



# Landscape Study: Beauty, Health & Wellness Industry

Market Study for Company A

**boston**ANALYTICS

*(A division of Pythos Technology LLC)*

# Agenda

**Executive Summary**

**Convergence of the Pharmaceutical, Nutrition and Cosmetic Industries**

**Evolution of the Nutraceutical, Cosmeceutical and Nutricosmetic Segments**

**Success Factors and Market Drivers**

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# Executive Summary (1/2)

- Cosmeceuticals, Nutraceuticals and Nutricosmetics are fast growing segments of the health & wellness industry
  - Globally, these segments are growing at approx. 4%–8%
  - Geographical dominance is observed in different segments; for example, China and Japan are large, growing Nutricosmetic markets and account for over 90% of global sales, while the U.S. leads in the Nutraceutical category (about 45% of the market)
  - Demand in these segments is driven by an increasing awareness and need for preventive healthcare, natural therapies and anti-aging products
- The pharmaceutical, nutrition and personal care industries are drawn towards these emerging market segments due to their growth potential and eroding sales in these established industries
  - In the nutrition and personal care segments, the move is driven by a need for differentiation as the markets mature
  - In pharmaceuticals, the move is driven by decline of top line sales in core business and expiring patents
- Cosmeceuticals, Nutraceuticals and Nutricosmetics are driven by specific competencies aligned to pharmaceuticals, nutrition and personal care
- Success in these emerging segments requires the careful convergence of specific competencies across the pharmaceutical, personal care and nutrition industries, including R&D / clinical testing, sourcing (for natural compounds), marketing, branding and distribution
- Acceptance of these trends has also encouraged the growth of specialized service-delivery formats such as spas, restaurants and gymnasiums that serve products like collagen rich foods
  - Jamba Juice follows a Starbucks-like format to retail their natural juices, smoothies and energy drinks, while using their consumer connect to successfully promote a line of packaged beverages
- Depending on considerations such as geographic markets, product positioning, degree of scientific support required and scope of distribution, three major types of growth strategies exist:
  - **Organic growth**, primarily observed in the Cosmeceutical space. E.g., Estée Lauder's range of in-house Cosmeceuticals
  - **Mergers or Acquisitions**, typically observed in the Nutraceutical space. E.g., Acquisition of Schiff Nutrition by Reckitt Benckiser
  - **Joint Ventures**, observed primarily in the Nutricosmetic space. E.g., Innéov, a joint venture between L'Oréal and Nestlé

# Executive Summary (2/2)

- The success factors for the Nutraceutical, Cosmeceutical and Nutricosmetic segments are different and driven by geography, competencies and an understanding of the perceptions around product types within each segment

## **Nutraceuticals:**

- While both Food & Beverage (F&B) (or CPG conglomerates) and pharmaceutical companies have displayed interest in this segment, F&B companies have transitioned more easily into it as they possess competencies in food formulation, an existing consumer base and the right branding and messaging machinery
- Dietary supplements or the Vitamins, Minerals and Supplements (VMS) segments are closer to the pharmaceutical portfolio, while F&B companies find it easier to extend their portfolio into meal replacements, fortified foods, natural ingredient foods and energy drinks
- Food companies have also started foraying into medical foods (e.g., Nestlé liquid supplements), however pharmaceutical companies have the advantage of an existing customer base and R&D capabilities in this sphere

## **Nutricosmetics:**

- CPG and F&B companies are best suited to target the Nutricosmetics segment, which may be considered an offshoot of the Nutraceuticals market
- However, the F&B segment is known to largely benefit by associating Nutricosmetics product with a cosmetic ingredient or brand name
- Nutricosmetic products range from nutritional pills that help improve skin and hair texture to collagen drinks and candy

## **Cosmeceuticals:**

- Cosmeceuticals fall in the domain of cosmetic companies (e.g., Nu Skin), due to a readily available consumer segment. Though the formulations are pharmaceutical in nature, the perception of beauty is associated strongly with cosmetics companies
  - Most cosmetics companies however lack R&D support and establishing credibility with customers remains a challenge for them
- While these three segments will evolve continuously, and break industry barriers with hybrid products, CPG and cosmetic companies seem better equipped to experiment and tap into these niche markets. Pharmaceutical companies need to react swiftly to protect existing markets, and increase growth opportunities in these segments

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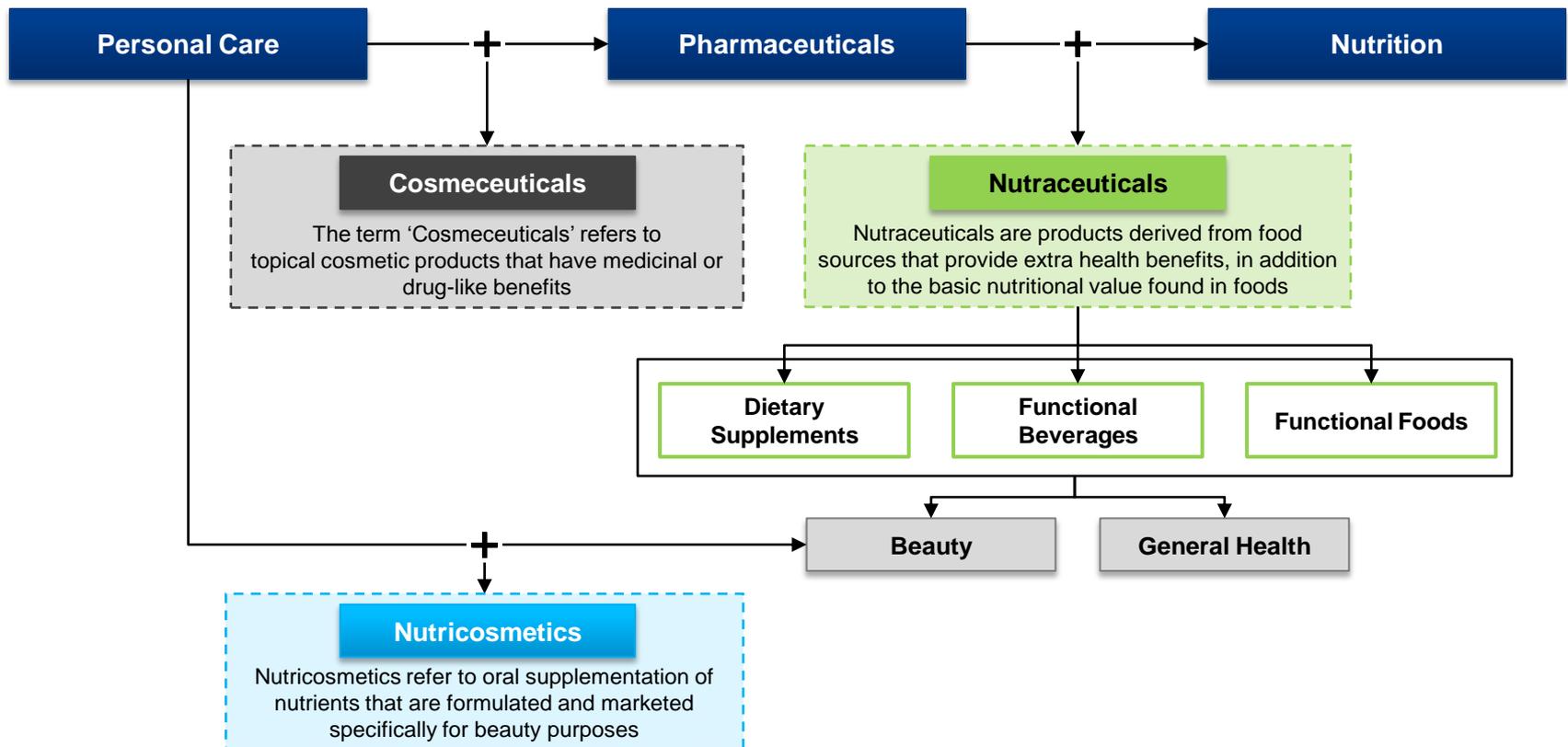
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# Cosmeceuticals, Nutraceuticals and Nutricosmetics are among the fastest growing segments in the health & wellness industry

## Overview of the Health & Wellness Market

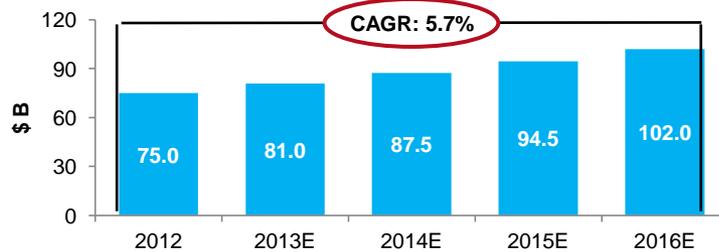
- In the last 15 years, the pharmaceutical, personal care, and nutritional industries have converged, to form new industry segments: Nutraceuticals, Cosmeceuticals and Nutricosmetics
- The Nutraceutical, Cosmeceutical and Nutricosmetic segments have witnessed increasing innovation and consumer acceptance as consumers increasingly seek out new ways to maintain health and youth



# The Nutraceutical segment is the most mature of the three hybrid segments

## Market Dynamics

Market size and growth (2012–2016E)



### Mature / large markets

- North America has the highest market share for Nutraceutical products, primarily supported by the health conscious consumer segment

### Growth markets

- Asia Pacific (including Japan) is expected to have the second largest market share by 2017

Nutraceuticals command an average 25% profit margin, compared to single digit margins in other food products, thus making this a lucrative segment for food as well as pharmaceutical companies

## Key players



- In 2011, Nestlé created two new divisions: Nestlé Institute of Health Sciences and Nestlé Health Science S.A.



- It later acquired the infant nutrition division of Pfizer for \$11.9 billion



- The French food company Danone acquired Complian UK, which specializes in nutritional supplements, energy drinks and meal replacements



- Pfizer bought Ferrosan Consumer Health, a Danish company that markets supplements in the emerging markets of Russia and Eastern Europe

**“Estimates of 30–40% of the U.S. population, particularly women, want more autonomy in controlling their health and they are taking it, particularly through eating habits”**

— Nancy M. Childs, Ph.D., Department of Food Marketing

## Drivers and Inhibitors

- Health concerns of aging populations across the developed world (baby boomers etc.)
- Rising incomes and increased health consciousness across the emerging economies
- Changing consumer preferences and increased awareness among consumers about links between nutrition and health

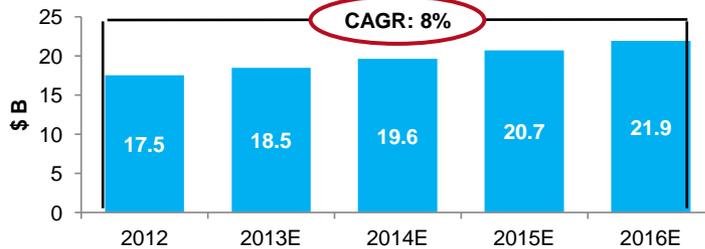
- Regulatory uncertainty, since terms like Nutraceuticals are not recognized by the FDA etc.
- Customer distrust, particularly for pharmaceutical compounds
- Price sensitivity of customers, since R&D expenditure tend to make Nutraceutical foods is more than traditional foods

The Nutraceuticals markets have started encroaching on the “medical foods” market, that was previously the domain of pharmaceutical companies. The opportunity is even more attractive when one considers that FDA requires no premarket approval for medical foods

# Cosmeceuticals will continue to experience high growth, driven by technology advancements and emergence of new ingredients

## Market Dynamics

Market size and growth (2012–2016E)



### Mature / large markets

- Demand for Cosmeceuticals continues to increase in markets such as U.S and Europe

### Growth markets

- Demand is further boosted by increasing urbanization and affordability in emerging markets such as Latin America, China and India

The Cosmeceuticals segment is the fastest growing segment in the personal care industry

## Key players



- Allergan acquired SkinMedica's operations in 2012 in order to gain a stronger foothold in the Cosmeceutical market



- Hydroxatone is a popular Cosmeceutical brand with mainly anti-aging products
- It operates through the 'direct to consumer' model

L'ORÉAL

CHERYL'S  
COSMECEUTICALS  
The Skin Care Apocryph

- L'Oreal's Dermo-Expertise and Lancome are top-selling anti aging and skin nourishment brands
- L'Oreal acquired India based Cheryl Cosmeceuticals in September 2013 to tap into new distribution channels for cosmeceuticals i.e. spas and salons

**"It's becoming more and more clear that baby boomers aren't the only consumers seeking Cosmeceutical solutions. I have never been more inundated by younger clientele—17- to 20-year-olds—looking for clear, ageless skin. They want to take care of it now."**

— Scott-Vincent Borba, founder of Borba Skin Care Innovation

## Drivers and Inhibitors

- Aging populations across the developed world are demanding more effective beauty products that meet specific beauty needs
- Advances in fields such as nanotechnology are also driving innovations in Cosmeceutical science and products
- Increasing incomes and willingness to try new products is driving growth in emerging markets

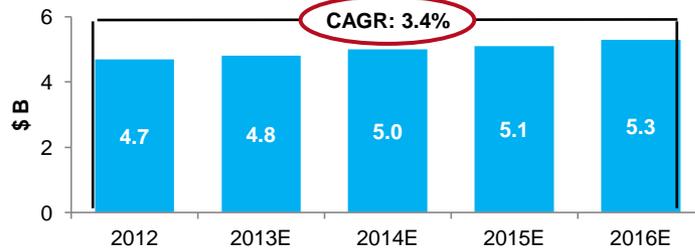
- Competition is expected to increase due to the emergence of alternative treatments, market penetration of private label Cosmeceutical brands and the rapid commoditization of innovative ingredients
- Stricter legislation on claims and ingredients combined with a consumer mindset of cautious spending may inhibit growth

Multinationals such as Procter & Gamble are producing "masstige" Cosmeceutical products to ensure consumers with low disposable incomes in mature western countries and promising emerging economies can buy into the trend. E.g., Procter & Gamble's Olay Regenerist and Definity brands offer the same premium image and claims of rejuvenation at a more attractive price point than alternatives

# The Nutricosmetic market is growing due to increased consumer consciousness about total wellness

## Market Dynamics

Market size and growth (2012–2016E)



### Mature / large markets

- Europe driven by anti-aging concerns constitutes the largest market worldwide
- Japan constitutes the largest individual market

### Growth markets

- The U.S. market, although still nascent, displays great potential and is forecast to expand at a CAGR of over 14% through 2017

Nutricosmetics are used by an estimated 1.8m women worldwide (2009) and represent less than 1% of all beauty launches

## Key players

**FUNCTIONALAB**  
ADVANCED NUTRICOSMETICS & COSMETICALS

- Functionalab is a premium brand of science-based Nutricosmetics
- It manufactures and markets its products based on the philosophy of promoting both inner and outer beauty

**IMEDEEN**  
BEAUTY BY NATURE WITH



- Ferrosan's Imedeem brand was the first Nutricosmetic brand, introduced in Europe and is now established globally
- Pfizer's acquisition of Ferrosan has strengthened the Imedeem brand from education and research perspectives



- Nestlé has developed a beauty bar for its Kit Kat brand in collaboration with the Tokyo Beauty Clinic (Japan's most popular beauty salon chains)
- Nestlé also sells collagen-rich coffee in Malaysia

**"Asia is regarded as the most important region for ingestible beauty, driven by consumer demand and also because the regulatory system there is more sophisticated than in Europe, Japan is still the leading market for launch activity, however NPD in China is growing rapidly and Brazil's NPD also doubled last year."<sup>(A)</sup>**  
— Nica Lewis, Mintel Beauty Innovation

## Drivers and Inhibitors

- Trend of "beauty from within" is gaining acceptance among consumers, particularly among aging populations in developed economies
- Nutricosmetics are also gaining quick acceptance among the male and young female demographics

- The introduction of legislative procedures in Europe and the U.S. could prove problematic, making the introduction of new product innovations in these markets more difficult
- Consumers, particularly in developed countries, remain skeptical of Nutricosmetic product claims – proving efficacy, raising awareness and educating customers are challenges

Restaurants are also experimenting with the Nutricosmetics. A pan-Asian restaurant in London has just launched a collagen menu. Dishes like 'Collagen Inside Out Dumpling' and 'Collagen and Seaweed Salad' are a part of the menu

Note:  
(A) NPD refers to Nutrients Per Day

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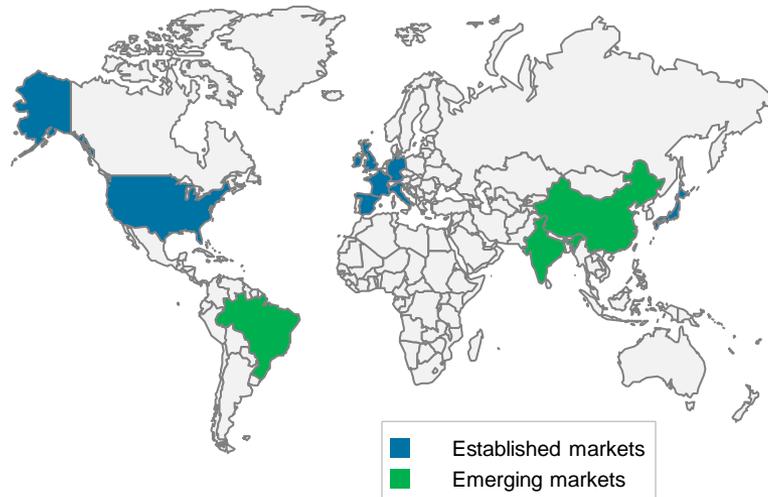
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**Appendix**

# While developed countries support the largest markets for the three segments, emerging economies appear the most promising

U.S.	
Nutraceuticals	\$59 B (2011)
Cosmeceuticals	\$9.7 B (2012)

- Primary drivers: baby boomer generation and their evolving needs
- Nutraceuticals market growth: 6% CAGR till 2017 (est.)
- Cosmeceuticals market growth: 4% (2011)
- Nutricosmetics market growth: 14.8% CAGR till 2017 (est.)
- Nutricosmetics market is still nascent (2% of global beauty supplements market)
- Market restricted by regulations and consumer skepticism



Western Europe (UK, France, Germany, Spain, Italy)	
Nutraceuticals	\$35B (2010)
Cosmeceuticals	\$15.5B (2012)

- Nutraceuticals expected to grow at 5.7% till 2015
- High focus in Germany on food R&D and innovation
- Accounts for ~65% of the global Cosmeceuticals market
- Primary drivers: aging population, growing desire for awareness of food content, preference for natural foods

Brazil	
Nutricosmetics	\$70 M (2011)
Cosmeceuticals	

- Food supplement market growth: 22% in 2011 to \$517 M
- Fortified and functional food market growth: 11% in 2010 to \$6.2 B
- Vitamins and dietary supplements market growth: 12% in 2011 to \$1.3 B
- Cosmeceuticals market growth: 15%
- Brazil is a source for agricultural based raw Nutraceutical ingredients (e.g., soy protein, vegetable oils)
- Primary drivers: rising disposable incomes; extensive use of cosmetics

India	
Nutraceuticals	\$2B (2010)
Cosmeceuticals	

- Nutraceutical market growth: 16% CAGR till 2018
- Nutricosmetics market growth: 12% CAGR till 2014
- The market for dietary supplements is small (per capita spend on dietary supplements is less than \$0.40)
- India is emerging as a major hub for Cosmeceutical clinical trials
- Primary drivers: rising disposable incomes; cultural preference for natural foods

Japan	
Nutraceuticals	\$34 B (2012)
Nutricosmetics	\$1.3B (2012)

- Largest single Nutricosmetic market, and second largest market for Nutraceuticals (after the U.S.)
- Well formulated FOSHU legislation has extended growth momentum in Nutricosmetics
- Leads innovation in and development of products and trends in Cosmeceuticals and Nutricosmetics
- Innovator in dietary supplements and natural Nutraceuticals

China	
Nutraceuticals	\$15B (2012)
Nutricosmetics	\$813M (2010)

- Largest Nutricosmetic market after Japan, and expected to overtake it in 2015
- Expected to be ~40% of the Asia Pacific market in Nutraceuticals in 2017
- Cosmeceutical market growth: >10%
- Cosmeceuticals account for 20%–40% of the Chinese cosmetics market
- Primary drivers: rising disposable incomes, cultural acceptance of ingested beauty products

# Organic and natural food nutrition and the use of super fruits are some of the trends observed in these segments

Key Trends	Popular Innovations	Examples
<p><b>Focus on energy and satiety</b></p>	<ul style="list-style-type: none"> <li>■ Nutrition bars with high fiber content with superfruit / wholegrain ingredients or energy boosting beverages are increasingly popular in the marketplace e.g., Wheaties Fuel Energy Bars, ZICO Coconut Water</li> <li>■ Satiety is an important concern for consumers wanting to stay fuller for longer e.g., Kashi GoLean Chewy Bars</li> <li>■ Products like Ubiquinol P30 powder sticks claim to provide a “ready to use” power boost</li> </ul>	
<p><b>‘Real food’ nutrition</b></p>	<ul style="list-style-type: none"> <li>■ There is a growing trend of products that have fewer unhealthy ingredients like salt, fat and sugar, or are also free of trigger substances such as gluten, wheat, dairy, etc.</li> <li>■ Beverages such as Komplete Ultimate Shakes – a range of dairy-free, gluten-free and soy-free ready-to-drink (RTD) shakes made with organic ingredients</li> <li>■ Snacks such as Snikiddy’s line of all-natural snacks made from simple, real-food ingredients including kale, sweet potatoes and shitake mushrooms</li> </ul>	
<p><b>Complete beauty and wellness</b></p>	<ul style="list-style-type: none"> <li>■ Companies are increasingly launching products that improve skin or reduce signs of aging               <ul style="list-style-type: none"> <li>– Nestlé’s Collagen Coffee is marketed as a low-fat alternative to normal coffee, it is also said to be beneficial to skin</li> <li>– Sunlover is a nutricosmetic drink which is said to promote tanning and better skin health</li> </ul> </li> <li>■ Consumers are demanding beauty products that are made using organic and natural foods               <ul style="list-style-type: none"> <li>– YouthH2O, a caffeine-free and sugar-free Nutraceutical comprising of potent South American organic superfoods is said to offer benefits such as weight loss, immunity protection and collagen production</li> <li>– Wakaya Perfection’s product range, all containing organic ginger, is said to offer therapeutic benefits, such as aiding digestion and soothing sore muscles</li> </ul> </li> </ul>	
<p><b>Demand for functional beverages</b></p>	<ul style="list-style-type: none"> <li>■ Beverages are popular among consumers because they provide an immediate benefit e.g., energy. Carbonated and non-carbonated energy drinks and shots continue to dominate the functional beverage category</li> <li>■ There has been a dramatic increase in options and availability of drinks containing superfruits and vegetables</li> <li>■ Grains, spices, and other botanicals are entering the healthy beverage sector while healthy hybrids such as green tea with lemonade are also gaining popularity</li> </ul>	

# Manufacturers are increasingly undertaking extensive research to deliver products that reduce health risks

Key Trends	Popular Innovations	Examples
<b>Lifestyle and chronic disease management</b>	<ul style="list-style-type: none"> <li>Concern over heart related risk factors is growing and products positioned to address issues such as high cholesterol, insulin resistance, blood sugar control / diabetes management, and metabolic syndrome represent large mass market opportunities</li> <li>Some examples of popular products include: cholesterol friendly spreads such as Benecol and Naked and Odwalla juice-soy-protein blends that contain antioxidants and phytochemicals to reduce cancer risk and promote a healthy heart</li> <li>Heart-healthy products for children are an untapped functional segment</li> </ul>	
<b>Mood Support</b>	<ul style="list-style-type: none"> <li>Omega 3 supplements are said to play an important role in reducing both anxiety and inflammation</li> <li>Herbal extracts of Ginkgo biloba leaves and Panax ginseng roots used as part of traditional Chinese treatments are also being considered by manufacturers to treat moderate depression</li> <li>Ezaki Glico's GABA chocolates in Japan and Function Water's Brainiac in the U.S. have a niche position among mood foods</li> <li>Relaxation supplements or drinks are an emerging opportunity in this area</li> </ul>	
<b>Weight management</b>	<ul style="list-style-type: none"> <li>Nu Skin is launching ageLOC TR90, a body shaping and anti aging system in late 2013; the company is expecting strong sales (approx. \$380 to \$400 million) of this product as it expands its presence in the growing weight management category</li> <li>Chai Hemp Mylk manufactured by Ritual Wellness is a protein-rich drink said to deliver omega 3 to omega 6 fats and marketed as a meal replacement beverage</li> <li>Licorice root extract in pellet and oil form is known to help fight visceral fat</li> </ul>	
<b>Daily health</b>	<ul style="list-style-type: none"> <li>Food, beverage, and dietary supplement marketers are exploring natural solutions to common aches and ailments</li> <li>Digestive health and joint health remain highly sought-after Nutraceutical benefits</li> <li>Consumers are also opting for products with ingredients such as echinacea, garlic, capsicum that boost immunity</li> <li>Allergen-free products are also sought after by consumers</li> </ul>	

# Advances in food and medical science as well as changing consumer demand and demographics are fueling growth in this market

Emerging Opportunities in the Global Health & Wellness Market		
Top Opportunity		Description
By demography	'Over 65' age group	<ul style="list-style-type: none"> <li>■ Aging baby boomers are expected to influence demand for health &amp; wellness products with the over-65 age segment expected to emerge as the largest consumer category</li> <li>■ The over-65 segment has been instrumental in driving the growth of products that address their main health concerns; namely heart, digestive and joint issues</li> </ul>
By benefit	Energy and Disease Prevention	<ul style="list-style-type: none"> <li>■ Energy is the top benefit demanded by consumers of functional foods; products with an immediate effect are likely to be more successful than products with more long term benefits</li> <li>■ This is also driving the growth of products which combine topicals and ingestible solutions e.g., combining an anti-wrinkle cream that has immediate visible effect with anti-aging pills</li> <li>■ Research on diseases that are expected to grow in terms of prevalence, and their diagnosis or treatment will provide opportunities for development of new products and solutions e.g., oncology, antirheumatics, anti-diabetics, antihypertensives, and anti-virals</li> </ul>
By product type	Beverages & Dairy	<ul style="list-style-type: none"> <li>■ Globally, beverages are forecasted to be the fastest growing functional food segment and are set to assume the largest market share (56% in 2013)</li> <li>■ The popularity of beverages can be attributed to their convenience and versatility, as well as manufacturers' ability to package such products innovatively</li> <li>■ The dairy segment is also seen to be growing with popular dairy brands such as Danone focusing on "feel the benefit," convenience, and good taste</li> </ul>
By product composition	Superfruits & grains	<ul style="list-style-type: none"> <li>■ Consumers are more likely to buy products that contain products that contain organic or traditional "super ingredients." Superfruits in particular have seen applications ranging from hair and skin care to food and drink. E.g., Acai Anti-Frizz shampoo, Superfruit Fusion cereal bars</li> <li>■ Companies are including fibers and probiotics in beverages and baked goods to improve energy levels while providing better protection against disease and infection e.g., Grupo Pascual produces milk drinks containing prebiotic fiber from chicory</li> </ul>

# The regulatory environment is evolving as agencies strive to establish product specific regulatory standards to ensure consumer safety

## Nutraceuticals

- Currently, regulations around Nutraceuticals are mainly focused on product safety and labeling
- However, the industry is expected to experience more stringent regulation in the future due to increasing concerns around consumer safety and unsubstantiated claims of product efficacy
  - In the U.S., Nutraceuticals are monitored as “dietary supplements” and not pharmaceutical drugs. Recalls of nutritional supplements due to the use of unapproved ingredients have increased in recent years
  - Emerging economies such as India and China are yet to establish regulatory frameworks to monitor Nutraceutical products
  - Improved self-policing and harmonized international standards and policies are required to prevent a regulatory backlash that could see Nutraceuticals regulated with the same rigor as pharmaceutical drugs

## Cosmeceuticals

- Barring any serious, widespread health safety concerns, the current regulatory structure of Cosmeceuticals is likely to remain in place while the industry continues to flourish mostly because of the lack of regulatory oversight
  - Internationally, the term “Cosmeceutical” is not legally recognized, hence most companies manufacture and market their products as cosmetics while avoiding costly and time consuming pre-approval processes by regulatory bodies
  - Regulatory bodies are becoming stricter about product claims by companies. For e.g., the FDA issued warning letters to Avon Products, Inc. and Lancôme USA, that the claims for their products are drug claims, requiring approval prior to marketing
  - Manufacturers should note the types of claims regulatory authorities are objecting to, and review their branding and promotional activities in line with these standards

## Nutricosmetics

- There is a lack of a clear and definitive regulatory structure for Nutricosmetic products in most countries, except for Japan
  - Japan has an established system for approving Nutricosmetic and functional products. The ‘Foods for Specific Health Use’ or FOSHU legislation has encouraged the rapid introduction of Nutricosmetics products in Japan
  - The likelihood of introducing similar legislative procedures in Europe and the U.S. could prove problematic given the intersection of both food and medicinal law. This will make the introduction of product innovations in these regions more challenging
  - Worldwide, use of untested ingredients backed by deceptive product claims, is the most important concern that needs to be addressed by the establishment of effective regulatory mechanisms

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# Entry into these segments requires the careful convergence of critical competencies across the pharma, nutrition and cosmetic industries

## Nutraceuticals

- Depending on product positioning, Nutraceuticals can be sold through traditional pharma and traditional food channels

Competency Category	Pharma	Nutrition	Cosmetics
Product Development	✓	✓	
Regulatory Know-how	✓		
Marketing		✓	
Distribution	✓	✓	

- Nutraceuticals involve larger R&D budgets and longer development periods than traditional foods
- From the market end, customers still expect to see variety in flavors, offerings etc.

## Cosmeceuticals

- Strong brand recognition and positioning beauty as an integral part of the overall offering
- For example, Innéov Fermeté was initially marketed on the basis of its cancer-fighting properties; however, it is now promoted as a beauty / skin enhancer

Competency Category	Pharma	Nutrition	Cosmetics
Product Development	✓		✓
Regulatory Know-how	✓		
Marketing			✓
Distribution			✓

- While R&D in both the cosmetic and pharma industries contribute to product development, the Cosmeceutical segment is also benefiting from advances in fields such as nanotechnology

## Nutricosmetics

- Collaboration between cosmetic, food and pharma R&D in product development is critical for product acceptance
- For e.g., since there is a time lag before consumers can see benefits of ingestible Nutricosmetics, some manufacturers combine these products with faster acting topicals

Competency Category	Pharma	Nutrition	Cosmetics
Product Development	✓	✓	✓
Regulatory Know-how	✓		
Marketing			✓
Distribution	✓	✓	✓

- Growing regulatory oversight has made regulatory know-how an indispensable competency
- For e.g., the EU's regulatory body reduced the number of approved health claims by food products to 222 from over 1,700

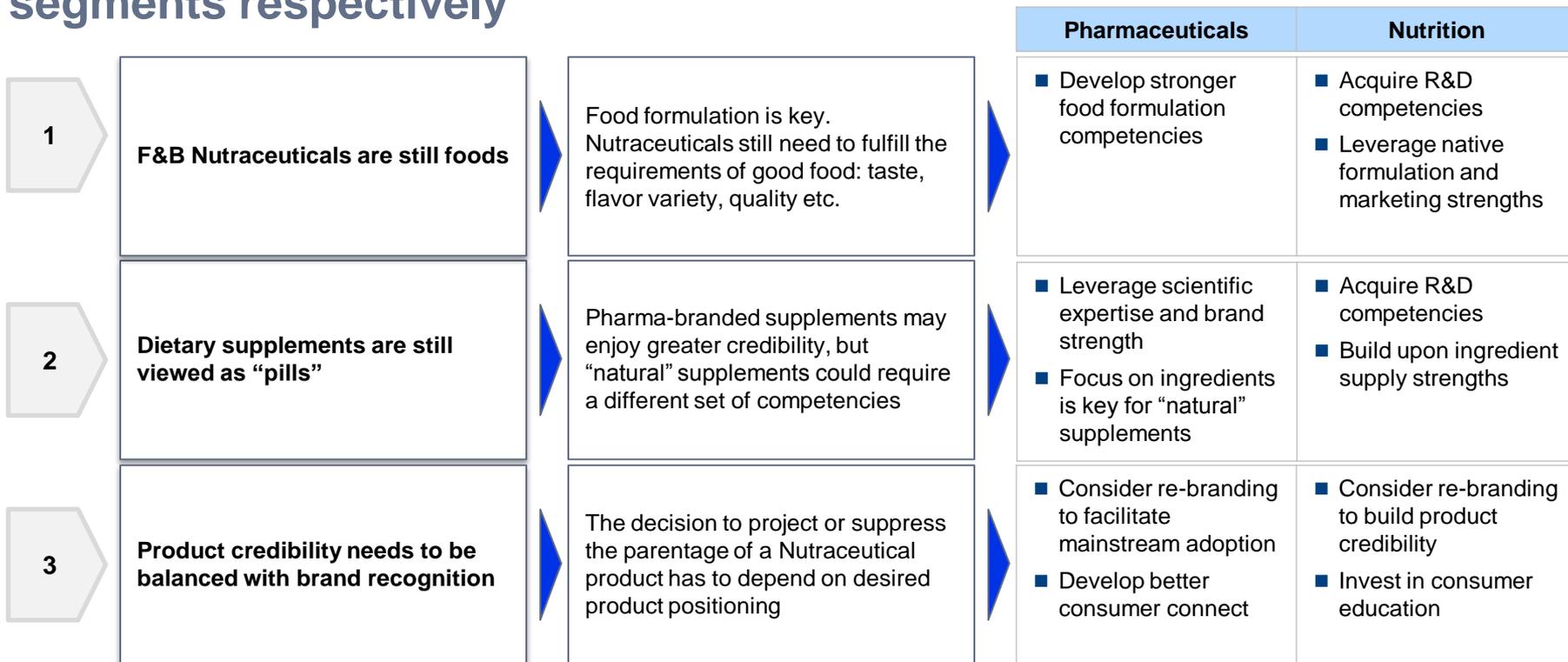
# While some players are well suited for developing these products on their own, others are gaining competencies through acquisitions and joint ventures

- Increasing competition has led to industry consolidation and an exciting M&A environment. Many companies have achieved successful organic growth through strategic collaborations and partnerships
- High growth rates and lucrative margins are also expected to attract new entrants from the biotechnology, food and healthcare industries

## Growth Strategies

	Joint venture	Acquisition	Licenses & Partnerships
Involving ingredient suppliers	<ul style="list-style-type: none"> <li>■ Coca-Cola formed a joint venture with Nestlé to create Enviga, a negative calorie drink (Nestlé supplied the Nutraceutical)</li> </ul>	<ul style="list-style-type: none"> <li>■ Private equity firm Gilde acquired DSM Bakery Ingredients, a Nutraceutical supplier</li> </ul>	<ul style="list-style-type: none"> <li>■ Kraft Foods formed a research and licensing partnership with Medisyn Technologies to discover effective bioactive ingredients for use in functional foods</li> </ul>
Involving food & beverage manufacturers	<ul style="list-style-type: none"> <li>■ Tata Global Beverages is planning to enter the functional beverages segment by introducing the Activate brand from its joint venture (2010) with the US-based Activate, a performance beverage and bottled water firm</li> </ul>	<ul style="list-style-type: none"> <li>■ Danone acquired Britain-based Complian Foods – makers of powdered energy drinks and meal replacements, and Medical Nutrition – producer of medical food to treat malnutrition</li> </ul>	<ul style="list-style-type: none"> <li>■ Nestlé is investing in a research program through a licensing agreement with U.S.-based biotech company VitaCyte LLC. This program will investigate the causes of metabolic diseases</li> </ul>
Involving pharmaceutical companies	<ul style="list-style-type: none"> <li>■ Healthcare group Novartis Consumer Health formed a joint venture with Quaker Oats Company to manufacture functional foods</li> </ul>	<ul style="list-style-type: none"> <li>■ GlaxoSmithKline acquired Maxinutrition in 2010, a leading sports nutrition company that manufactures protein-enhanced functional nutrition products</li> </ul>	<ul style="list-style-type: none"> <li>■ Kellogg licensed MorteK's DHA Omega 3 technology to create Live Bright Bran health bars</li> </ul>
Involving personal care companies	<ul style="list-style-type: none"> <li>■ Inneov is a successful joint venture between Nestlé and L'Oréal providing nutricosmetic products. It combines Nestlé's research experience in nutrition with the dermatological and cosmetic research experience of L'Oréal</li> </ul>	<ul style="list-style-type: none"> <li>■ Nu Skin acquired biotech company Nox Technologies in November 2012, in order to enhance Nu Skin's pipeline of scientifically validated anti-aging solutions for health, beauty and wellness</li> </ul>	<ul style="list-style-type: none"> <li>■ Senté has entered a strategic partnership with dermatology conglomerate Scripps Health to sell and distribute Senté Dermal Repair Cream to patients in Scripps locations throughout Southern California</li> </ul>

# Consumer perceptions about Nutraceuticals have given pharma and F&B companies advantages in the supplements and functional foods segments respectively



- General Mills' Fiber One cereal dominates the highly lucrative fiber-enriched foods market, primarily because it has managed to make fiber “taste delicious”
- Fiber One has over 75 million customers and 11.8% of the 'low sugar' category of breakfast foods



- FMC has acquired several ingredient and specialty nutrition ingredient manufacturers as part of its Nutraceuticals strategy
- Acquisitions have included South Pole Biogroup and Epax AS, manufacturers of health ingredients such as Omega 3

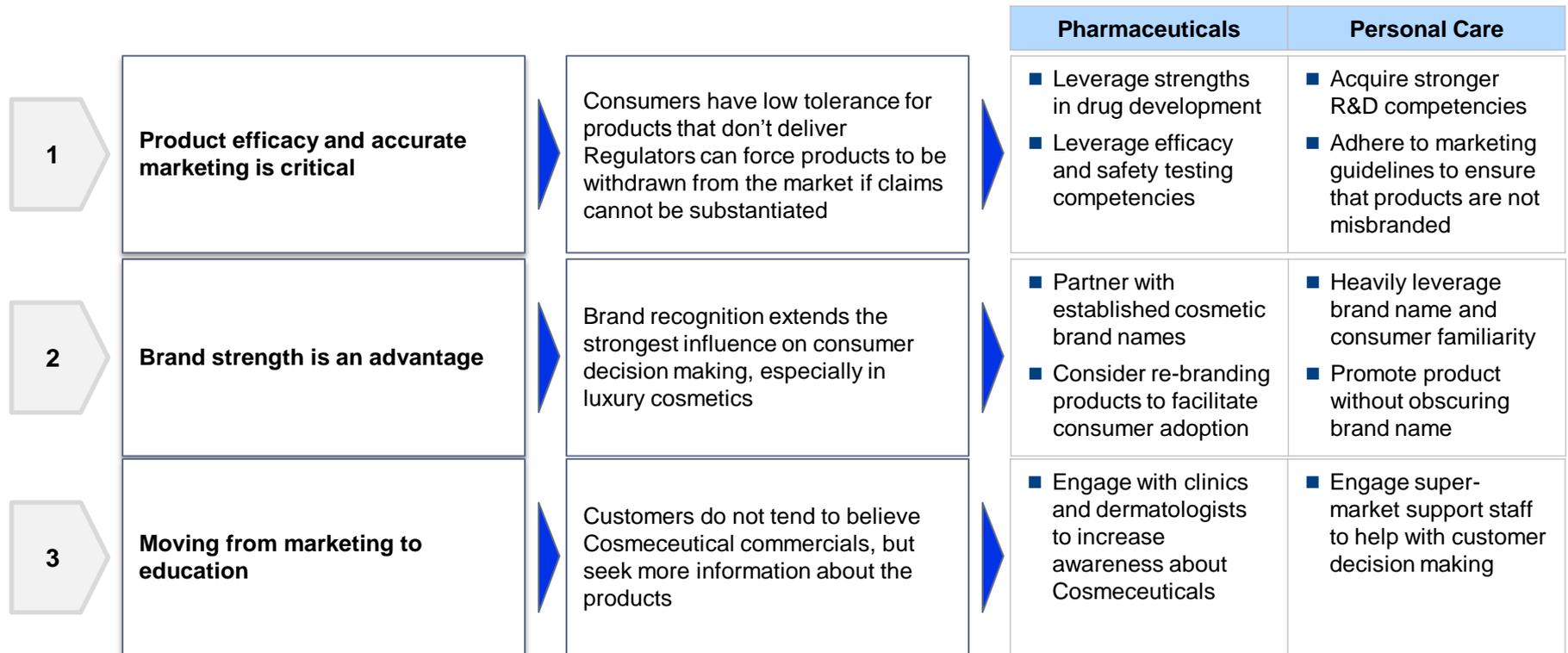


- In order to build brand credibility in the all-natural energy drink category, Nestlé collaborated with Jamba Juices to launch Nestlé Jamba Energy drinks
- Nestlé benefited from Jamba's strong brand name with the young, female target audience and in the energy drink sector



- Procter & Gamble's acquisition of New Chapter Natural Supplements encountered significant customer backlash
- Customers protested the take-over of “natural” New Chapter by “chemical” P&G, underlining the importance of branding

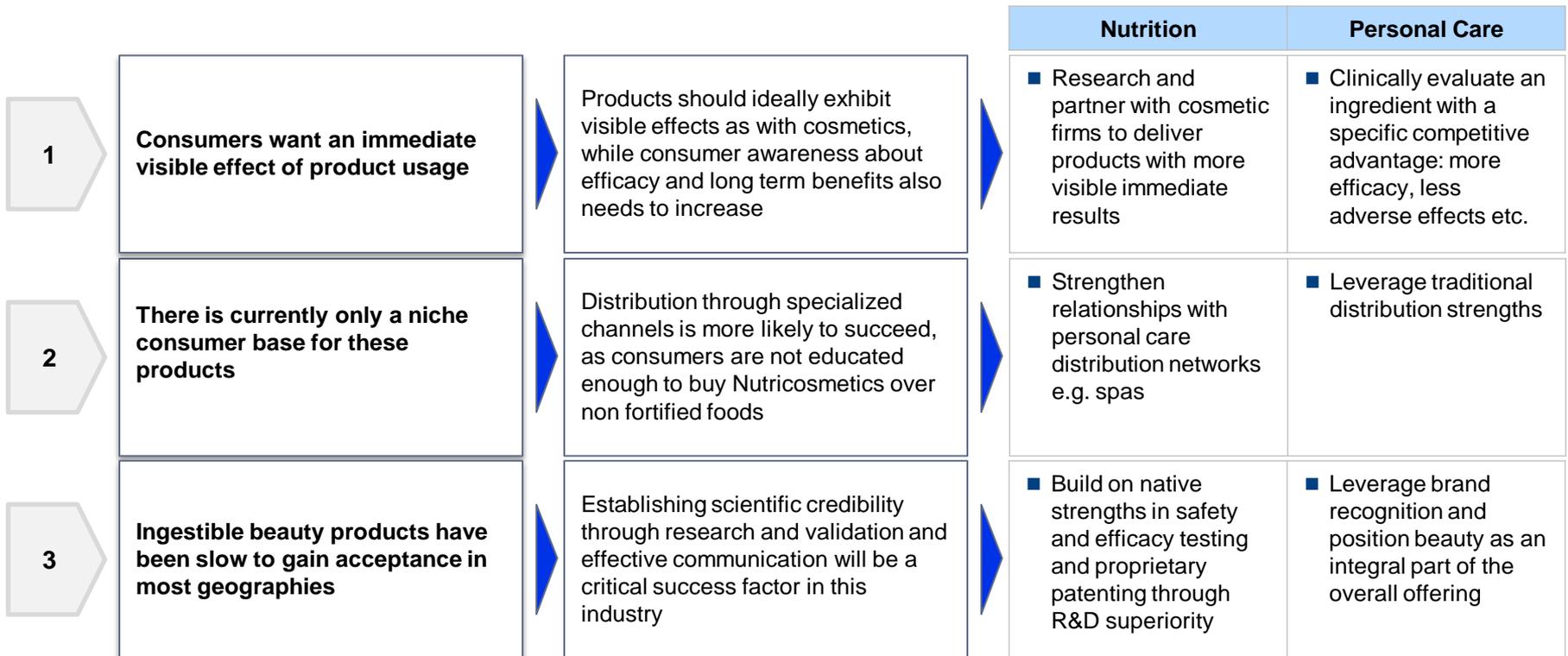
# Cosmeceuticals are primarily driven by the core competencies of the personal care industry, with pharma playing a behind-the-scenes role



	<ul style="list-style-type: none"> <li>■ In 2012, the U.S. FDA issued warning letters to Avon objecting to promotional claims made in connection with their Cosmeceutical products</li> <li>■ Avon eventually withdrew the product from its website</li> </ul>
	<ul style="list-style-type: none"> <li>■ The 2013 Customer Loyalty Engagement Index found that Clinique, Lancome and Chanel evoked the strongest loyalty from customers</li> <li>■ The study indicated brand expectations have increased, indicating that big brands met customer expectations better</li> </ul>

	<ul style="list-style-type: none"> <li>■ In Brazil, L'Oréal promotes the Innéov brand by visiting over 5,000 dermatologist clinics every month</li> <li>■ L'Oréal Paris has developed a 2,500 sq. ft. beauty department to create an environment that attracts consumers into the area and helps them make decisions on purchases</li> <li>■ L'Oréal also provides online tips on the Kroger supermarket website to help customers decide on the right products for them</li> </ul>
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# The success of Nutricosmetic brands depends on the ability to develop credibility about product efficacy and effective branding



	<ul style="list-style-type: none"> <li>Innéov Fermeté was initially marketed on the basis of its cancer-fighting properties; however, it is now promoted as a beauty / skin health enhancer</li> </ul>
	<ul style="list-style-type: none"> <li>GliSODin Skin Nutrients is manufactured by Isocell, one of the top laboratories in anti-aging research and it is available exclusively through dermatologists, plastic surgeons and medical spas</li> </ul>

	<ul style="list-style-type: none"> <li>Nutrikosm has developed a range of Nutricosmetics product packs that combine the joint application of a cosmetic external with a Nutricosmetic, offering an immediate effect</li> </ul>
	<ul style="list-style-type: none"> <li>Danone's beauty yoghurt Essensis was withdrawn from the market following low consumer demand due to lack of scientific credibility and consumer awareness</li> <li>The mass market distribution strategy failed due to premium pricing compared to cheaper alternatives</li> </ul>

# Firms that wish to enter these segments or augment product offerings need to consider potential synergies and strategic fit

## Growth Routes

## Examples

1

### Pharmaceuticals

- **Growth area:** Vitamins, minerals and supplements
  - Grow their product base by leveraging scientific credibility while avoiding costly pre-approval processes of regulatory bodies
  - Fits in well with the scientific resources, manufacturing capabilities and regulatory expertise of pharmaceutical companies

- Although the global leader in the VMS category with Centrum brand of supplements, Pfizer is looking to strengthen this segment with a acquisitions such as Ferrosan Consumer Health
  - This acquisition gives the company access to a portfolio of dietary supplements and Cosmeceutical products in Nordic markets (multivitamins, probiotics, Omega-3)

2

### Food & Beverage

- **Growth area:** Functional foods and beverages
  - F&B companies have established distribution networks and the right marketing and brand expertise along with a strong ability to compete on food formulation
  - It is an attractive revenue opportunity as functional products have higher margins compared to traditional products

- French food company Danone is undertaking strategic acquisitions in the functional foods and beverages arena
  - Some recent acquisitions include those of Britain-based Complan Foods, makers of powdered energy drinks and meal replacements, and Medical Nutrition, which produces medical food to treat malnutrition

3

### Personal Care

- **Growth area:** Cosmeceuticals and Nutricosmetics
  - Strategic partnerships with ingredient suppliers will be required to develop successful products
  - These companies are better poised to address the positioning, channels of distribution and creative packaging required for marketing of Nutricosmetics

- Japanese ingredients player Ajinomoto formed a JV with Indonesia-based chemical company PT Lauatan to produce a range of amino acids for personal care products
- Innéov is a successful joint venture between Nestlé and L'Oréal, offering health benefits in the form of draining and toning, anti-aging, anti-hair loss for men, sun tanning, anti-cellulite and dry skin products

# A review of segment activity indicates that M&A is driven by the need to acquire a platform<sup>(A)</sup>, enhance a portfolio or enter new markets

Reason	Examples
 <p><b>Platform Acquisition</b></p>	<p><b>P&amp;G's acquisition of New Chapter Supplements, 2012:</b></p> <ul style="list-style-type: none"> <li>■ New Chapter 2011 sales were \$110 million; deal value possibly about \$134 million<sup>(B)</sup></li> <li>■ Primary motivation was to enter the vitamins, minerals and supplements (VMS) arena</li> </ul> <p><b>L'Oreal's acquisition of Pacific Bioscience Laboratories, 2011:</b></p> <ul style="list-style-type: none"> <li>■ Pacific Bioscience Laboratories' Clarisonic net sales were \$105 million (2010); deal value undisclosed</li> <li>■ L'Oreal collaborated with Pacific Biosciences for over 10 years prior to acquiring it</li> <li>■ Primary motivation was to acquire strategic positions in the quickly emerging cosmetic devices category</li> </ul>
 <p><b>Product Portfolio Enhancement</b></p>	<p><b>GlaxoSmithKline's acquisition of Maxinutrition, 2010:</b></p> <ul style="list-style-type: none"> <li>■ Purchased for \$255 million at more than 34x EBITDA; Maxinutrition 2010 sales were \$56 million</li> <li>■ Primary motivation was entering into protein-based sports nutrition market to complement their carbohydrates nutrition (Lucozade) and their calcium micronutrients (Horlicks) businesses</li> <li>■ Maxinutrition was the largest sports nutrition company in Europe</li> </ul> <p><b>Nuskin acquisition of Nox technologies, 2012:</b></p> <ul style="list-style-type: none"> <li>■ Purchased for \$12.5 million, deal value undisclosed</li> <li>■ Primary motivation is Nox's technology and patents, particularly in the anti-aging sphere such as arNox, an age-related protein that is capable of superoxide generation</li> </ul>
 <p><b>Strategic/ Distribution Expansion</b></p>	<p><b>Nestle acquisition of Pfizer Nutrition, 2012:</b></p> <ul style="list-style-type: none"> <li>■ Purchased for \$11.85 billion at 19.8x EBITDA; Pfizer Nutrition 2012 sales estimated at \$2.4 billion</li> <li>■ Primary motivation was access to China infant nutrition market, where Nestlé was ranked eighth (behind Danone and Mead Johnson) with a 2.3% share in the baby formula market</li> </ul> <p><b>Ascendis Health acquisition of Nimue Skin and Scientific Sports Nutrition, 2013:</b></p> <ul style="list-style-type: none"> <li>■ Purchased for \$12 million (120 million Rand)</li> <li>■ Primary motivation was access to Nimue's approx. 2,000 beauty salons across 24 countries, including Dubai, the UK, Sweden, New Zealand, Switzerland and Germany</li> </ul>

Notes:

(A) "Platform" refers to competencies across product development, process management and sales & marketing that a company requires to enter a certain market

(B) P&G's 2012 Annual Report notes: "Acquisitions used \$134 million of cash in 2012 primarily for the acquisition of New Chapter, a vitamins supplement business"

# Examples of companies with significant platforms, strong portfolios and well-developed distribution channels

Strong Platforms		<ul style="list-style-type: none"> <li>Has a portfolio of over 200 anti-aging products in personal care and nutritional supplements categories ; \$2.17 billion in sales (2012), presence in 53 markets world-wide, promising entry into ageLOC TR90 weight management supplement</li> <li>Has received numerous awards in various categories ranging from innovation to brand awareness</li> </ul>
		<ul style="list-style-type: none"> <li>Primarily in vitamins and supplements, but has significant R&amp;D in preventive medicine, anti-aging and sport performance</li> <li>Top-rated in the 'Catalog/Internet Brand' and 'CoQ10 Supplements' categories in the 2013 ConsumerLab.com Survey of Vitamin &amp; Supplement Users</li> </ul>
		<ul style="list-style-type: none"> <li>Manufacturer and distributor of face, body, and hair care products; wide range of natural products at accessible prices</li> <li>Received the Redbook MVP Award for Best Face Wash, NaturalHomeandGardens.com's 5 Best Natural Lip Balms</li> </ul>
Strong Product Portfolio		<ul style="list-style-type: none"> <li>Specializes in carbohydrate-containing molecules with applications both in prescription drug development as well as Cosmeceuticals; recent products include drug compound for diabetes, and cosmetic skin-lightening agent</li> <li>Ranked 2nd in TSX Venture's "Technology and Life Sciences" category, and named to the Top 50 in 2011</li> </ul>
		<ul style="list-style-type: none"> <li>Specializes in Single-nucleotide polymorphisms (SNP's); offerings include OTC genetic analytics services to tailor skin care regimens; range of personalized skincare serums will be available in 2013 at their London flagship store</li> <li>2013 European Frost &amp; Sullivan Award for New Product Innovation for its OTC instant DNA test kit that analyses skin profile and recommends the ideal anti-aging serum</li> </ul>
		<ul style="list-style-type: none"> <li>Specializes in research and development, production, marketing and sales of ingredients and actives for the cosmetic industry; ingredients include "ecocert" extracts and botanical and other extracts</li> <li>Best supplier 2012/13 ("Integra Pro" in chemicals category and "Destaque" in R &amp; D) by Hypermarcas, Brazil</li> </ul>
Strong Distribution Channels		<ul style="list-style-type: none"> <li>Specializes in Superoxide Dismutase (SOD) with wheat protein; Nutricosmetic products in anti-aging, skin brightening, detoxification and "pre/post" formulas that help prepaer and recover from cosmetic surgeries</li> <li>Products only available online and through wide network of authorized premium wellness spas, medical spas, dermatologists and cosmetic surgeons, mostly in North America</li> </ul>
		<ul style="list-style-type: none"> <li>Strong presence in anti-aging, hydration, hyper-pigmentation and general skin health;</li> <li>Products sold online and in 25 countries around the world through dermatologists, plastic surgeons, medical spas, select pharmacies, and premium spas</li> </ul>
		<ul style="list-style-type: none"> <li>India's largest spa chain with a focus on blending traditional Indian, Thai and other medicine with modern beauty products</li> <li>Caters to over 1500 clients each day at over 40 locations in India, with new locations in U.A.E and U.S.</li> </ul>

# Agenda

**Executive Summary**

**Convergence of the Pharmaceutical, Nutrition and Cosmetic Industries**

**Evolution of the Nutraceutical, Cosmeceutical and Nutricosmetic Segments**

**Success Factors and Market Drivers**

**Appendix**

# Competency Model

	Critical Competencies	Industries	Nutrition	
		Pharmaceuticals	Food	Ingredients
Product Development Competencies	Biotechnology Applications	H	L	H
	Regulatory Know-how	H	L	H
	Specialty Ingredients Sourcing, Manipulating	L	L	H
	Food Formulation	L	H	L
	Consumer Product Development	L	H	L
Process Management Competencies	Large R&D Budgets	H	L	M
	Strategic Collaborations, Partnerships	M	H	L
	Longer Product Development Lifecycles	H	L	M
	Incremental Product Development	L	H	M
Sales & Marketing Competencies	Pricing and segmentation	L	H	L
	Consumer Packaging, Marketing	L	H	L
	Wide retail and distribution channels	M	H	L

## Key Takeaway #1<sup>(A)</sup>

- **Nutraceuticals are still foods:** While the scientific/ R&D base can be provided by a pharma or specialized ingredient partner, the development of a product people will like to consume is a competency necessarily brought in by the food industry

## Key Takeaway #2

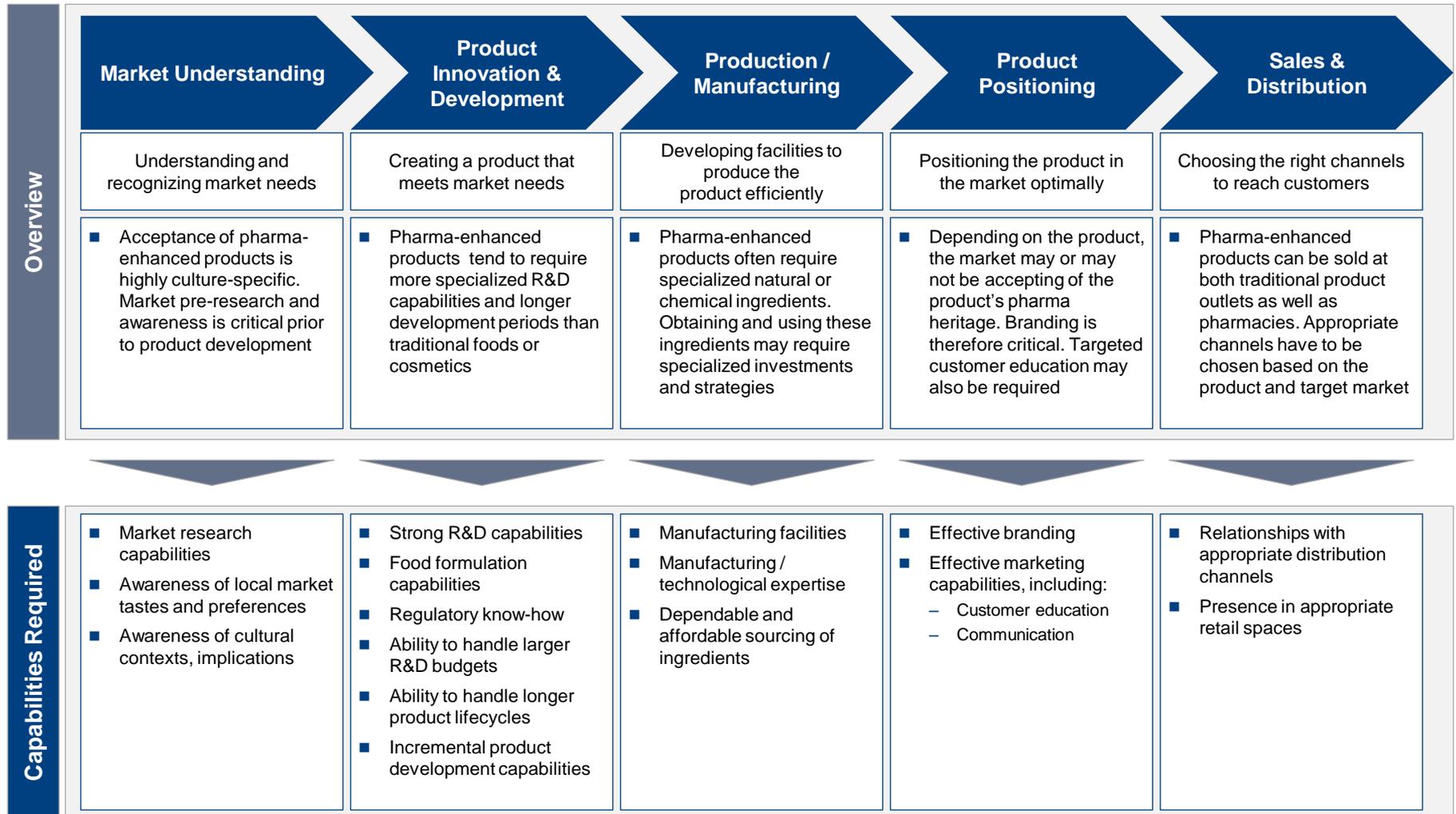
- **The lab-to-market journey is different:** Nutraceuticals involve larger R&D budgets and longer development periods than traditional foods. But from the market end, customers still expect to see similar variety in flavors, offerings etc.

## Key Takeaway #3<sup>(A)</sup>

- **Nutraceuticals are still foods!!:** Food item producers are most competent in pricing, marketing and distributing Nutraceuticals widely

Note:  
 (A) Specific Nutraceutical sub-segments such as Vitamins, Minerals and Supplements (VMS) are not positioned as foods, and require a different set of competencies

# Capabilities Model



# Recent Research Studies

## Stem Cell Research on 'Fountain of Youth', University of Sheffield and Olay July 2013

- Olay, which makes the "Regenerist" line of skin products funded a study at the University of Sheffield in the UK
- The study identified that the human skin has a population of 'sleeping' skin stem cells in the lowest layers which could be stimulated to divide and produce new, young skin

## Sources of Antioxidants, Hershey Centre for Health and Nutrition April 2013

- A study by this center compared cocoa products to the juices derived from fruits commonly considered superfruits. Researchers analysed them for antioxidant capacity, total polyphenol content and total flavonol content
- Among the various powders that were tested, cocoa powder was found to be the most concentrated source of polyphenol and flavonol. Similarly, dark chocolate was a significantly more concentrated source of antioxidants than the fruit juices
- According to researchers, these results could mean in the future that formulators will choose cocoa seed extracts over a fruit extract when it comes to delivering antioxidants to the skin

## Sleep Deprivation and Skin Aging, Study by Estee Lauder July 2013

- The clinical study demonstrated that poor sleepers had increased signs of skin aging and slower recovery from a variety of environmental stressors, such as disruption of the skin barrier or ultraviolet (UV) radiation; they were also more likely to be overweight as compared to good quality sleepers
- Poor sleepers also gave a worse assessment of their own skin and facial appearance than people who sleep well

## Moisturizers and Wrinkles, Long Term Study by Olay June 2010

- Olay funded an 8-year long study which was published in the British Journal of Dermatology found that moisturizers that help keep facial skin hydrated are an extremely effective way of reducing long term wrinkling

## Study on Skin Damage, Purdue University and Nu Skin September 2009

- A team of Purdue University scientists in collaboration with Utah-based Nu Skin identified an age-related enzyme, arNOX, which is linked to typical skin damage experienced in old age, such as discoloration or decreased elasticity; this type of damage also seems to generate free radicals, which increases as the body ages
- Discoveries such as these are expected to trigger future developments, resulting in new Cosmeceutical applications

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