CHAPTER 1

Introduction
1. INTRODUCTION

As the lifestyle of the people around the world is changing, due to socio-cultural, economic and other influences, many new industries are emerging. The personal care industry is one such industry which has a new hot topic that is “Cosmeceuticals”, which is the fastest growing segment of the personal care industry. The term cosmeceutical was coined in 1961 by Raymond Reed, founding member of the U.S. society of chemists. He originally conceived the word to describe “active” and science based cosmetics. The word and concepts were further popularized by Dr. Albert Kligman in the late 1970’s. Common usage has expanded the definition to include “a cosmetic that has or proposed to have medicinal property”.

Cosmeceuticals is the collaboration between the pharmaceutical active ingredient and the cosmetic. Cosmeceuticals are considered to be the fastest growing category with in the skin care industry. Cosmeceuticals are applied topically, as are cosmetics, and they contain an active ingredient which is a pharmaceutical ingredient and this pharmaceutical ingredient alter the biological function of the skin. Cosmeceuticals are the products which improve the texture of skin, its tone, its appearance and also remove the wrinkles by delivering essential nutrients which are required for a healthy skin. The ingredients used in cosmetics are not stronger as that of ingredients used in cosmeceuticals products. But the ingredients used in cosmeceuticals are less strong than the pharmaceuticals. Because of this reason the cosmeceutical products are dispensed without prescription and can be used regularly.

“Vanity thy name is woman” is an adage which has few followers in this era. Everyone has the right to look good and people across society want themselves to be beautiful or handsome. The global world we are living in sets stereotypes that become models. These models are a part of the ambience that we thrive : in magazines, on television, in the fashion shows, in the commercials, in the streets and even at work or at school. It is a fact that everybody in this world, men as well as women, want to look like the magazines’ figures since a perfect skin and a healthy body leads to a perfect life. The generation X and Generation Y have distinct personality traits. Many companies have seen the market potential in these veritable goldmines.
In the cosmetic world the concept of women cosmetic market is prevalent since decades whereas the idea of men cosmetic market or selling the cosmetics to men is booming since last couple of years. The male body, before eclipsed by its female counterpart, is more and more shown off in the media, advertisement or the cinema. These days consciousness in men is growing for their body and skin and the needs to conform to the injunctions of youthfulness, healthiness, and thinness which make them go from “sanitarians to body aesthetics”. The concern of the men for their appearance has developed from the development of fashion magazines for men. A sudden increase of the male press, in the last few years, goes all together with the consumption of beauty products for men. The concept of “alpha” male and “metrosexual man” is the product of this day and age. Therefore these days’ men are more conscious of their looks and beauty.

The main issue facing those within the cosmeceutical industry today is proof of effectiveness. Consumers, cosmetology experts, and other concerned parties insist that cosmetics companies prove that cosmeceuticals actually work. Those demanding evidence are worried that consumers may purchase expensive cosmeceuticals based upon misleading advertising campaigns. However, various cosmetics companies have met this demand by publishing product success reports. Essentially, it is up to each consumer to understand and read all product labels. Cosmeceutical products do not need to list active ingredients separately from other ingredients, which may make deciphering a product’s label somewhat difficult.

For many marketing companies/managers customer satisfaction has been widely accepted as an important issue. It is commonly used as a marketing benchmark of a company's performance (Bennett & Rundle-Thiele, 2004). In spite of all these doubts, (regarding the acceptance of the product by the consumers) a lot of money was invested by the marketers in their marketing plan to attract consumers to buy their product or service. To meet the specific needs and wants of the consumers and to make them satisfy with their products marketers has to deal with this ongoing process. To offer different types of products to the consumers in the market is not the only way to sustain in the market but the real task is to satisfy the consumers along with sustaining profit, this will lead to the survival of the company in the market place.
Furthermore, it is generally believed that a satisfied customer is more likely to display loyalty behavior, i.e. repeat purchase and willingness to give positive word of mouth (Taylor, 1998; Bennett & Rundle-Thiele, 2004; Schultz, 2005). Although this is the case, Taylor (1998) stated that "companies began to notice that they often were losing customers despite high satisfaction".

1.1 Classification of cosmeceuticals

Cosmeceuticals with different names

The term cosmeceuticals is used with different names. For all the terms the definition remains the same i.e. cosmeceuticals are the formulations which were neither pure cosmetics, like lipsticks, nor pure drug, like corticosteroids. It is hybrid categories of which cosmeceuticals are substituted are: (Kamal, 2007).

According to Jimtaisong (2009), the alternative terms for cosmeceuticals are five and these are as follows:

1. Active Cosmetics.
2. Performance Cosmetics.
3. Functional Cosmetics.
4. Dermaceuticals.
5. Nutricosmetics.

The Active Cosmetics Division meets the needs of “borderline” skin which is halfway between healthy and problem skin, through all types of health channels worldwide: pharmacies, beauty and health retailers, drugstores and medi-spas. Whereas the performance cosmetics have created and developed on the premise that the general public should enjoy the same quality product that makeup artists have with excellent results from years. These products were not tested on any animals and contain no fragrances yet are durable, long lasting, and easy to apply, and the colors stay true and clear. Functional cosmetics aren’t just a fad that means manufacturers add the latest ‘natural’ ingredient to their product and market it as a miracle cure for wrinkles. The hype is actually backed up with hard, scientific facts and a plethora of
research into the properties of a wide range of plant extracts, often taken from plants referred to as 'super-herbs'. If the researcher talks about dermaceuticals then these can be divided into two words: Dermatological and Pharmaceutical. Dermaceuticals are specifically designed for use in skin care and are developed with the skills of pharmaceutical science.

Dermatological + Pharmaceutical = Dermaceutical

The words Cosmeceutical and Dermaceutical are usually interchangeable, with the latter referring to active skin preparations specifically. On the other hand nutricosmetics are nutritional supplements which purport to support the function and the structure of the skin. Nutricosmetics are products of natural origin that enhance your natural beauty. Nutricosmetics rely on the premise that the key to beauty is keeping a healthy body through both personal care and nutrition. Nutricosmetics are not "miracle cosmetics", but a type of cosmetics that can prove very efficient when taken regularly and consistently. A healthy diet combined with Nutricosmetics ensures achieving the coveted results and reinforces the effects of traditional cosmetics.

![Figure 1.1](http://www.mfu.ac.th/school/cosmeticscience/admin/uploadCMS/upload/LFwORxAMon100211.pdf)
The cosmetic industry registered impressive sales worth Rupees 422.3 billion (US $ 9.3 billion) in 2010. The sector has mainly been driven by improving purchasing power and rising fashion consciousness of the Indian population. Moreover, the industry players are readily spending on the promotional activities to increase counter awareness. The growth of this cosmeceutical market is around 10 to 15 percent each year, reports Health World Online. The cosmeceuticals market, particularly skin care, continues to grow at about double the pace of the cosmetic and toiletries market. The cosmeceutical products are classified into three major categories.

According to Kamal (2007), Cosmeceuticals can be classified into the following categories:

1. Skincare Cosmeceuticals.
2. Hair care Cosmeceuticals.
3. Other cosmeceuticals.

In the researchers study the researcher is focused only towards the skincare cosmeceutical products.

![Cosmeceuticals Diagram](http://www.pharmainfo.net/reviews/cosmetic-world-new-substrate-pharmaceuticals)
The term cosmeceuticals is used by many skin care companies, especially those sold or endorsed by dermatologists to give the impression the products have more effective and more biologically active ingredients than just ordinary cosmetics. Cosmeceuticals are nothing more than a marketing term with illusion of grandeur. Even the FDA says cosmeceuticals do not exist and considered these products to be merely cosmetics with clever marketing language attached. Many skin care treatment contains ingredients that affect the biological function of the skin that is why cosmeceuticals differ from cosmetics. The concept of cosmeceuticals is spreading its wings rapidly all over the world and cosmetics are no longer only restricted to beauty and skin care products. Pharmaceuticals are making rooms into the cosmetic world at a great pace and resulting in the genesis of "cosmeceuticals" which are not only contains the cosmetic ingredients but also contains certain pharmaceutically active ingredients.

1.2 Ingredients used in Cosmeceuticals

The ingredients that are used in cosmeceutical products can be divided into five categories:

Ingredients play as one of the important role in safety using the cosmetic product. As mentioned by (EWG, 2007) through a new investigation of 833 name-brand sunscreens, they found widespread evidence that many products on the market are not safe and effective, including one of every eight high-SPF sunscreens that does not protect from UVA radiation. They have also identified 135 products that offer very good sun protection with ingredients that present minimal health risks to users.
Broadly the cosmeceutical ingredients are classified into five categories. These are:

1. Anti-Inflammatory Agents.
2. Depigmenting Agents.
4. Antioxidants.
5. Skin Renewal Agents.

Talking about the anti-inflammatory agents, there are two major anti-inflammatory agents which help in preventing the inflammation of the skin. Those two ingredients are Salicylic Acid and Glycolic Acid. The second broader classification is the depigmenting agents which help the skin from pigmentation or it can be said that these agents help in making the skin colour brighter. Under this category, the main ingredient is Arbutin. The clinical effects of arbutin as a skin lightener remain unclear. The third group of cosmeceutical ingredient is barrier enhancing agents. The barrier enhancing agents usually promote water retention and barrier function. Under this category there are two ingredients: one is Ceramide and the other is Phosphatidyl-Choline. The fourth major category of cosmeceutical ingredients are the antioxidants.
The main function of the anti oxidants is to provide proper oxygen to the skin cells so that cells look younger. There are mainly three antioxidants which are used in cosmeceuticals and these are Vitamin – C, Vitamin – E and Plant Phenols. Last but not the least the fifth cosmeceutical ingredient category is of skin renewal agents and these consists of Vitamin – A, Endogenous growth factors and Oligopeptides. The major function of these ingredients is to renew the skin cells which are damaged and make the skin look healthy. Most of the ingredient in the cosmetic product involve of chemical rather than natural elements that will influence the skin of cosmetic users. According to Rodda (2004), the two common active ingredients in skin care and beauty products are AHA (alpha hydroxyl acid) and BHA (beta hydroxyl acid).

1.3 Anti-Wrinkle Products

It is originated in 1375 till 1425 (dictionary.reference.com/brows/wrinkle). Old English gewrincelian, past participle of gewrincelian to wind round, perhaps akin to wrick, wrench. According to Collins dictionary it means a slight ridge in the smoothness of a surface, such as crease in the skin as a result of age. Products which are used to reduce the creasing or puckering of skin or used for smoothing skin surface for under the category of anti-wrinkle creams as appearance of wrinkles is a sign of skin aging these products are alternatively called anti-aging creams. It is known to everyone that for a healthy skin it is important to have a proper nutritional balance which can be obtained through a balanced diet. To prevent wrinkles skin needs powerful ingredients in balanced quantity.

1.4 Anti-aging cream

Anti-aging cosmeceutical products or creams are those which have a moisture base and are marketed to consumers with an assurance to make the consumer look younger by preventing or masking their aging signs. The signs of aging which are masked by anti-aging creams include wrinkles, redness, poor texture, abnormal growth, discolouration of skin etc, there are anti-aging creams which specifically focus on the aging process due to sun exposure. Earlier the anti-aging creams are marketed for women only but now these are focused towards men also.
1.5 Acne creams

In this world acne is considered to be the most irritating and common skin care problem for many people. This problem occurs mostly at teenage but not limited to this age group but it is also seen in people above teenage groups. During the acne days you feel that you have tried everything to prevent this acne but it came back again and again. In terms of medical terminology acne is referred as Acne Vulgaris, which is said to be a skin disease that involves the base of the hair follicles and the oil glands. In human body pimples can occur at different places such as face, back, chest, neck and shoulder. As per dermatologists the acne problem occur approximately three-quarters of 11 to 30 year-olds. The acne problem can affect both men and women though the young men suffer from acne problem for a longer period of time which might be due to the higher levels in young males. The acne problem mostly occurs in people who have oily skin and one can say that both of these i.e. acne and oily skin go side by side and to control the oil production is a difficult task. For temporary basis it is good to mask the skin with clay which will absorb the oil from the skin but care should be taken that the mask should not contain any irritating ingredient.

1.6 Sunscreen

Sunscreens are also commonly known as sunblock, sunburn creams, sun creams etc. these sunscreens can be in the form of spray, lotion, gel or other tropical products and is applied to the skin which then helps in reflecting the sun’s ultraviolet radiations upon exposure to sunlight and hence prevent the skin damage or prevent sun burns. Skin-lightening products have sunscreen to protect lightened skin because light skin is more susceptible to sun damage than darker skin. The criteria for categorising protection have changed, so that for new products, only SPF 50+ can be classified as very high protection.

1.7 Fairness Creams

Fairness is a noun and according to Webster dictionary it means fair complexioned. All those creams which help in making and individual fair complexioned would fall under the category of fairness creams. Ingredients can include the chemicals or
reagents for reduction of melanin (skin pigment) or sun protection formula (SPF 15, 14 etc.) which prevent tanning by acting as a sun block.

Annual report 2007-2008 of sun pharma the company has mentioned that their markets across the other BRIC countries continued to be the fastest growing part of their business. The company is striving to emerge as the first branded generic.

Beside this another indigenous company called Hunan China Sun Pharmaceuticals Machinery Company Ltd is also operative in China. It produces and sells Pharmaceutical equipments it has no link with sun pharma India.

Examples of cosmeceutical products from Hindustan Uniliver and Procter and Gamble and Vicco.

<table>
<thead>
<tr>
<th>So. No.</th>
<th>Company</th>
<th>Product</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Hindustan Uniliver</td>
<td>Advance Renewal Night Cream</td>
</tr>
<tr>
<td>2.</td>
<td>Hindustan Uniliver</td>
<td>Advance Renewal Day Gel</td>
</tr>
<tr>
<td>3.</td>
<td>Hindustan Uniliver</td>
<td>Visible Radiance Fairness Gel</td>
</tr>
<tr>
<td>4.</td>
<td>Hindustan Uniliver</td>
<td>Visible Radiance Fairness Cleanser</td>
</tr>
<tr>
<td>5.</td>
<td>Hindustan Uniliver</td>
<td>Advance Brilliance Face Mask</td>
</tr>
<tr>
<td>6.</td>
<td>Hindustan Uniliver</td>
<td>Advance Brilliance Face Gel</td>
</tr>
<tr>
<td>7.</td>
<td>Procter and Gamble</td>
<td>Regenerist Micro-Sculpting Face Cream</td>
</tr>
<tr>
<td>8.</td>
<td>Procter and Gamble</td>
<td>ProX Age Repair Lotion with Sunscreen Broad Spectrum SPF 30</td>
</tr>
<tr>
<td>9.</td>
<td>Procter and Gamble</td>
<td>Regenerist Luminous Tone Perfecting Cream</td>
</tr>
<tr>
<td>10.</td>
<td>Procter and Gamble</td>
<td>Total Effects blemish control salicylic acid acne cleanser</td>
</tr>
<tr>
<td>11.</td>
<td>Vicco</td>
<td>Turmeric Skin Cream</td>
</tr>
</tbody>
</table>

Table: 1.1

1.8 Herbal Cosmetics

Herbal cosmetics are the preparation which represents cosmetics associated with active bioactive and pharmaceutical ingredients. The use of phytochemical from a wide variety of botanicals has dual function (i). They serve as cosmetics for the body and its parts and (ii). The botanical ingredients present influence biological functions of skin and provide nutrients necessary for the healthy skin. They are also topically
applied and considered more preferred with compare to cosmetics. Auyr, Himalaya, Vico and Lotus are the major players in herbal cosmeceuticals.

**Contribution of India towards herbal products**

According to DSIR (Department of Scientific and Industrial Research) total global herbal market is of size 62 billion USD and in this India’s contribution is only 1 billion USD.

**Worldwide contribution of herbal products**

<table>
<thead>
<tr>
<th>Market</th>
<th>Size (USD Billion)</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>28</td>
<td>45</td>
</tr>
<tr>
<td>Rest EU</td>
<td>2.4</td>
<td>4</td>
</tr>
<tr>
<td>ASEAN</td>
<td>10.8</td>
<td>19</td>
</tr>
<tr>
<td>Japan</td>
<td>9.8</td>
<td>16</td>
</tr>
<tr>
<td>North America</td>
<td>6.9</td>
<td>11</td>
</tr>
<tr>
<td>Others</td>
<td>4.1</td>
<td>7</td>
</tr>
<tr>
<td>Total</td>
<td>62</td>
<td>100</td>
</tr>
</tbody>
</table>

Table: 1.2