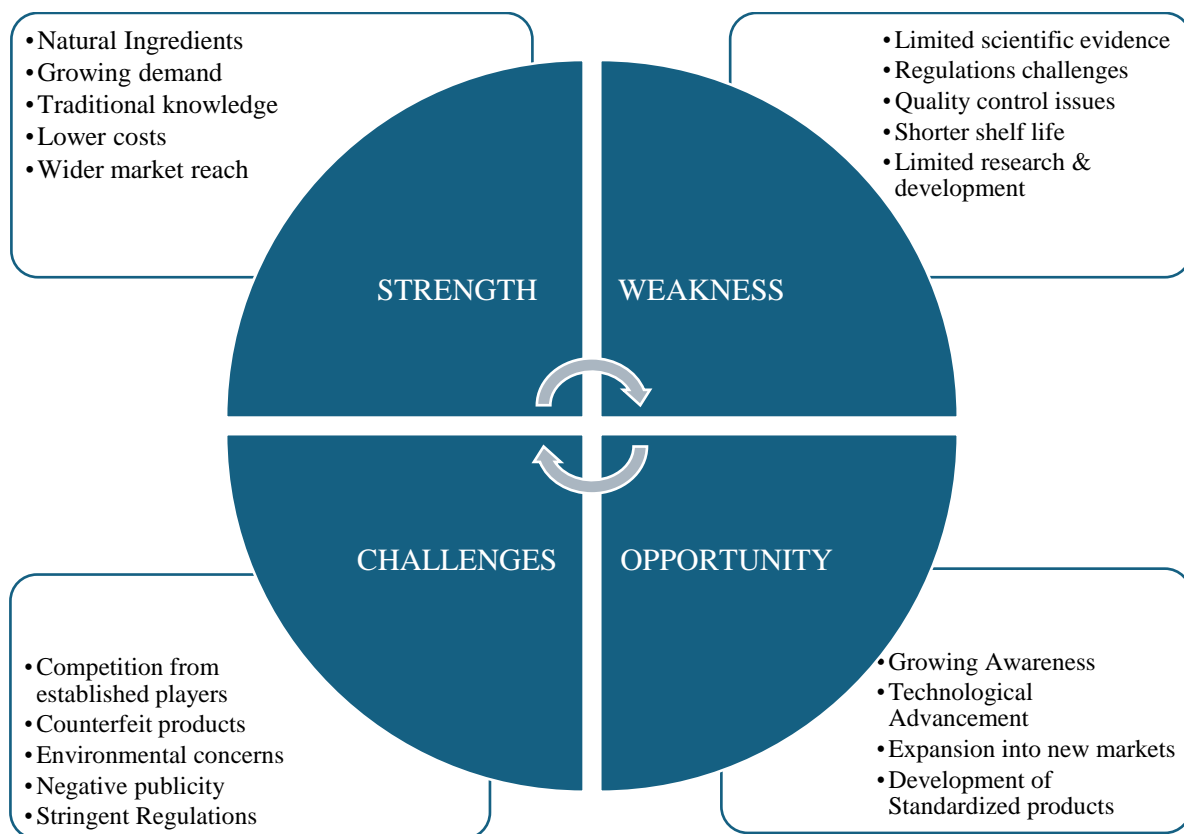


Fig 2.4 SWOC Analysis of the Herbal pharmaceutical company (Bharathi, Mayya and Sureshramana 654).

OVERALL COSMETIC PRODUCTS	ACNE	DARK CIRCLES	DRY SKIN
<ul style="list-style-type: none"> • L'Oréal SA • UNILEVER PLC • VELLVETTE • HIMALAYAS • BIOTIQUE 	<ul style="list-style-type: none"> • VELLVETTE • BIOTIQUE • HIMALAYAS • MAMA EARTH • ZYDUS 	<ul style="list-style-type: none"> • FOREST ESSENTIAL • BIOTIQUE • HIMALAYAS • LOTUS • mcaffeine 	<ul style="list-style-type: none"> • DABUR • ZYDUS • HIMALAYAS • BIOTIQUE • MINIMALIST

Fig 2.5 Top performers in the categories of general cosmetics and specific skin conditions including dry skin, acne, and dark circles (Ramawat, K. G. and Merillon 45).

2.6 WORLDWIDE HERBAL TRADE

Currently, the yearly global market for herbal medicines exceeds \$60 billion. The average annual growth rate for the sales of herbal medicines is predicted to be 6.4%, reflecting customers' preference for natural remedies (Sharma, Alok and Shanker 12).

Growing Need from Customers:

- Emphasis on Natural and Organic: Because natural and organic products are thought to be kinder and safer than synthetic medications and personal care items, consumers are gravitating towards them.
- Preventive Healthcare: Herbal treatments are viewed as a means to improve general health, and there is a rising interest in holistic wellbeing and preventive healthcare.
- Side Effects: Some customers are gravitating toward herbal choices due to worries about the possible negative effects of conventional pharmaceuticals.

CHAPTER 3: MATERIALS AND METHODOLOGY

3.1 SURVEY ON DISCLOSING SKIN CIRCUMSTANCES UTILIZING HERBAL MARKETED FORMULATION

We are into the interesting realm of herbal cosmetics and their effects on skin health in this research. We specifically concentrate on a survey that aims to identify skin problems by using commercially available herbal mixtures. Let's examine the salient features.

3.1.1 INTRODUCTION

It describes the growing inclination among consumers for herbal and natural goods due to beliefs about their efficacy and safety in comparison to synthetic substitutes. It talks about the background of herbal medicines in skin care throughout history and lays the groundwork for a thorough analysis of their current uses and acceptability in both traditional and modern contexts.

3.1.2 METHODOLOGY

This article describes the selection criteria used to evaluate customer reports, research, and regulatory papers. It also describes the methodology used to evaluate the efficacy of the herbal formulations sold for skin problems in terms of both consumer satisfaction and scientific validity.

3.1.3 EFFICACY AND SAFETY ANALYSIS

This section delves into the usefulness and safety of certain herbal mixes, including possible interactions with other drugs and adverse effects.

3.1.4 SURVEY DESIGN

Choose the kind of survey and the delivery method (phone, online). An online survey is advised for cost-effectiveness and wide distribution.

3.1.5 POPULATION AND SAMPLING

- Target Audience: People who use products for herbal skin care.
- Sampling Technique: To guarantee representation across many demographics, including age, gender, ethnicity, and geography, use stratified random sampling. Moreover, strata may form according to the kinds of skin disorders that are treated (e.g., acne, dark circles, dry skin).

3.1.6 SIGNIFICANCE

The poll sought to determine the crucial elements:

- The study supports the advantages of herbal face packs, lotions, and creams for human skin.
- Understanding the impacts of herbal cosmetics is becoming increasingly important for producers and customers alike as the demand for them develops internationally.
- The potential of herbal formulations to improve skin health organically is shown by this survey.

CHAPTER 4: RESULTS AND DISCUSSION

4.1 DEMOGRAPHIC PART OF THE MARKETED SURVEY

204 people who were not directly connected in the pharmaceutical industry or the health care department responded to this market study, which aimed to determine which herbal formulations were most frequently used to treat skin-related issues or disorders. The purpose of this study was to learn more about people's regular skin care routines and the steps they take to maintain good hygiene. These are the outcomes of the market survey that we conducted.

AGE

204 responses

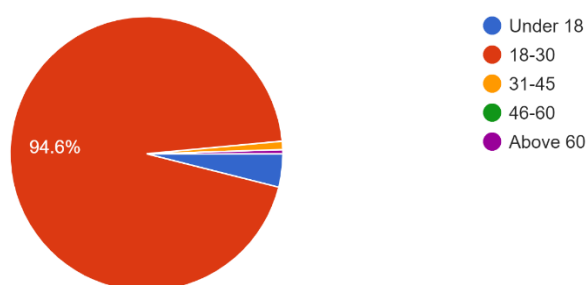


Fig 4.1 Range of age

The bulk of poll respondents (94.6%) seems to be in the 18–30 age range, with 3.9% of respondents being younger than 18. The remaining individuals (1.5%) were in the 31–45 age range, while the remaining participants (0.5%) were older than 60. The age distribution of survey respondents indicates that a younger population may be at risk for skin problems. It is very intrigued by natural skincare products.

Gender

204 responses

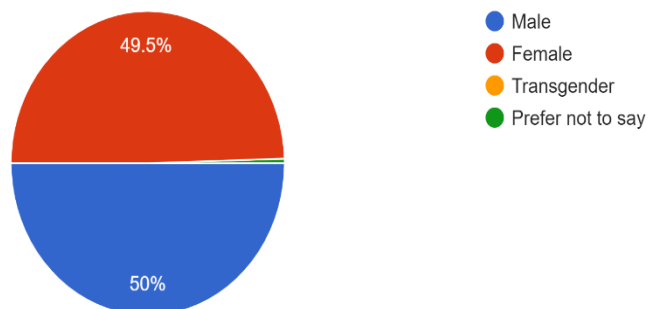


Fig 4.2 Gender distribution from the standpoint of the current study on the identification of dermatological disorders.

Pie chart representing the gender distribution among 204 responses. It highlights an almost equal division between male and female respondents. Male: Approximately 50% of the respondents.

Female: Approximately 49.50% of the respondents.

Prefer not to say: Approximately 0.5% of the respondents.

This balanced representation provides valuable insights into the gender composition within the dataset.

Occupation

204 responses

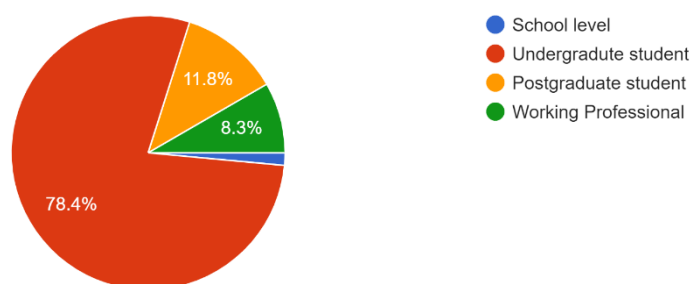


Fig 4.3 The Results of Qualifications Status

The 204 respondents varied vocations are represented in a pie chart, with undergrad students making up the majority of the sample.

Table 4.1 Qualifications status

No	Occupation	No of Responded	Conclusion of Responding Population
1	School level	17	1.5%
2	Undergraduate Students	160	78.4% (Majority responded)
3	Post-graduate Students	24	11.8%
4	Working Professional	17	8.3%

Identify your skin type

204 responses

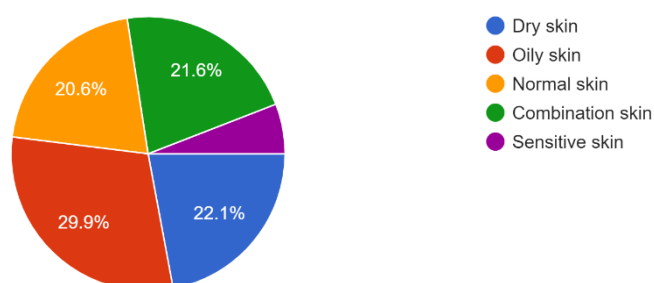


Fig 4.4 Your skin type.

This pie chart shows the distribution of skin types. Here are the key points: Important Information: It provides information that is useful for dermatological research or the creation of skincare products. The results are shown in descending order here:

- Oily: Use products devoid of oil, clean often, and maintain a percentage ratio of (29.9%).
- Dry: Stay hydrated, steer clear of harshness, and note that the percentage ratio is (22.1%).
- Combination: A percentage ratio of 21.6% and a targeted routine.
- Normal: A calm schedule with a 20.6% percentage ratio.
- Sensitive: hypoallergenic, fragrance-free, and with a 5.9% percentage ratio

What are you looking for in a skin care routine?

204 responses

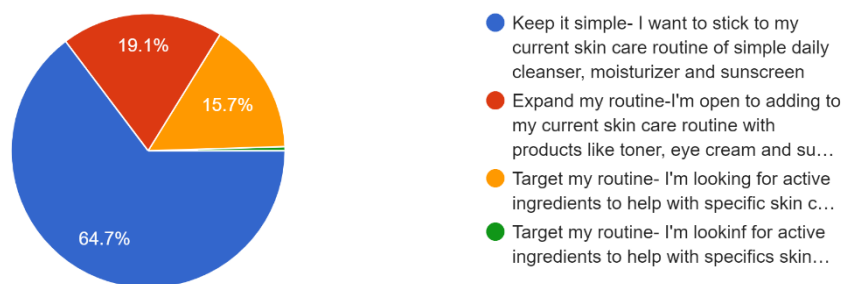


Fig 4.5 Skin care routine

The information in this pie chart pertains to what consumers want from a skin care regimen. By knowing this information, skincare products and regimens may be customized to meet the demands of the customer. The segments displayed in the pie chart are broken down as follows:

- 64.7% of consumers want to use active substances in their routine to tackle certain skin conditions.
- 19.1% of people prefer to maintain a minimal regimen consisting of just a cleanser, moisturizer, and sunscreen.
- 15.7% said they would be willing to add more items like toner, serum, and eye cream to their present routine.

What are your skin care goals?

204 responses

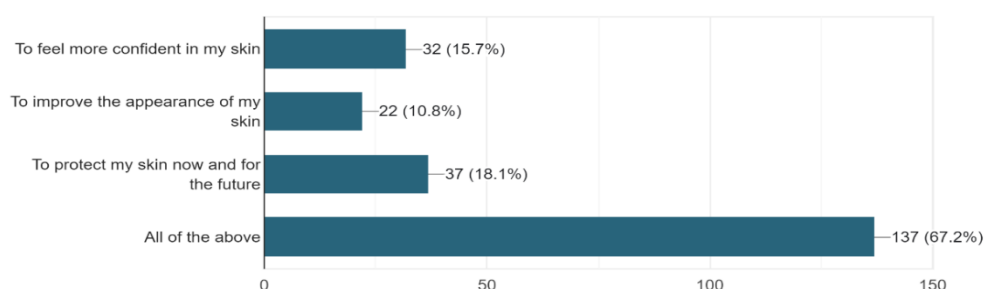


Fig 4.6 Skin care goal

Based on survey results, the bar chart displays skin care objectives. The main conclusions are as follows:

- To be more at ease with oneself: 15.7% of participants.

- To make my skin seem better: 10.8% of those surveyed.
- To safeguard my skin in the now and the future: 18.1% of participants.
- For 67.2% of those surveyed, all of the above.

Most participants place a high value on having confidence and choosing thorough skin care.

Preferably seasonal use to skincare product?

204 responses

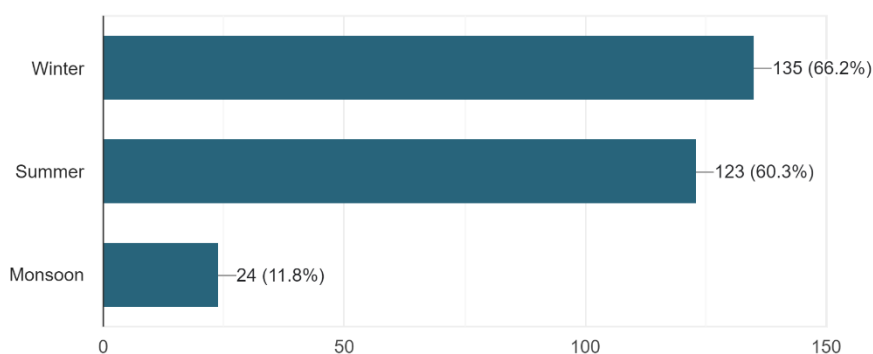


Fig 4.7 Bar graph of preferable season

This data suggests a seasonal pattern in the preferences for skincare product usage among the survey participants. Here's a breakdown:

Winter is more Preferred Season: Based on 66.2% of the replies, winter is the season that people prefer to use skincare products.

Table 4.2 Result of seasonal preference

NO	Session	No of responded	%ratio of the Responded
1	Winter	135	66.2%
2	Summer	123	60.3%
3	Monsoon	24	11.8%

Which of the following factor decides the selection of your Skin care product?
202 responses

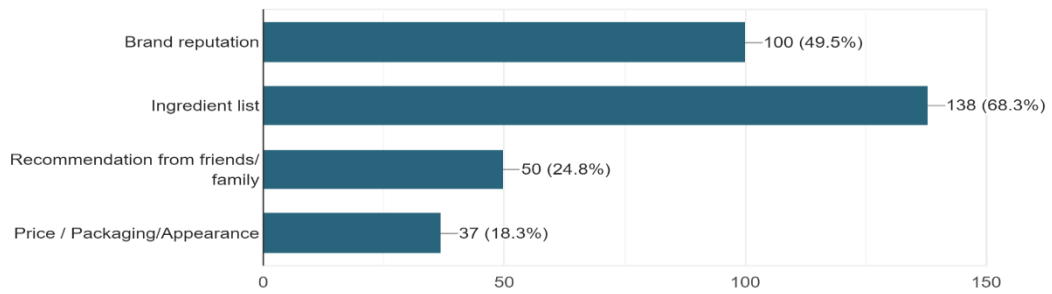


Fig 4.8 Selection of the skin care product

The survey findings pertaining to the variables influencing the choice of skin care products are displayed in a bar graph. The main conclusions are as follows:

- Ingredient List: Looking over the ingredient list is prioritized by about 68.3% of respondents.
- Brand Reputation: When choosing skincare products, about 49.5% of participants consider brand reputation.
- Family and Friends Suggestions: 24.8% of respondents depend on these sources for advice.
- Cost, Packaging, and Appearance: About 18.3% of respondents take these aspects into account.

These findings highlight how crucial it is to consider ingredient quality and brand credibility when choosing skincare products.

Have you consulted with a healthcare professional before using herbal products for skin conditions?
204 responses

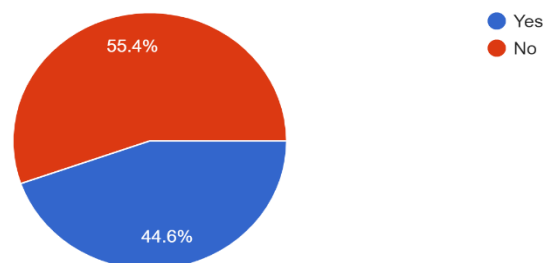


Fig 4.9 Consultation with a Healthcare Professional

Healthcare provider before using herbal remedies for skin conditions, whereas 44.6% did not. This pie chart emphasizes how important it is to see a specialist before using herbal medicines to keep your skin healthy.

Have you ever used herbal marketed formulations for skin conditions?
204 responses

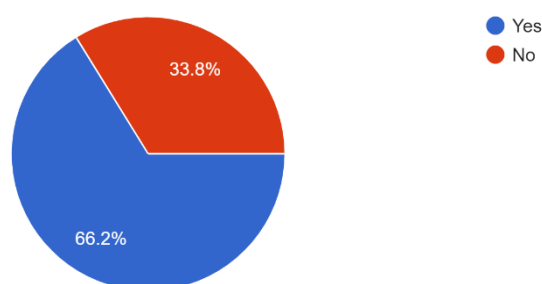


Fig 4.10 Usage of Herbal Marketed Formulation

Based on the photo, it may be inferred that 33.8% of the respondents have utilized herbal marketed formulations for skin issues, whilst 66.2% of the respondents have not. This distribution is graphically represented by the pie chart, where the bulk of the data falls into the "No" group. There were 204 answers in all.

How do you apply herbal formulation?
200 responses

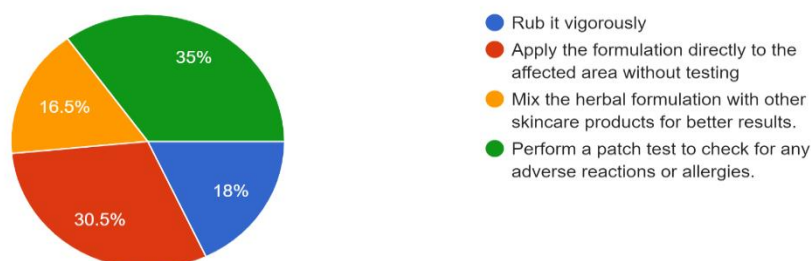


Fig 4.11 Way of applying herbal formulation

The survey findings on the application of herbal formulations are displayed in a pie chart. In order to prevent allergic reactions, the most popular method of using herbal formulations, according to the poll, is to do a patch test beforehand (30.5%). Those who apply the herbal cure straight to the afflicted region without doing any tests come next (35%). A lesser proportion of respondents stated they combine the herbal formulation

with other skincare products for allegedly greater effects (16.5%), while the least popular method was to vigorously rub the formulation on the problem region (18%), which might irritate the skin.

How would you rate the effectiveness of the herbal products you've used for skin conditions?
204 responses

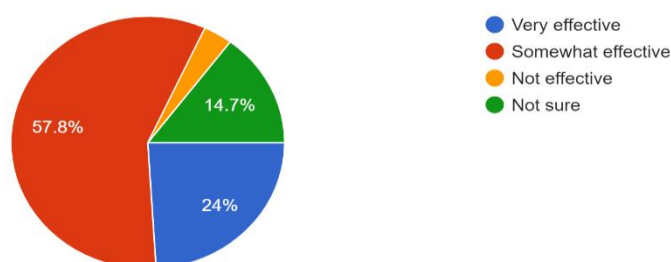


Fig 4.12 Assessment of the Efficacy of the Herbal Products

A pie chart illustrates how more than half, or 57.8%, thought their herbal products were highly helpful. 14.7% more people said they were just marginally successful. Just 3.5% of respondents claimed the herbal products were ineffective, while 24% of respondents were unsure.

What is your primary skin concern?
204 responses

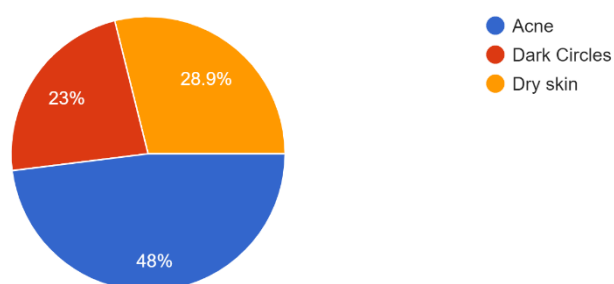


Fig 4.13 Primary skin concerns.

The pie chart indicates that 204 respondents, or the majority of the population, are concerned about dry skin, dark circles, or acne. The outcomes are broken down as follows:

- Acne: Approximately 29% of participants stated that their main skin issue was acne.

- Dark circles: About 23% of respondents said that their top worry was about dark circles.
- Dry skin: Of the respondents, 48% said that their main worry was having dry skin.

4.2 WHAT DO YOU KNOW ABOUT ACNE?

Where does acne most often show up?
99 responses

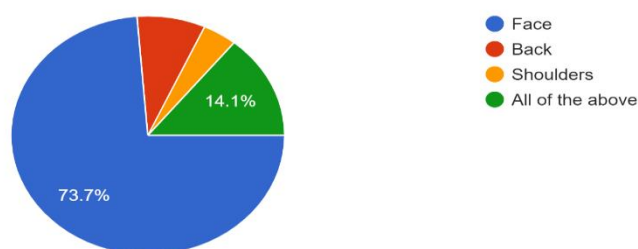


Fig 4.14 Appearance of acne

The survey findings on acne incidence are displayed in a visually appealing pie chart. This is an overview:

- Common Problem: The face is where acne most frequently develops.
- Results of the Survey: A noteworthy 73.7% of participants reported having face acne.
- Sample Size: A total of 99 people responded to the survey.

The remaining choices are broken down as follows:

Shoulders: Not specified, Back: 14.1% of all of the fore mentioned.

Do you know about herbal treatments used for acne?
98 responses

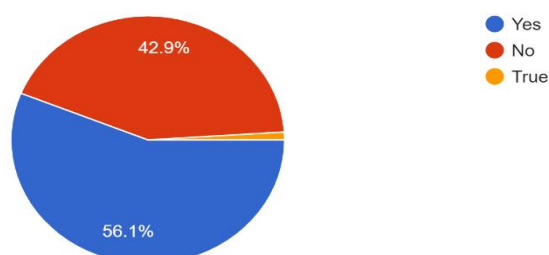


Fig 4.15 Knowledge about herbal treatment

This picture indicates that, 56.1% of respondents, think that using herbal remedies to treat acne is an effective way to cure the condition. It's crucial to remember that the poll merely inquires about respondents' awareness of the therapies—it makes no mention of whether the treatments are indeed beneficial.

Which of the following lifestyle factors can exacerbate acne the most?
98 responses

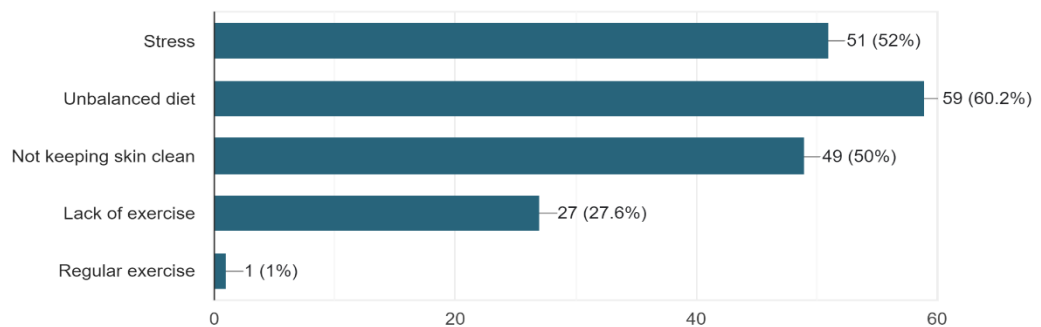


Fig 4.16 Lifestyle factors exacerbating acne the most

These are the conclusions drawn from the data visualized in a bar graph:

- Unbalanced Diet: According to study participants (60.2%), this is seen to be the most important factor that might aggravate acne.
- Acne and Lifestyle: The graph indicates that there is thought to be a significant correlation between acne severity and lifestyle decisions.
- Public Perception: This represents the general consensus on the influence of lifestyle and nutrition on skin health.
- Other possibilities were stress (51%), inadequate skin care (49%), and inactivity (27.6%).

What do your acne blemishes look like?
99 responses

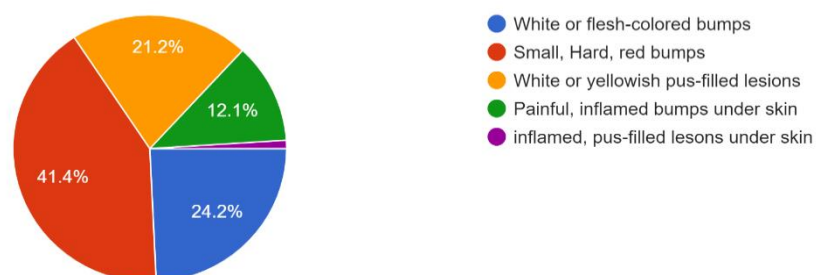


Fig 4.17 Appearance of the Acne blemishes

It is significant to remember that there are many different types of acne, and the sample size for this poll is rather tiny. With 1% of cases recorded, pus-filled, inflammatory lesions under the skin were the most prevalent form of blemish. The next most common types of skin lesions were white or yellowish pus-filled lesions (21.2%), tiny, firm, red bumps (41.4%), and flesh-colored or white bumps (24.2%).

What should be done before using any herbal formulation for acne?

98 responses

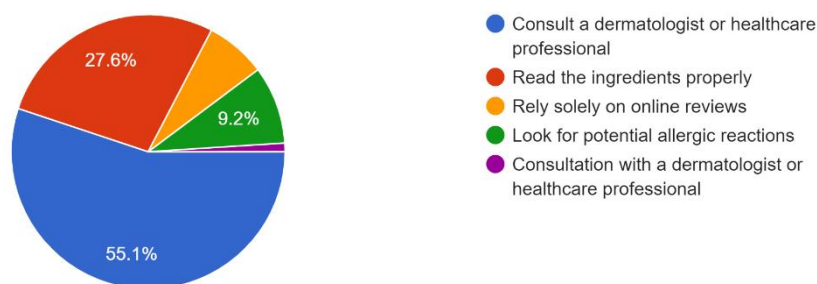


Fig 4.18 Step to be followed before to applying any herbal formulation

This image suggests that before taking any herbal formulation for acne, it is crucial to speak with a dermatologist or other healthcare provider. This is because, as the pie chart illustrates, 55.1% of respondents thought that this was the most crucial phase. The remaining survey options are broken down as follows:

- Make sure you carefully read the ingredients: 27.6%
- Depend only on reviews found online: 7.1%
- Check for any possible allergic responses: 9.2%

Which of the following herbal ingredients do you use to treat acne?

99 responses

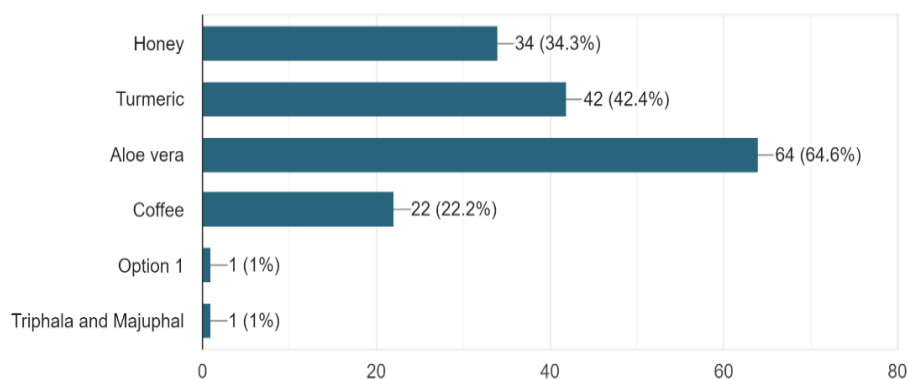


Fig 4.19 Herbal ingredients used to treat acne

Table 4.3 Herbal Ingredients used to treat acne

No	Herbal Ingredients	No of participated	% Ration of responded
1	Honey	34	34.3%
2	Turmeric	42	42.4%
3	Aloe vera	64	64.6%
4	Coffee	22	22.2%
5	Other	2	2%

Which of the following herbal marketed formulations do you use daily to treat acne?

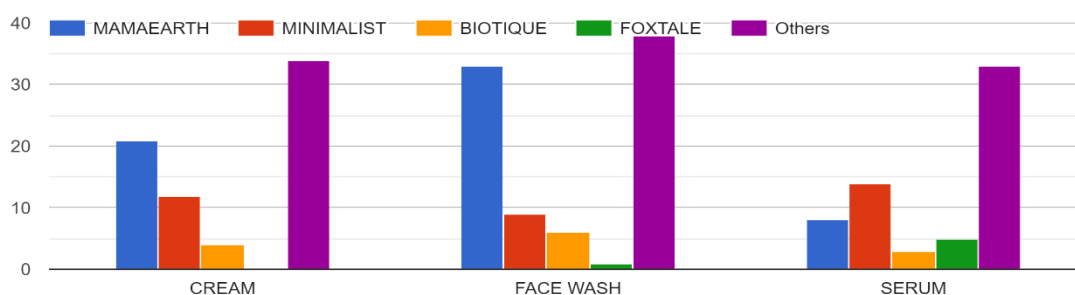


Fig 4.20 Herbal formulations regularly used to treat acne.

The presented bar graph data illustrates the popularity of several herbal formulations that are sold and used on a daily basis to treat acne, broken down by kind (CREAM, FACE WASH, and SERUM). The results shown in the graph are broken down as follows:

- Consumer Preferences: The graph offers information on what products consumers prefer to use to cure acne.
- Product Types: It offers a range of alternatives for customers by classifying the goods into CREAM, FACE WASH, and SERUM categories.
- MAMAEARTH is the most well-known brand; 32% of consumers use their acne treatment solution on a regular basis.
- The next most popular brands are MINIMALISM and BIOTIQUE, with 15% of consumers use their products on a regular basis.
- With 5% of users use their goods on a daily basis, Foxtail ranks third.
- With just 33% of respondents utilizing unlisted brands of herbal formulations on a regular basis,
- Others is the least popular choice.

Goal: When examining the graph, it's critical to take into account variables like sample size and survey participant demographics that might have an impact on the outcomes. Understanding market trends and customer behavior with relation to herbal acne remedies can be aided by this data.

4.3 WHAT DO YOU KNOW ABOUT DARK CIRCLE?

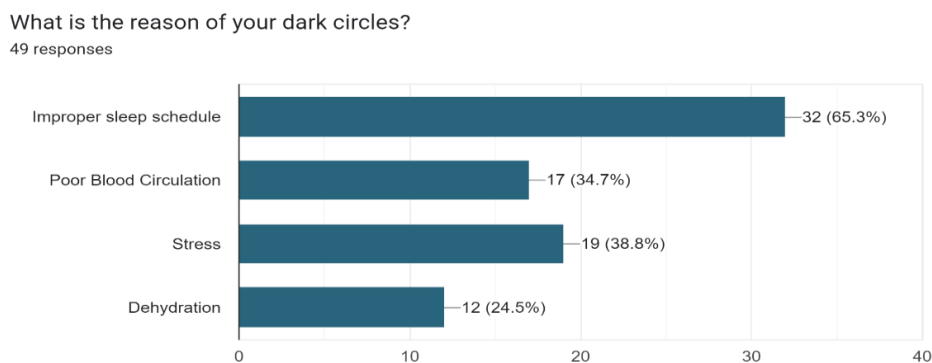


Fig 4.21 Reason of dark circles

A bar graph from the picture concept that shows the causes of dark circles according to 49 respondents' comments. The graph provides a clear visual picture of the elements contributing to dark circles by quantifying and comparing prevalent causes. This is the final analysis:

Interpretation of Data: Those wishing to remedy dark circles by recognizing and changing underlying lifestyle factors may find this information helpful.

- Inappropriate sleep regimen (65.3%).
- Inadequate blood flow (34.7%)
- Stress percentage (38.8%)
- 24.5% dehydration

Primary Cause: The most prevalent cause of dark circles is an irregular sleep schedule, which is followed by dehydration, stress, and poor blood circulation.

How much will you describe your dark circle level?
49 responses

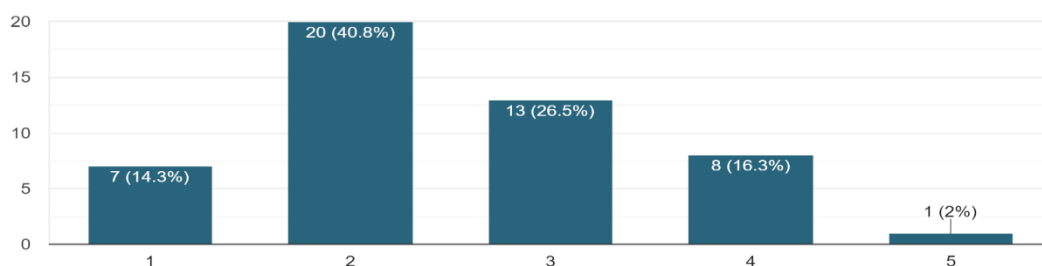


Fig 4.22 Level of dark circles

The answers of 49 respondents to the question, "How much will you describe your dark circle level?" are displayed in a bar graph on the choices showing a spectrum of dark circle levels across the responders, with numbers ranging from 1 to 5. The end of each section is as follows:

- Two percent claimed to have black circles either seldom or never.
- 20% of respondents claimed they occasionally have black rings.
- Of those surveyed, 26.5% reported having dark rings sometimes.
- Of those surveyed, 14.3% reported having dark rings often.
- Among those surveyed, 40.8% said they experience dark circles frequently or daily.

Overall, results show that a significant portion of people (77.6%) said they experience dark circles at least occasionally.

What other concerns do you have around the eye area?

49 responses

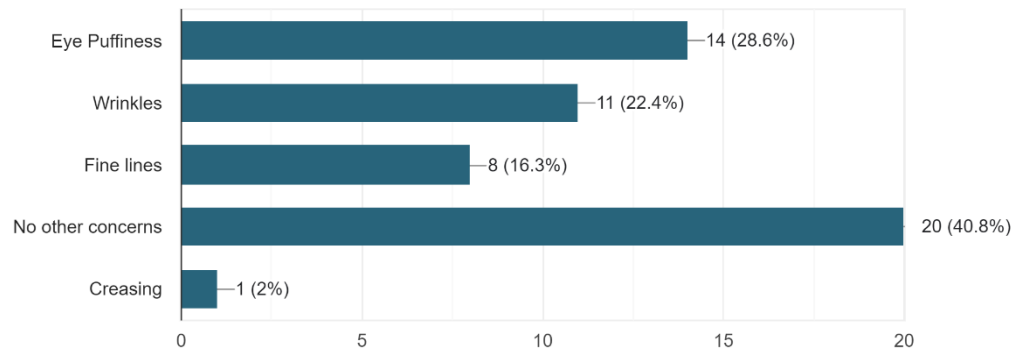


Fig 4.23 Bar graph showing the results about under-eye concerns

Table 4.4 Results about under-eye concerns

NO	Concerns do you have around the eye area	Responder to expressed to worry	No of Responded
1	Eye puffiness	28.6%	14
2	Regarding wrinkles	22.4%	11
3	Fine Lines	16.3%	6
4	No Other Concerns	40.8%	20
5	Creasing	2%	1

What type of under eye solution are you currently using to hide your dark circles?

34 responses

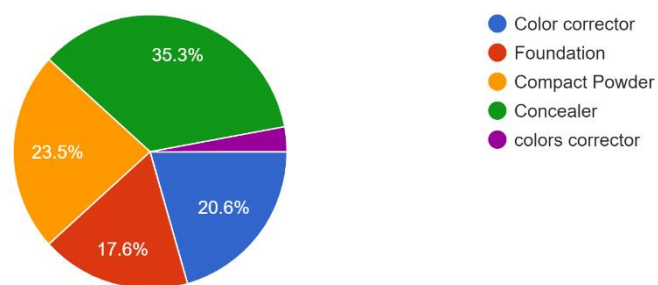


Fig 4.24 Product used to cover up dark circles

The various solutions and the proportion of users are displayed in the pie chart.

- Concealer: 35.3% of people cover up their dark circles with concealer.

- Color corrector: 20.6% of users conceal their dark circles with color corrector.
- Foundation: 17.6% of people cover up their dark circles using foundation.
- Compact powder: To cover up their dark circles, 23.5% of people use compact powder.

The pie chart indicates that concealer is the most often used under-eye remedy, with compact powder, color corrector, and foundation coming in order of preference.

Which of the following herbal marketed formulations do you use daily to treat Dark circles?

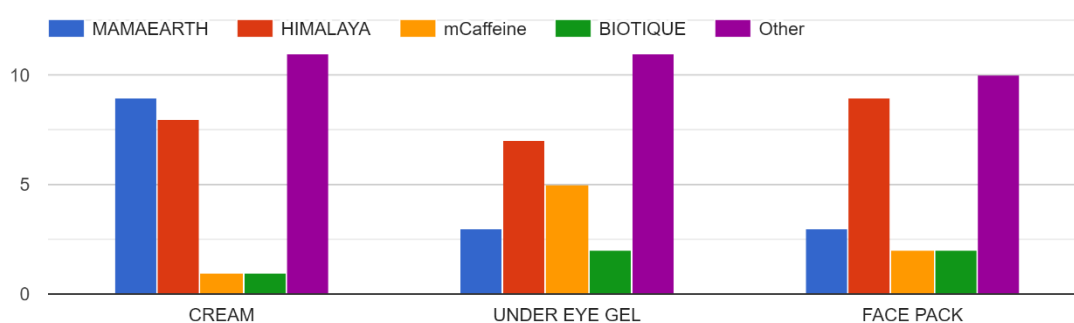


Fig 4.25 Herbal formulations regularly used to treat dark circles

A vertical bar chart, broken down by product type and brand, that shows percentages and a variety of alternatives for the herbal formulas that consumers take on a regular basis to cure dark circles. Here is a thorough examination and conclusion:

- Customer Preferences: The herbal products that are promoted and that people choose to use to cure dark circles.
- Product Types and Brands: classifies the items according to brand and category, such gels, serums, or creams, suggesting a varied market with a range of choices.
- Popularity Measures: Each bar's length indicates how many consumers like a specific brand and category of goods, giving a visual depiction of their options.
- Mamaearth: According to a poll, 40% of respondents said they use Mamaearth goods on a regular basis, making it the most popular brand.
- The brands Himalaya, mCaffeine, and Biotique are tied for second place, with 30% of respondents saying they use one of these products every day.
- Other: 10% of respondents said they often cure dark circles with herbal formulations that aren't on this list.

- Goal: Based on the graph, it appears that there is a variety of favored product categories and brands, some of which are more well-liked than others. Product development, marketing plans, and consumer education on the efficacy of various dark circle formulas might all be guided by the data presented here.

4.4 WHAT DO YOU KNOW ABOUT DRY SKIN?

Do you experience dry skin?
62 responses

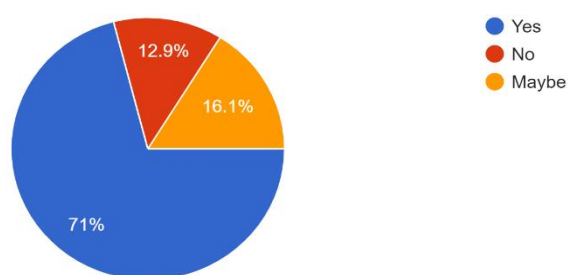


Fig 4.26 Assessment of dry skin

Table 4.5 Results of dry skin

No	Experience	No of Participate	% Ratio of participated
1	Yes	44	71%
2	No	8	12.9%
3	Maybe	10	16.1%

Which areas of your body are most affected by dry skin?
62 responses

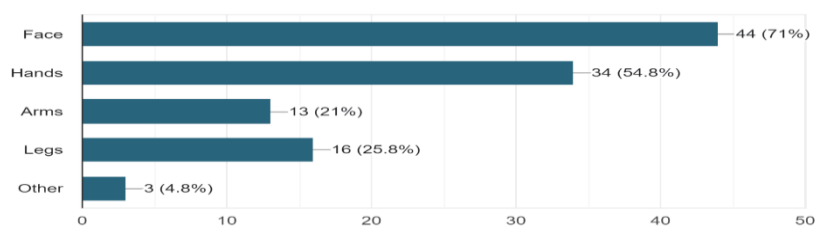


Fig 4.27 Areas of body most affected by dry skin

The graph indicates that the face is the area where dry skin complaints are most frequently made, followed by the hands, legs, and arms.

Table 4.6 Percentage Ratio of most affected area by dry skin

	Y-AXIS (the proportion of respondents that report feeling dry)			
X-AXIS (Individual Body Parts)	No	Affected part	%Ratio of Responded	No of Participated
	1	Face	71%	44
	2	Hands	54.8%	34
	3	Arms	21%	13
	4	Legs	25.8%	16
	5	Other	4.8%	3

How would you describe the severity of your dry skin?
62 responses

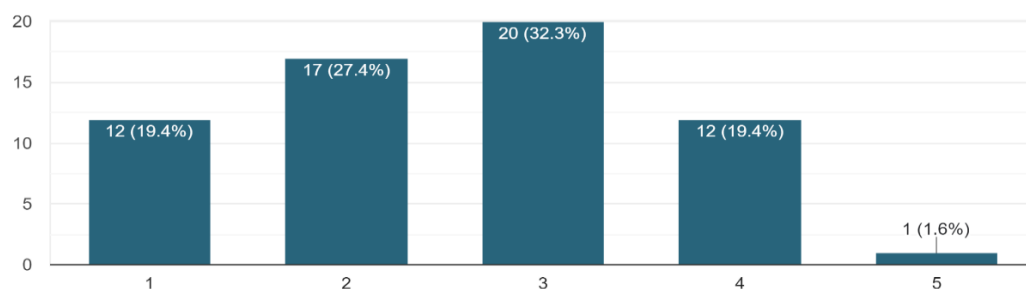


Fig 4.28 Severity level of dry skin

Table 4.7 Percentage ratio of severity level of dry skin

No	Severity Level	No of participated	% Ratio of the responded
1	High	12	19.4%
2	Moderate	17	27.4%
3	Normal	20	32.3%
4	Slightly	12	19.4%
5	Low	1	1.6%

Have you taken any medical advice or treatment for your dry skin?
62 responses

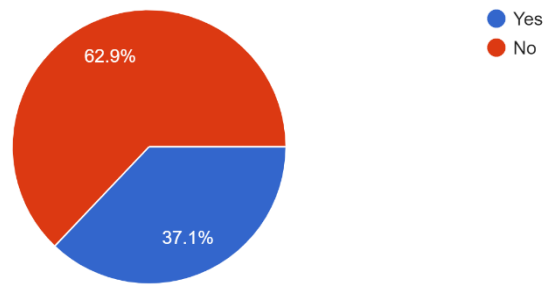


Fig 4.29 Medical advice or treatment for dry skin

Information about self-care for dry skin might help informing healthcare communications. Because they may not be aware of the condition or have access to dermatological treatment, many people may be handling their dryness on their own.

Table 4.8 Percentage ratio of people seeking medical advice or treatment for dry skin

No	Response	No of participated	% Ratio of the responded
1	YES	39	62.9%
2	NO	23	37.1%

What measures do you take to manage your dry skin?
62 responses



Fig 4.30 Management of dry skin

Here is an explanation of each part of the dry skin measurements based on a pie chart from a survey:

- Moisturizing: according to 61.3% of participants, this helps them control their dry skin. This tactic is the most widely used one.
- Water consumption: 21% of participants stated they drank a lot of water.
- Humidifiers: 9.7% of participants mentioned using one.
- 4.8% of participants mentioned modifying their diet.
- Steer clear of hot showers: 3.2% of participants mentioned staying away from hot showers.

According to the pie chart, using lotions or creams to moisturize the skin is the most often used method of treating dry skin. The next step is to refrain from taking hot baths or showers.

What type of treatment did you receive?
62 responses

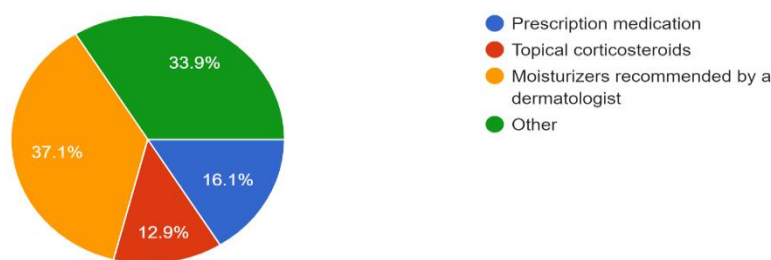


Fig 4.31 Types of treatment received for dry skin

It displays the proportion of individuals who saw a dermatologist for a certain acne therapy. Below is a summary of every segment:

- Prescription Medication: 16.1% of participants reported taking prescription drugs.
- Topical Corticosteroids: These were administered to 12.9% of participants.
- Dermatologist-recommended moisturizers: 37.1% of respondents reported using moisturizers that were suggested by a dermatologist.
- Other: 33.9% of participants had a mix of therapies or other, non-specific treatments.

This pie chart shows that the most popular dermatologist-recommended therapy for acne is moisturizers.

How satisfied are you with the effectiveness of your current dry skin management routine?
62 responses

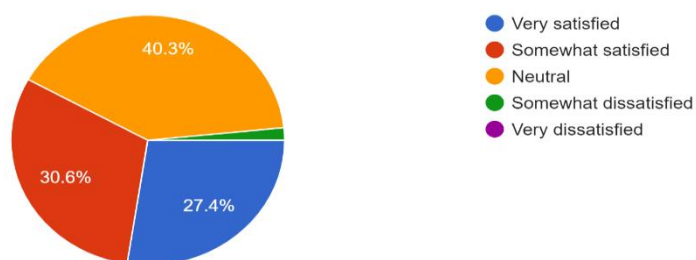


Fig 4.32 Satisfaction ratio on current dry skin care regimen

Table 4.9 Percentage ratio of Satisfaction in current dry skin care regimen

No	Satisfaction Level	No of participated	% Ratio of the Responded
1	Very Satisfied	17	27.4%
2	Somewhat satisfied	29	30.6%
3	Neutral	25	40.3%
4	Somewhat dissatisfied	1	1.6%
5	Very dissatisfied	0	0%

Would you be interested in learning more about skincare routines and products specifically tailored for dry skin?
62 responses

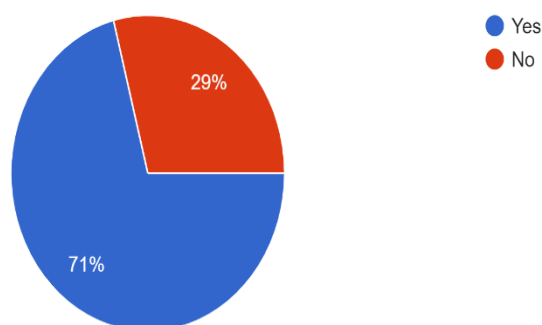


Fig 4.33 More about skincare routine and products for dry skin

Table 4.10 Percentage ratio of people interested in learning more about skincare routine and products for dry skin

No	Yours response	No of participated	% Ratio of Responded
1	Yes	18	71%
2	No	44	29%

Which of the following herbal marketed formulations do you use daily to treat Dry Skin?

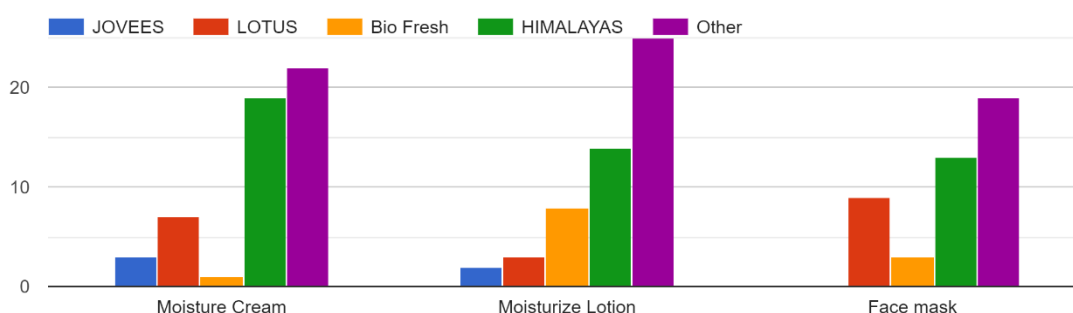


Fig 4.34 Herbal formulations regularly used to treat dry skin

The image's bar graph contrasts the use of several herbal formulations that are sold for treating dry skin, particularly face masks, moisturizers, and moisture creams. This is the conclusion drawn from the graph:

- The most well-known brand is Himalayas; 25% of consumers use its products on a regular basis to treat dry skin.
- Ten percent of consumers use one of these products every day, with Lotus and Bio Fresh equal for second position.
- Jovees is the most well-known brand; 10% of consumers treat their dry skin every day using Jovees products.
- The graph shows that 55% of respondents utilized other herbal formulations.
- The most often used product category is moisturizer, which 64.7% of respondents said they use every day.
- Twenty.6% of individuals use moisture lotion on a daily basis.

- The least common product category is face masks, which are used regularly by 14.7% of consumers.

Consumer Preferences: It comes to using herbal remedies to treat dry skin, customers clearly prefer some brands over others.

Brand Analysis: HIMALAYAS seems to be the most well-liked brand among them, with JOVEES and LOTUS following closely behind.

Product Popularity: Appears that the most popular product category is moisture creams, followed by moisturize lotions and face masks.

4.5 LITTLE FROM YOUR SIDE

What influenced your decision to use herbal products for skin conditions?

204 responses

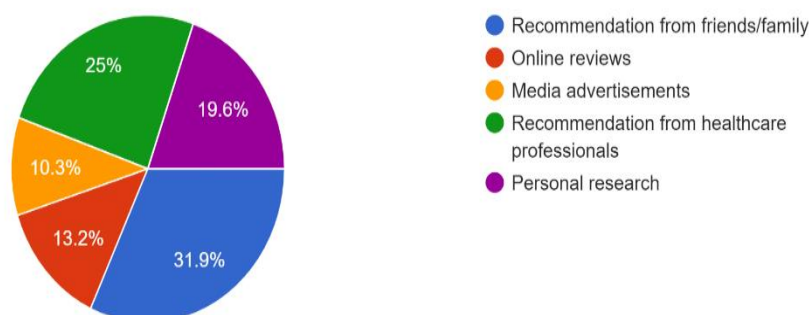


Fig 4.35 Influence to use herbal product

A pie chart demonstrates that the most frequent reason people think about utilizing herbal goods is recommendations from friends and family (31.9%).

- Supplementary factors that influence people's decision to use herbal products include reading reviews online (13.2%), hearing from medical professionals (25%), and conducting independent research (19.6%).
- The least frequent justification given by respondents (10.3%) for considering the use of herbal products is media ads.

Did you experience any side effects by using herbal products for skin conditions?
204 responses

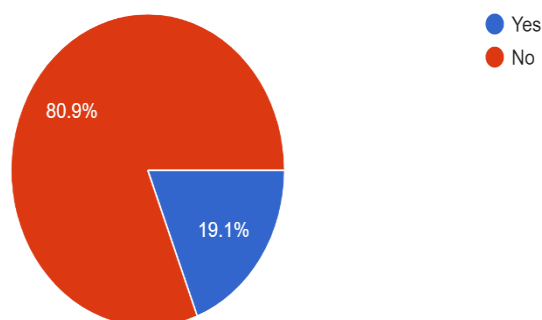


Fig 4.36 Experience any side effects

(80.9%) of those who replied said they had never had any negative consequences from utilizing herbal remedies for skin issues. Only (19.1%) of respondents reported experiencing an adverse effect.

If yes, please describe the side effects you experienced.
42 responses

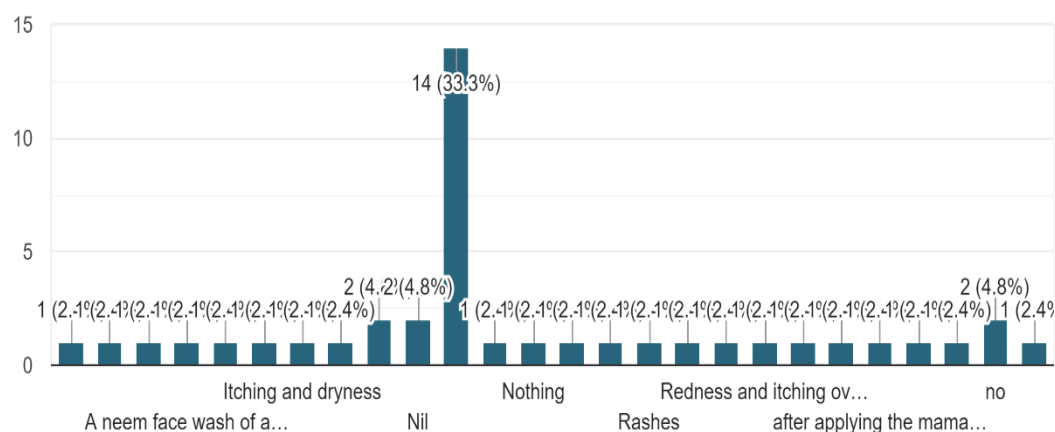


Fig 4.37 Description of side-effects

Here is some side effects are seen in the responded person that is itching and dryness, rashes, redness.

Are you currently using any prescription medications or undergoing medical treatments for skin conditions?
204 responses

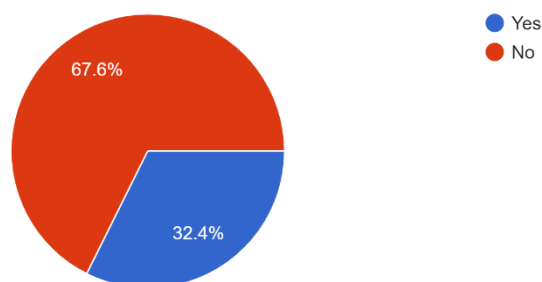


Fig 4.38 Currently prescribed medications or undergoing medical treatments

According to a pie chart, 32.4% of respondents do not take any therapy, whereas two-thirds (67.6%) of those polled use prescription drugs or therapies for skin disorders.

Would you consider using herbal products for skin conditions in the future?
204 responses

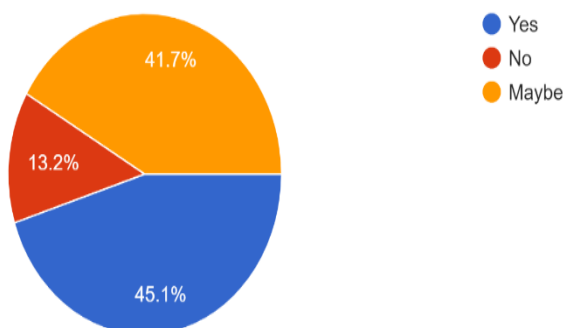


Fig 4.39 Consideration of herbal products in future

The pie chart illustrates the interest in herbal therapies for skin diseases. Of them, 45.1% are contemplating using them in the future, while 41.7% are only thinking about it. 13.2% advise against using it going forward. However, before beginning any new treatment, speak with your physician.

How often do you use herbal products for skincare purposes?

204 responses

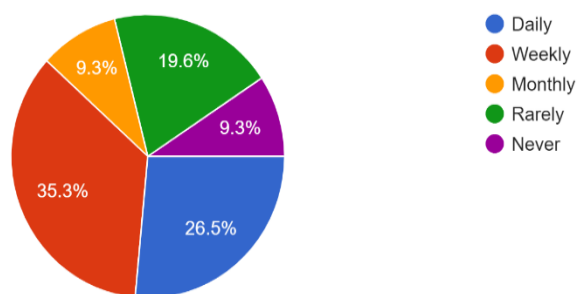


Fig 4.40 Timely use of herbal products

Table 4.11 Timely use of Herbal products

NO	Times	No of participate	% ratio od responded
1	Daily	54	26.5%
2	Weekly	72	35.3%
3	Monthly	19	9.3%
4	Rarely	40	19.6%
5	Never	19	9.3%

From where do you usually buy Skin care products?

202 responses

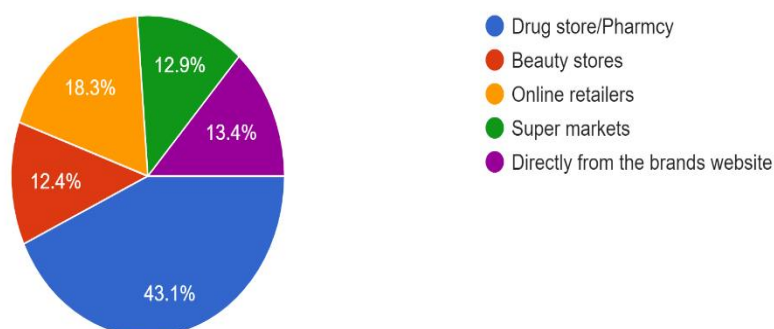


Fig 4.41 Product buying platform

Table 4.12 Insights into consumer behavior and preferences in the skincare product market

No	Preferably Buy Item	Conclusion (% Ratio)
1	Drug stores/Pharmacies	43.1%
2	Beauty stores	12.4%
3	online retailers	18.3%
4	supermarkets	12.9%
5	Directly brand websites	13.4%

Do you track the progress or changes in your Skin's condition over the period of time?
202 responses

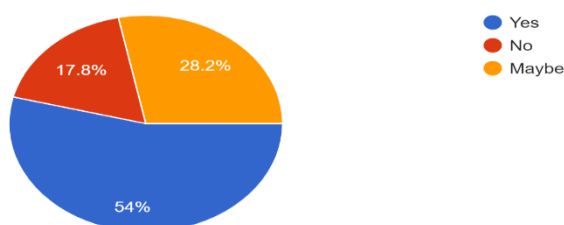


Fig 4.42 Changes in skin condition over period of time.

Out of the 202 respondents, 54% indicated in the pie chart that they do monitor their skin health. A smaller percentage, 17.8% replied no, while 28.2% said maybe.

How important is it for herbal products to be scientifically validated for efficacy and safety?
204 responses

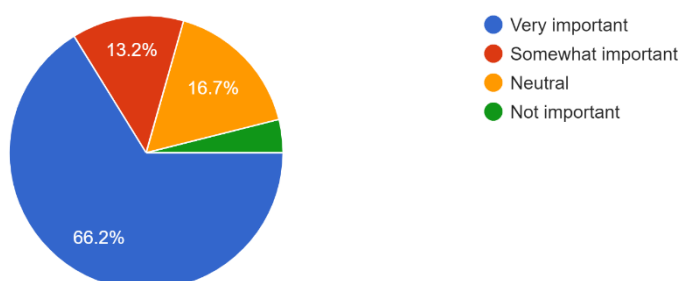


Fig 4.43 Importance of herbal products to be scientifically validated for efficacy and safety

The pie chart reveals that over two-thirds of respondents, or 66.2%, think it is critical that the safety and efficacy of herbal medicines be confirmed by science. In a smaller group, 3.9% stated it is not essential and 13.2% said it is somewhat important. Just 16.7% of respondents indicated they had no opinion on the matter.

Do you believe herbal products are safer than conventional treatments for skin conditions?
204 responses

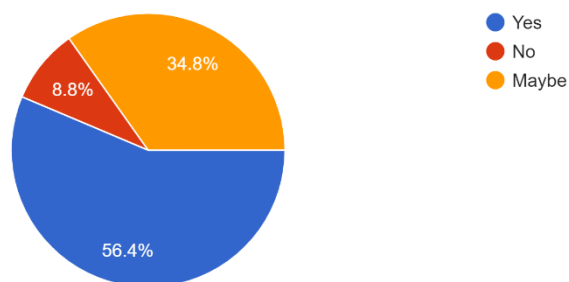


Fig 4.44 Ratio of herbal products to conventional treatment.

According to the pie chart, more than half of respondents—56.4%—think herbal products are less harmful than traditional skin care procedures. A smaller percentage, 34.8%, answered "maybe," and an even smaller number, 8.8%, said "no."

CHAPTER 5: SUMMARY

The study indicates that herbal marketed formulations have a favorable response and may offer advantages in treating skin diseases. However, to ensure a responsible and comprehensive integration of herbal therapies into dermatological practice, further consumer education and thorough scientific validation are necessary.

A statistical technique called two-way ANOVA analysis is used to look at how two independent factors affect a dependent variable. Within the skin cosmetic sector, where prominent competitors compete for customer attention, a two-way ANOVA can offer insightful information about the many aspects that impact sales success when used in the context of a selling scale.

For instance, we may discover that some product categories frequently sell better than others, independent of brand. Simultaneously, we saw that certain brands outperform others across all product categories. Subtle associations, such as a single brand performing very well in a certain product area, May also be revealed by the study.

CHAPTER 6: CONCLUSION

Important new information on the function and effectiveness of the herbal marketed formulations in treating a range of dermatological conditions has come from the survey that was carried out on them. The results indicate that a significant portion of the customer base depends on these herbal remedies since they are thought to be natural and have fewer adverse effects than prescription drugs.

According to our data, the most common ailments for which customers turn to herbal formulations are dry skin psoriasis, acne, and allergic reactions. The fact that most of them report positive results highlights the potential of herbal remedies in dermatological applications. Significantly, our study also reveals a lack of consumer knowledge about the components and modes of action of these herbal medications.

Although herbal formulations show promise in the treatment of skin problems, it is important to take caution when using them because of the absence of rigorous clinical testing similar to that of pharmaceutical therapies and the variety in product quality. As a result, we advise more research to confirm the effectiveness and security of these natural remedies. The goal of this kind of study ought to be to provide precise standards and standardize formulations for use in dermatology.

CHAPTER 7: RECOMMENDATION FOR FUTURE RESEARCH

7.1 PROSPECTS FOR FUTURE RESEARCH

Considering the growing popularity of traditional herbal therapies in the modern day, it is critical to consider how best to include them into a public health framework. India should provide priority to research on natural commodities, agro technology, standardization, and quality control of herbal medicines in order to ensure the industry's sustainable growth. Understanding the nation's socioeconomic context and research-supporting policies would be necessary for this.

7.1.1 COMPARATIVE STUDIES

By contrasting herbal formulations with currently available chemical-based drugs, comparative studies can help to clarify the relative benefits and drawbacks of each within the range of dermatological treatments that are accessible. This can influence clinical recommendations as well as consumer decision.

7.1.2 CONSUMER EDUCATION AND AWARENESS

The survey revealed a lack of knowledge among consumers about the functions of the active substances. Future studies should concentrate on creating instructional materials and programs that support consumers in making knowledgeable decisions regarding the usage of herbal dermatological products.

7.1.3 INTEGRATION INTO MAINSTREAM DERMATOLOGY

The integration of these herbal formulations into the practice of mainstream dermatology should be the subject of future research. Creating instructions on how to safely and efficiently include herbal therapies into treatment regimens for practitioners is one aspect of this.

7.2 FUTURE DIRECTION

Given the increasing use of traditional herbal remedies in the modern period, it is imperative to look at the possibilities for effectively incorporating them into a public health framework (Sen, Saikat and Chakraborty 75). To guarantee the sustainable growth of this industry, India should prioritize research into natural goods, agro technology, standardization, and quality control of herbal pharmaceuticals. This would need an awareness of the country's socioeconomic backdrop and policies that support research (Sen, Saikat and Chakraborty 75).

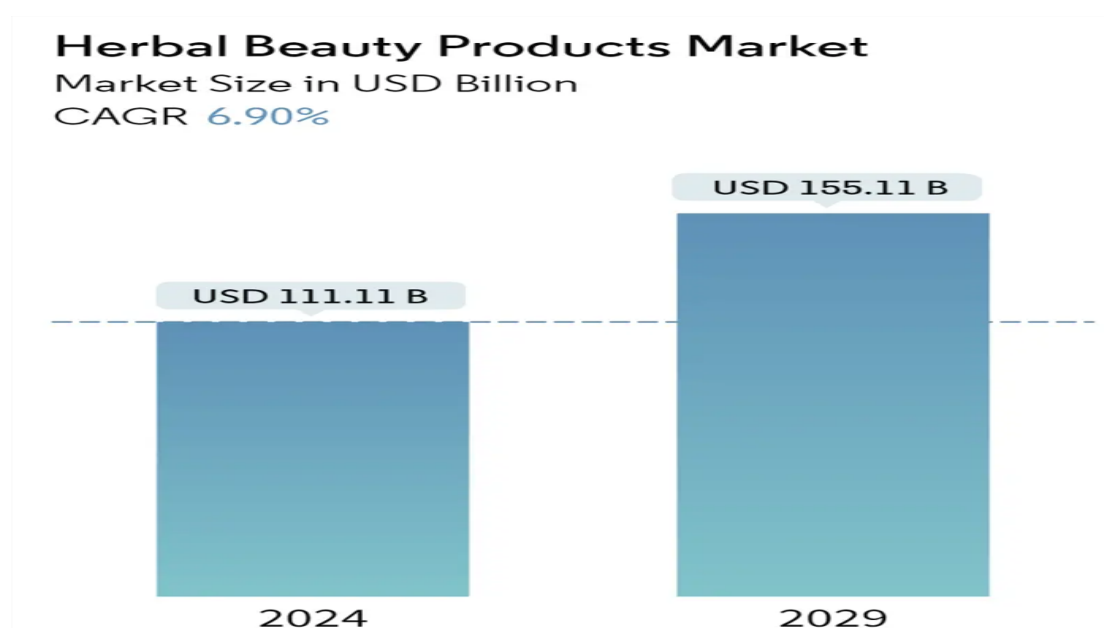


Fig 7.1 The market's size and potential trajectory for herbal beauty products (Mordor Intelligence 1).

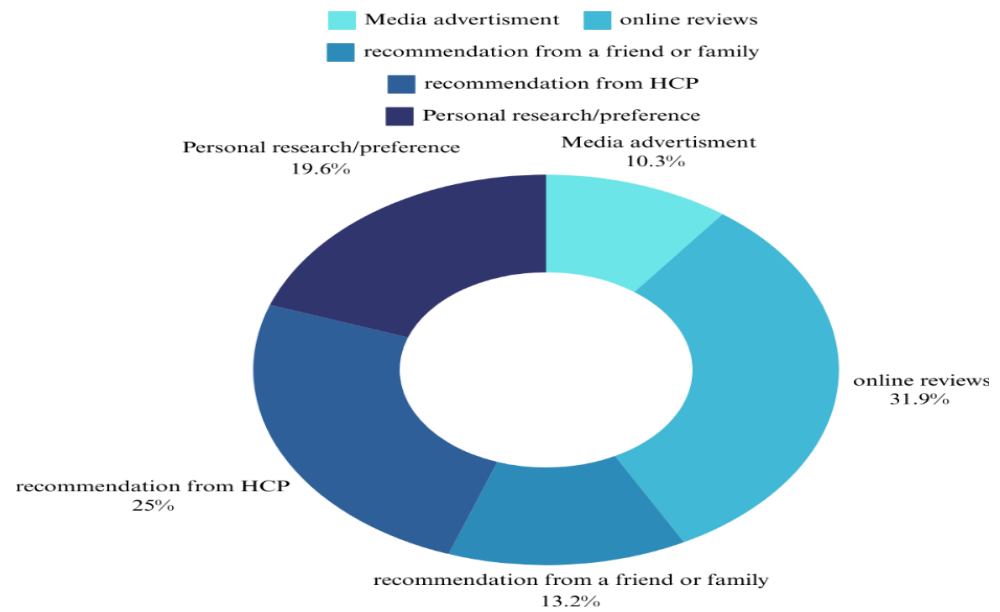


Fig 7.2 Customers impressions of social media impact and advertising trust in India's cosmetics product industry, as a percentage, in 2023 (Mordor Intelligence 12).

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APPENDIX I QUESTIONNAIRE

“DERMATOLOGICAL DISORDER DISCOVERY: UNVEILING SKIN CONDITIONS THROUGH SURVEY ON HERBAL MARKETED FORMULATION”

SECTION A: DEMOGRAPHIC PART AND SKIN CARE ROUTINE PART HOW TO MANAGE SKIN CARE GOAL.

Part 1: Demographic part

- 1) Name
- 2) Age
 - A. Under 18
 - B. 18-30
 - C. 31-45
 - D. 46-60
 - E. Above 60
- 3) Gender
 - A. Male
 - B. Female
 - C. Transgender
- 4) Occupation
 - A. School level
 - B. Undergraduate student
 - C. Postgraduate student
 - D. Working professional

Part 2: Skin Care Routine

- 5) Identify your skin type
 - A. Dry skin
 - B. Oily skin
 - C. Normal skin
 - D. Combination skin

- E. Sensitive skin
- 6) What are you looking for in a skin care routine?
- A. Keep it simple- I want to stick to my current skin care routine of simple daily cleanser, moisturizer and sunscreen
 - B. Expand my routine-I'm open to adding to my current skin care routine with products like toner, eye cream and sunscreen with SPF protection
 - C. Target my routine- I'm looking for active ingredients to help with specific skin concern.
- 7) What are your skin care goals?
- A. To feel more confident in my skin
 - B. To improve the appearance of my skin
 - C. To protect my skin now and for the future
 - D. All of the above
- 8) Preferably seasonal use to skincare product?
- A. Winter
 - B. Summer
 - C. Monsoon
- 9) Which of the following factor decides the selection of your Skin care product?
- A. Brand reputation
 - B. Ingredient list
 - C. Recommendation from friends/family
 - D. Price / Packaging/Appearance
- 10) Have you consulted with a healthcare professional before using herbal products for skin conditions?
- A. Yes
 - B. No
- 11) Have you ever used herbal marketed formulations for skin conditions?
- A. Yes
 - B. No
- 12) How do you apply herbal formulation?
- A. Rub it vigorously
 - B. Apply the formulation directly to the affected area without testing
 - C. Mix the herbal formulation with other skincare products for better results.

- D. Perform a patch test to check for any adverse reactions or allergies.
- 13) How would you rate the effectiveness of the herbal products you've used for skin conditions?
- A. Very effective
 - B. Somewhat effective
 - C. Not effective
 - D. Not sure
- 14) What is your primary skin concern?
- A. Acne
 - B. Dark Circles
 - C. Dry skin

SECTION 2: WHAT DO YOU KNOW ABOUT ACNE?

- 15) Where does acne most often show up?
- A. Face
 - B. Back
 - C. Shoulders
 - D. All of the above
- 16) Do you know about herbal treatments used for acne?
- A. Yes
 - B. No
- 17) Which of the following lifestyle factors can exacerbate acne the most?
- A. Stress
 - B. Unbalanced diet
 - C. Not keeping skin clean
 - D. Lack of exercise
- 18) What do your acne blemishes look like?
- A. White or flesh-colored bumps
 - B. Small, Hard, red bumps
 - C. White or yellowish pus-filled lesions
 - D. Painful, inflamed bumps under skin
- 19) What should be done before using any herbal formulation for acne?

- A. Consult a dermatologist or healthcare professional
 - B. Read the ingredients properly
 - C. Rely solely on online reviews
 - D. Look for potential allergic reactions
- 20) Which of the following herbal ingredients do you use to treat acne?
- A. Honey
 - B. Turmeric
 - C. Aloe vera
 - D. Coffee
- 21) Which of the following herbal marketed formulations do you use daily to treat acne?

(Multiple choices grid)

- A. Rows
 - a. Cream
 - b. Face wash
 - c. Serum
- B. Column
 - a. Mamaearth
 - b. MINIMALIST
 - c. BIOTIQUE
 - d. FOXTALE
 - e. OTHERS

SECTION 3: WHAT DO YOU KNOW ABOUT DARK CIRCLE?

- 22) What is the reason of your dark circles?
- A. Improper sleep schedule
 - B. Poor Blood Circulation
 - C. Stress
 - D. Dehydration
- 23) How much will you describe your dark circle level? (linear scale)
- A. Light
 - B. Dark Brown/ Black
- 24) What other concerns do you have around the eye area?

- A. Eye Puffiness
- B. Wrinkles
- C. Fine lines
- D. No other concerns

25) What type of under eye solution are you currently using to hide your dark circles?

- A. Color corrector
- B. Foundation
- C. Compact Powder
- D. Concealer

26) Which of the following herbal marketed formulations do you use daily to treat Dark circles? (Multiple choices grid)

- A. Rows
 - a. Cream
 - b. Under eye gel
 - c. Face pack
- B. Columns
 - a. MAMAEARTH
 - b. HIMALAYA
 - c. mCaffeine
 - d. BIOTIQUE
 - e. Other

SECTION 4: WHAT DO YOU KNOW ABOUT DRY SKIN?

27) Do you experience dry skin?

- A. Yes
- B. No
- C. Maybe

28) Which areas of your body are most affected by dry skin?

- A. Face
- B. Hands
- C. Arms
- D. Legs
- E. Others

- 29) How would you describe the severity of your dry skin? (Linear scale)
- A. Mild
 - B. Severe
- 30) Have you taken any medical advice or treatment for your dry skin?
- A. Yes
 - B. No
- 31) What measures do you take to manage your dry skin?
- A. Moisturizing lotions or creams
 - B. Humidifiers
 - C. Avoiding hot showers or baths
 - D. Drinking plenty of water
 - E. Dietary changes (e.g., consuming more omega-3 fatty acids)
- 32) What type of treatment did you receive?
- A. Prescription medication
 - B. Topical corticosteroids
 - C. Moisturizers recommended by a dermatologist
 - D. Other
- 33) How satisfied are you with the effectiveness of your current dry skin management routine?
- A. Very satisfied
 - B. Somewhat satisfied
 - C. Neutral
 - D. Somewhat dissatisfied
 - E. Very dissatisfied
- 34) Would you be interested in learning more about skincare routines and products specifically tailored for dry skin?
- A. Yes
 - B. No
- 35) Which of the following herbal marketed formulations do you use daily to treat Dry Skin? (Multiple choices grid)
- A. Rows
 - a. Moisture Cream
 - b. Moisturize Lotion
 - c. Face mask

B. Columns

- a. JOVEES
- b. LOTUS
- c. Bio Fresh
- d. HIMALAYAS
- e. Other

SECTION 5: LITTLE FROM YOUR SIDE

36) What influenced your decision to use herbal products for skin conditions?

- A. Recommendation from friends/family
- B. Online reviews
- C. Media advertisements
- D. Recommendation from healthcare professionals
- E. Personal research

37) Did you experience any side effects by using herbal products for skin conditions?

- A. Yes
- B. No

38) If yes, please describe the side-effects you experienced.

(comments)

39) Are you currently using any prescription medications or undergoing medical treatments for skin conditions?

- A. Yes
- B. No

40) Would you consider using herbal products for skin conditions in the future?

- A. Yes
- B. No
- C. Maybe

41) How often do you use herbal products for skincare purposes?

- A. Daily
- B. Weekly
- C. Monthly
- D. Rarely

- E. Never
- 42) From where do you usually buy Skin care products?
- A. Drug store/Pharmacy
 - B. Beauty stores
 - C. Online retailers
 - D. Super markets
 - E. Directly from the brands website
- 43) Do you track the progress or changes in your Skin's condition over the period of time?
- A. Yes
 - B. No
 - C. Maybe
- 44) How important is it for herbal products to be scientifically validated for efficacy and safety?
- A. Very important
 - B. Somewhat important
 - C. Neutral
 - D. Not important
- 45) Do you believe herbal products are safer than conventional treatments for skin conditions?
- A. Yes
 - B. No
 - C. Maybe

APPENDIX II STATISTICAL DATA

A statistical technique called two-way ANOVA analysis is used to look at how two independent factors affect a dependent variable. Within the skin cosmetic sector, where prominent competitors compete for customer attention, a two-way ANOVA can offer insightful information about the many aspects that impact sales success when used in the context of a selling scale.

For instance, we may discover that some product categories frequently sell better than others, independent of brand. Simultaneously, we saw that certain brands outperform others across all product categories. Subtle associations, such as a single brand performing very well in a certain product area, may also be revealed by the study.

H0: There is no significant difference in the selling scale of different skin care formulation and people opted the major market key players.

HA: There is significant difference amongst selling scale of product with atleast one pair differ.

ANOVA TABLE

Table 1 appendix II: Perform two way ANOVA Test for identifying selling scale and major market player in skin cosmetic.

Major market players in skin cosmetic people opted	Skin Care Formulations (Selling Scale)					
	Anti-Acne		Reducing Dark Circles		Reducing Dry Skin/ Moisturizer	
	X_1	X_1^2	X_2	X_2^2	X_3	X_3^2
HIMALAYA	13	169	10	100	7	49
MAMA EARTH	4	16	12	144	5	25
BIOTIQYE	16	256	9	81	18	324
MINIMALIST	8	64	17	289	15	225
TOTAL	41	505	44	614	45	623

There is significant difference amongst the people opted market players with at least one pair differing.

$$SST = SSC + SSE + SSR$$

Table 2 APPENDIX II: ANOVA Table

Parameter	Value	D.O.F		F _{ratio} (selling scale)	F _{ratio} (people opted)
SST	333.66	(C-1)	(C-1)	0.025	0.625
SSC	2.16		(r-1)		
SSR	78.99	2	3		
SSE	52.50				

Conclusion: Calculated value is less than tabulated value that why hypothesis is accepted.

APPENDIX III PLAGIARISM

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