

Study on Cosmetic Grade Raw Materials and Market Growth of Natural and Organic Cosmetics

Ms. Shradha Yadav

Research Scholar

Dept. of Management

Swami Vivekanand Subharti University, Meerut, U.P., India

Email: shardayadav.rao@gmail.com

Prof. (Dr.) R.K. Ghai

Dean, Faculty of Management & Commerce

Director, AVGSCMC

Meerut, U.P., India

Abstract:

In order to satisfy the quality and safety requirements needed for use in cosmetics and personal care products, cosmetic-grade raw ingredients are specially produced and tested. Though they might not be as strict as pharmaceutical grade, these components are more pure than technical grade.

The report focuses on raw materials used in pharmaceutical, cosmetic, and technical grades. One of the main factors propelling the market for cosmetic raw materials is the growing demand for natural and organic cosmetics. This change has forced producers of cosmetics to find raw resources, like minerals, natural oils, and plant-based extracts, that support these ideals. The green beauty movement is a long-term trend rather than a passing fad.

Movement, indicating that the demand for organic and natural raw materials will continue to expand. Additionally, this change is promoting creativity in the sustainable procurement and processing of these resources.

The study looks at areas based on application and type: Types of Cosmetic Raw Materials: Natural, Synthetic, and Hybrid. By Use: Fragrances, Makeup, Skincare, and Hair care.

The market for cosmetic raw materials is expanding due to rising demand for natural and organic cosmetics. The market for cosmetic raw materials has a significant growth potential due to consumers' growing demand for natural and organic cosmetics. Raw materials from natural sources, like plant extracts and organic compounds, are in high demand as customers prefer eco-friendly and healthier beauty options. The study covers every topic that is relevant.

Reference to this paper should be made as follows:

Received: 20.05.2025

Approved: 16.06.2025

Ms. Shradha Yadav
Prof. (Dr.) R.K. Ghai

Study on Cosmetic Grade Raw Materials and Market Growth of Natural and Organic Cosmetics

Vol. XVI, No.1
Article No. 22,
pp. 194-203

Similarity Check: 12 %

Online available at
<https://anubooks.com/journal-volume/jgv-vol-xvi-no1-jan-june-2025>

DOI: <https://doi.org/10.31995/jgv.2025.v16i01.022>

**This article has been peer-reviewed by the Review Committee of JGV*

General Introduction:

These days, sustainability and environmental consciousness are essential components of every product and service's development strategy.

The application of these concerns to the cosmetics industry is quite pertinent at the moment.

The purity and intended usage of pharmaceutical, cosmetic, and technical grade raw ingredients vary:

- **Technical grade:** Raw materials of lower purity than cosmetic grade.
- **Cosmetic grade:** Produced and examined to satisfy safety and quality requirements for cosmetics and personal hygiene items.

Although they may not be as pure as pharmaceutical grade, they are at least 70% pure. Raw materials of cosmetic quality are unsuitable for use in food or medicine.

- **Pharmaceutical grade:** Fulfill the FDA's exacting purity requirements for use in humans or animals.

All foods are regulated by the FDA and All food and medication products in the US, including both prescription and over-the-counter items, are subject to FDA regulation. Drugs are classified as pharmaceutical or non-pharmaceutical grade by the FDA's Office of Pharmaceutical Quality (OPQ). The OPQ's objective is to guarantee that medications fulfill the FDA's exacting requirements for purity, efficacy, and quality.

Despite the negative impacts of the global crisis, which have significantly altered consumer behavior regarding product purchases, the cosmetics sector represents a global business that has shown exceptional and quick expansion in recent years. Particularly in emerging nations, where the market has far greater potential, the industry has demonstrated its ability to adjust to changes in the market and acquire new specialized goods and technology. With one-third of \$1 trillion (\$333 billion) in yearly revenues, the global cosmetics business would rank it as the 30th largest nation in the world. Over the past five years, demand from emerging economies has caused a rapid increase in conjunction with the forthcoming Olympic Games and World Cup. Together, Latin America and emerging Asia accounted for "more than 60% of worldwide incremental retail revenue"² in 2011 and 2012, and they are predicted to continue to do so. The United States, in particular, recorded "its best performance in more than five years on the back of strong sales of premium brands," demonstrating that developed countries continue to play an important and crucial role. We have seen a significant shift in the way cosmetic and personal care companies formulate their products over the past few decades, with a greater focus on natural, organic, and safety claims made by customers. People are becoming increasingly conscious of the health hazards

concealed in the products they purchase, despite the fact that what they put on their skin may have some detrimental effects on their overall health. The general public is largely unaware of synthetic compounds including hormone disruptors, carcinogens, and allergies. As consumer tastes for chemical-free cosmetic formulae have changed, the cosmetics sector has been able to adapt by moving toward natural and organic cosmetic ingredients, which are gradually replacing hazardous synthetic materials across the whole supply chain. The beauty business is gradually becoming more environmentally conscious and ethical. Size. Understanding the significance of sustainability is crucial to comprehending the evolution and changes that have occurred in the cosmetics sector over time. Sustainability has emerged as the cornerstone of a new era of capitalism, one in which corporate forces and all stakeholders have been impacted in many ways throughout the life cycle of a product. For cosmetic companies, this shift entails investing in the social and ethical aspects of the beauty industry as well as developing novel formulations, and eco-friendly packaging, reducing waste and carbon emissions, and researching alternative materials. In actuality, sustainability entails addressing moral and social issues including animal welfare and human rights defense. Throughout my study, following a succinct historical overview, of the advancements and key findings in the cosmetics sector, I will offer some fundamental ideas regarding the terms “natural” and “organic.” I’ll describe how government and private regulations and certifications control cosmetics classified as “natural” and “organic.” Finding agreed-upon definitions and rules for these concepts is perhaps the most obvious issue. Self-regulation characterizes the worldwide cosmetics and personal care sector in general, and this is especially true when it comes to defining “natural” and “organic” and how these labels should be used. Non-governmental organizations, including business and third-party groups, are primarily responsible for creating the current standards and regulations for natural and organic connections. As a result of this process, consumers are unable to discern between dependable and unreliable items, leading to an inevitable general misunderstanding. A detailed analysis and discussion of the most globally achieved private standards will be provided. Next, we will examine how international tools like WTO provisions and, more specifically, TBT measures can challenge private and governmental standards that are essential to the regulation of cosmetic items. The TBT Agreement mainly addresses the standards of products, covering a wide variety of regulations from product safety and labeling to quality. Regarding cosmetic products, we are aware that several government regulations address the matter of safety and set particular standards and specifications for the components used in cosmetics that must be reached prior to their release onto the market. Clear guidelines for the makeup, labeling, and packaging of cosmetic goods are enforced by

the recently adopted European Cosmetic Regulation No. 1223/2009. The prohibition of animal testing is among the most pertinent and contentious aspects of this regulation. In actuality, the prohibition on animal experimentation is a clear and exemplary illustration of how WTO provisions and standards can influence EU decision-making at various phases.

Due to the country's growing consumption levels and robust demand from export markets, the Indian cosmetics industry has seen a spectacular upswing in recent years. The product line, technological underpinnings, and infrastructure of the sector have all expanded dramatically. According to a study, consumers' purchasing decisions for organic cosmetics are significantly influenced by brand name, health consciousness, and attractiveness consciousness, but not by store environment or environmental consciousness. The data for every variable in the second study on the purchasing habits of consumers for organic cosmetics was deemed trustworthy. The store environment was the only one of the five hypotheses to be rejected; the rest were accepted.

Objectives

- To know the market overview of organic and natural cosmetics
- To know the various ingredients used in the manufacturing of these products
- To know the various harmful chemicals, present in conventional products
- To know the market growth of natural and organic cosmetics.

Product Categories and ingredients in cosmetic products:

Skin products

1. Skin care products
2. Skin cleansing products
3. Body hair removal products
5. Correction of body odor and/or perspiration
6. Shaving and pre- /after-shaving products
7. Make-up products
8. Perfumes
9. Sun and self-tanning products

Here's a quick rundown of what each is:

In addition to emulsifiers and "thicker" substances like butter and oils, water can be used to create emulsions, which are used to manufacture creams and lotions, because it is a universal solvent. Preventing dryness and cracking and reducing moisture loss. Acids, they help to moisturize and nourish the skin or hair.

2. Emollients: These components moisturize, treat, and are used in makeup. They work by covering the skin with a protective layer.

1. Emollients that are natural: Animals and plants are the primary sources of Since they frequently contain high levels of vitamins, antioxidants, and fats.

2. Natural emollients: such as shea butter, coconut oil, and jojoba oil. For certain attributes, synthetic Emollients are commonly used in cosmetic compositions and are produced in labs. Glyceryl stearate, isopropyl myristate, and dimethicone are examples of synthetic emollients. Hydrocarbon emollients, which are inexpensive and made from petroleum, are commonly used in cosmetic formulations. Mineral oil and petrolatum are examples of hydrocarbon emollients. The use of synthetic emollients: due to their low cost.

3. Humectants: These are compounds that attract and retain moisture in the skin, such as urea, hyaluronic acid, and glycerin. These elements help the skin retain and attract water. They work by drawing in and clinging to moisture from the surroundings that is absorbed by the skin. Surface tension between two immiscible materials, such as water and oil. Their hydrophilic (loving water) and lipophilic (loving oil) ends allow them to interact with both polar and non-polar substances. Lotions and shampoos. They are adaptable and thrive in both acidic and alkaline conditions. They are effective at dissolving hydrophobic compounds, such as oils.

4. Amphoteric surfactants: These substances are frequently found in

5. Preservatives: Preservatives are chemicals that are added to cosmetics to prevent the growth of harmful microbes such as bacteria, fungi, and viruses. There are two types of preservatives: plant-based preservatives. These preservatives work well against a variety of microorganisms and are generally thought to be safe and non-toxic. Plant-based preservatives, such as tea tree oil, rosemary extract, and grapefruit seed extract, are commonly included in formulations.

1. Organic preservatives: Fruits, vegetables, and plants are the natural.

They are used as preservatives in nail polish, cosmetics, and scents, to name a few. They are used as softeners in shampoos and are toxins that interfere with growth and reproduction.

1. Parabens: These preservatives keep your skincare and beauty products fresh and hygienic. They are present in a wide range of products, including soaps, lotions, and cosmetics. Research indicates that they interfere with estrogen, also known as the female sex hormone, and can lead to an increase in brain and reproductive activities. According to some studies, parabens mimic estrogen and go through your skin, which causes your breasts to divide too much. This eventually leads to breast cancer.

2. Synthetic colors: Synthetic colors come from coal tar or petroleum. Coal tar is also a common ingredient in commercially available eyeshadows. Synthetic colors can cause skin irritations, cancer, and acne problems.

3. Toluene: This petrochemical solvent is present in most hair colors and nail paints. In addition to threatening your immune system, they may raise your risk of blood cancer and birth defects. Toluene can cause headaches, nausea, fatigue, and drowsiness because of its effects on the human central nervous system.

4. Talc: This moisture-absorbing ingredient is mostly found in baby powders, eye shadows, blush, deodorants, and some soaps. However, there is proof that talc and ovarian cancer are related. When a woman who had used Johnson & Johnson talc for 35 years died of ovarian cancer, it sparked concern. Inhaling talc can cause lung cancer.

5. Petrolatum: This substance softens dry skin when used. Lip balms and moisturizers include petroleum. It creates a barrier to prevent water from escaping and prevents moisture from absorbing from the air. You eventually find yourself needing to reapply lip balm because your skin dries out.

6. Alcohol: Alcohol is frequently used as a solvent in skincare products. Because it facilitates better absorption of the products, it works well with a variety of creams and lotions. However, alcohol is one dangerous ingredient in skincare products. Drying alcohol, which is used in 158 GSCIM-21C ISBN:978-81-962550-1-5 skincare products, can result in dry, flaky skin. It prevents the skin from renewing itself.

7. A thickening ingredient called polyethylene glycol (PEG) is utilized in skincare items like shampoos, sunscreens, and lotions. Cancer and respiratory problems may result from it. It can also cause your skin to lose its natural oils, or sebum, and increase the amount of sebum produced by the sebaceous glands that generate it. This can make your skin look greasy.

8. Formaldehyde: Skincare products often contain this preservative. This colorless gas is used to prevent the growth of microorganisms. Formaldehyde is found in shampoos, deodorants, lotions, nail gels, hair straightening products, nail paints, and makeup. It has been connected to neurotoxicity, scalp burns, hair loss, and developmental toxins, as well as asthma. Despite being dangerous compounds, there is no information on the minimum amount needed in a product to qualify as such. Additionally, because customers utilize a range of products, it is challenging to determine whether the side effects were brought on by a particular product.

4.6 International certifications and regulatory bodies Since every nation has its own regulatory body, this study focuses on the Indian cosmetics regulating authority.

What do 'natural' and 'organic' mean

There is a straightforward difference between natural and organic cosmetics:

- Natural components derived from plants, animals, or minerals make up a large percentage of natural cosmetic products. They attempt to minimize the usage

of artificial components, particularly those derived from the petrochemical sector. Nonetheless, they may consist of vegetables, dairy products, or egg products derived from intensive farming.

- With formulas that incorporate natural ingredients from organic farming, organic cosmetics go one step further.

While an organic cosmetic product is also a natural cosmetic product, a natural cosmetic product might not be organic!

Although they are natural substances, water and minerals do not qualify as organic. This is due to the fact that they are not acquired by means of a production procedure in agriculture. In cosmetic compositions, water frequently plays a significant role. Nonetheless, water-free or mineral goods with COSMOS ORGANIC certification, like some massage oils, can be made entirely of organic components. The COSMOS NATURAL or COSMOS ORGANIC emblem is accompanied by the name of the certifying authority.

Natural or organic raw materials can be used to make cosmetics without the use of industrialized inputs. According to the Ministry of Agriculture, Livestock, and Supply, organic products originate from an organic system of agricultural production through an extractive process in a sustainable manner; therefore, they must be certified by bodies accredited by the Ministry of Agriculture, Livestock, and Supply. The inputs classified as natural come from minerals, plants, and animals (Peres et al., 2021). Due to the abundance of important raw resources, Brazil boasts the highest plant biodiversity in the world, which supports the expanding market for natural and organic cosmetics (Magalhães, 2018). One of the basic materials that has the highest The various kinds and fractions of medicinal plants, plant extracts, natural colors, fruits, vegetable oils, essential oils, and resins stand out as having economic potential for the creation of natural and organic cosmetic products. The active ingredients in medicinal plants are frequently utilized to make herbal remedies, but they can also be used in the cosmetics sector. Fruits are more frequently employed in lotions, shampoos, and conditioners, but natural dyes are highly intriguing for the manufacturing of cosmetics, particularly makeup. Since vegetable oils are mostly composed of triglycerides, which make them resistant to evaporate, they are frequently utilized as base ingredients, emollients, and moisturizers. Lastly, essential oils are among the primary components of the manufacture of natural cosmetics that are utilized as condiments, fixatives, perfumes, and scents (Miguel, 2012; Zucco et al., 2020). Numerous cosmetic products contain natural ingredients that serve a particular biological purpose; nonetheless, these products need to be assessed for both efficacy and toxicological effects (Santos et al., 2015). Organic and natural

substances can serve a variety of functions in various formulations, whether or not they are aesthetically pleasing. Among the active ingredients frequently found in natural cosmetics are: Aloe vera, which has antibacterial, anti-inflammatory, therapeutic, and moisturizing qualities; coconut oil, which is used as a foundation for cream and sunscreen formulas and soaps; tea tree oil, which has antiseptic, anti-irritating, and healing qualities and is applied externally to treat acne and other skin conditions like psoriasis and eczema; and rosehip oil, which is moisturizing, antiseptic, healing, and tissue regenerator, and is frequently used to treat scars and stretch marks (Nakagami et al., 2020). The plant-based raw material is abundant in a number of components that support and enhance the skin's appearance. Among these are flavonoids, which are abundant in fruits, vegetables, and other foods and have an active antioxidant effect. Skin protection against endogenous and external hazardous substances is provided by the use of flavonoids in cosmetic formulations, which also makes it possible to avoid and therapy of skin conditions as well as avoiding early skin aging (Henrique & Lopes, 2017). Certain plants, like *Matricaria chamomilla*, which is abundant in anti-inflammatory and antinociceptive chemicals, have a strong capacity for photoprotection and are still naturally shielded from UV-B rays (Saretta & Brandão, 2021; Nobrega et al., 2013). A study conducted by Cavinato and colleagues (2017)

Market size and Growth of Natural and organic cosmetics

North Asia is the largest market for personal hygiene and cosmetics. In 2021, almost one-third of the market was in North Asia. China has become the industrial leader in this region. North America accounts for about 26 percent of the market. Twenty-two percent come from Europe. By 2029, the market for organic skincare products is expected to have grown from its estimated USD 8.5 billion in 2024 to USD 13.76 billion at a compound annual growth rate (CAGR) of 10.11%. It is anticipated that the organic cosmetics market will be worth US\$ 19.6 billion in 2022. At a 5.1% CAGR, the market is expected to expand from US\$ 20.5 billion in 2023 to US\$ 33.7 billion in 2033. It is anticipated that the following factors will boost sales of organic cosmetics:

Increasing public awareness of the dangers of hazardous compounds like parabens and sulfates is driving the market's growth. Giving the impression that it is dead. The global market for organic cosmetics is expanding as a result of consumers using organic products more frequently to achieve glowing, smooth skin and avoid aging. Anti-pollution and anti-acne campaigns are growing in popularity among younger customers.

The market for organic cosmetics is dominated by women's demographics. They frequently spend more time and money taking care of their skin, which includes

washing, moisturizing, and using different skincare products. As a consequence, organic cosmetics have become increasingly popular among women. The global market for natural and organic cosmetics was estimated to be worth USD 21.48 billion in 2023 and is expected to grow to USD 37.44 billion by 2032. The market for natural and organic cosmetics is anticipated to expand significantly as a result of shifting customer tastes. Important Market Points:

This growth can be explained by a number of factors:

- Growing public concern for environmental sustainability, particularly in developed and developing nations, and the desire to support eco-friendly products;
- Growing demand for clean-labeled and organic products, which are seen as safer and healthier due to their natural ingredients;
- Growing consumer awareness, particularly after the pandemic, of the possible negative effects of synthetic chemicals in traditional cosmetics;
- The influence of social media and beauty influencers, who have millions of virtual followers, in promoting organic lifestyles and beauty trends. Growing market segments like millennials and Gen Z prefer ethical and sustainable brands to make environmentally conscious decisions and support socially responsible practices; regulatory pressure for stricter standards and transparency in cosmetic ingredients due to concerns about consumer safety and health; and the expansion of distribution channels and the emergence of specialized beauty platforms in emerging economies, which make organic cosmetics more accessible to consumers.
- Improvements in the formulation of organic products and increased global availability of organic raw materials' favorable reactions to cruelty-free manufacturing methods, animal welfare, and organic farming practices

Conclusion:

The current study comes to the conclusion that there has been a notable increase in demand for sustainable and natural products, particularly in the cosmetics sector. Customers' awareness of the current state of the environment and their concern for their own health are the causes of this shift in consumer behavior, and businesses are also taking notice of these issues to establish their place in the market. Nonetheless, the market for sustainable cosmetics is still smaller than that for traditional cosmetics, which is mostly because of false information from customers. In order to ensure improved environmental conditions for future generations, our research can help users become more informed and conscious so that everyone moves toward sustainability. The design and development of every product and service now heavily considers sustainability. Sustainable development is the primary goal that all cosmetic companies should strive for, as I have emphasized throughout my study. It is thus necessary to

implement specific methods that are focused on economic, social, human, and environmental sustainability at each stage of the product's life cycle. These various components must be in equilibrium with one another.

References

1. <https://cliniexperts.com/india-regulatory-services/cosmetic/for-importer/list-of-full-categories/> Drishti. (2023). Regulatory Challenges of Indian Drugs. Drishti. Google. (2024).
2. Howarth, J. (2023). The Ultimate List of Beauty Industry Stats (2024).
3. India, G. O. (2024, February). Central Drugs Standard Control Organization.
4. Retrieved from <https://cdsco.gov.in/opencms/opencms/en/Home/Insights>, G. (2024). Sustainable Beauty: A Movement Redefining the Cosmetics Industry. Gray Group International.
5. Mordor intelligence. (2024, February). Organic Skin Care Market Size & Share Analysis - Growth Trends & Forecasts (2024 - 2029) Source: <https://www.mordorintelligence.com/industry-reports/organic-skin-care-market>.
6. Retrieved from mordorintelligence:<https://www.mordorintelligence.com/industry-reports/organic-skin-care-market> Shakeel, S. a. (2019). Consumer Buying Behavior: Organic cosmetics versus non-Organic cosmetics. MPRA Paper.
7. Shivangi Sharma, U. A. (2023). The Art and Science of Cosmetics: Understanding The Ingredients. Cosmetic Products and Industry - New Advances and Applications.
8. Sindhuja, S. L. (2022). A Study on Buying Behaviour of Consumers Towards Organic Cosmetic Products in Madurai City. Shanlax International Journal of Arts Science and Humanities.
9. <https://purecoindia.in/organic-personal-care-is-a-growing-market-in-india/#:~:text=According%20to%20a%20recent,US%24%201%2C239.04%20million%20in%20FY2026>
10. <https://explodingtopics.com/blog/beauty-industry-stats#organic-beauty-products-stats>
11. <https://www.mordorintelligence.com/industry-reports/organic-skin-care-market> 163
12. <https://www.futuremarketinsights.com/reports/organic-cosmetics-market#:~:text=Women's%20Demographics%20Dominate%20the%20Organic%20Cosmetic%20Market&text=They%20often%20dedicate%20more%20time,cosmetics%20in%20the%20female%20demographic..>