Japanese Skin Care Cluster

Jinfeng Huang | Victor Stone | Tatsuhiko Sunouchi | Victoria Tan | Takeshi Tashiro

May 10, 2013
### Table of Contents

1. Japan Competitiveness
   - 1.1 Country Background
   - 1.2 Macroeconomic History
   - 1.3 Political Risks
   - 1.4 Abenomics
   - 1.5 Social Infrastructure and Demography
   - 1.6 Microeconomic Competitiveness and National Diamond Analysis
   - 1.7 National Cluster Mapping
   - 1.8 Industrial Cluster Policy Since 2001
2. Skin Care Industry Overview
   - 2.1 Competitions and Key Players
   - 2.2 Market Dynamics
   - 2.3 Cluster History
   - 2.4 Japanese Skin Care Cluster Analysis
3. Recommendation
   - 3.1 Lack of Active Cluster Development
   - 3.2 Emerging Markets Require Development of Workforce
   - 3.3 Untapped Opportunities in Japanese Science and Technology
   - 3.4 Unlocking the Innovative Strength of SME’s and Regional Skin Care Firms
   - 3.5 Managing the Major Shifts in Markets
4. Conclusions

Bibliography

---

We thank Prof. Michael Porter, Prof. Hirotaka Takeuchi, Prof. Christian Ketels, Prof. Niels Ketelhöhn, and Prof. Jorge Ramirez-Vallejo. We are especially grateful to the representatives of Shiseido, P&G, Japan Cosmetic Industry Association and Japan Cosmetic Suppliers Association. We also benefited from our friends as skin care products consumers. All opinions and remaining errors are strictly our own.
1. Japan Competitiveness

1.1 Country Background

Japan is an island nation in East Asia. Located in the Pacific Ocean, it lies to the east of the Sea of Japan. Japan is an archipelago of 6,852 islands. The total land size is 377,955 km² (62nd in the world). Japan has the world’s tenth-largest population, with over 127 million people. About 73 percent of Japan is forested, mountainous, and unsuitable for agricultural, industrial, or residential use. As a result, the habitable zones, mainly located in coastal areas, have extremely high population densities. Japan is one of the most densely populated countries in the world. Greater Tokyo Area, which includes the capital city of Tokyo and several surrounding prefectures, is the largest metropolitan area in the world, with over 30 million residents. Osaka area and Nagoya area are also highly ranked in the world, with nearly 19 million people and 9 million people respectively. This population size and population density enables the country to enjoy a relatively large domestic market and fierce competition of industry. This large domestic economy helped Japan develop many industries of its own, including the skin care industry.

However, from 2008, Japan’s population is declining. In fact, Japan is the fastest aging country in the world. In 2011, about one out of four people in Japan are above 65 years old. Although population aging is a critical problem, it creates new demand condition relating to this aging society. Japan has inadequate natural resources to support its large population, and therefore exports goods in which it has a comparative advantage such as engineering-oriented industrial products in exchange for the import of raw materials and petroleum.
1.2 Macroeconomic history

Post WWII Japan experienced rapid growth. The early postwar years were dedicated to rebuilding lost industrial capacity: significant investments were made in coal, steel, and chemicals. The mid-1960s ushered in a new type of industrial development as the economy opened itself to international competition and developed heavy and chemical manufactures. From the 1950s to the 1970s, overall economic growth has been called a "miracle". By the late Eighties, Japan had moved from being a low-wage to a high-wage economy. But in the beginning of 1990s, the country experienced the housing bubble burst and severe banking crash, and went into “lost decades”. This stagnation era is characterized by deflation and overvalued currency. Even though the consumption stagnated, this currency appreciation allows Japanese consumers to enjoy imported goods.

Figure1: Nominal GDP Growth Rate(Left) Exchange rate per US dollar (Right)

1.3 Political risks

Japan is parliamentary representative democratic country with bicameral legislative branch and cabinet system executive branch, which is led by a Prime Minister elected by the Diet members. Postwar Japan experienced LDP’s one party dominance. After the electoral system reform in 1994, the political system moved toward two-party system. This two party system created significant instability, and as the ruling party could not exert sufficient political
leadership. The government became known for indecisiveness and Japan saw a new elected prime minister every year since 2006.

One cause for this instability is the so-called “Twisted Diet,” rendering veto power to the upper house. However, in December, 2012, the LDP and its ally New Komeito achieved a super majority in the lower house. With this majority support, Prime Minister Abe was elected. The Japanese are hopeful this will change the political landscape and end the deadlock.

As Japan’s economic growth largely depends upon foreign trade, friendly ties with neighboring countries are critical. So far, Japan concluded 13 Free Trade Agreements and Economic Partnership Agreements. Japan also joins Trans-Pacific Strategic Economic Partnership trade talk with the U.S. and 10 Pacific nations.² Although there are some regional disputes, Japan is deepening integration among its neighbors. In 2012, seven out of the top ten export partners were Asian economies, with China being the biggest trading partner.³

1.4 Abenomics

Newly elected Prime Minister Abe launched a new economic policy, popularly dubbed ‘Abenomics,’ which consists of monetary policy, fiscal policy, and economic growth strategies. Since the launch in December 2012, the Japan’s stock market rose over 40% and the yen depreciated more than 20%.⁴ The Bank of Japan set a 2 % inflation target, which changed the expectation about deflationary spiral, which continued to exert downward pressure on the yen,
and created a negative real interest rate. It is hoped that this may reverse Japan’s excessive corporate saving and encourage investment.

1.5 Social infrastructure and demography

Japan currently faces significant demographic issues. Although Japan’s labor productivity exceeds OECD average, the country’s working-age population is shrinking rapidly. Furthermore, Japan has the longest overall life expectancy at birth in the world: 83.6 years for persons born in 2012, which further creates fiscal demand for healthcare as Japan has a universal health insurance. Fortunately for Japan, the female labor participation is increasing and is expected to help mitigate the declining workforce.

1.6 Microeconomic Competitiveness and National Diamond Analysis

Overall Japan's microeconomic settings are competitive based on the national diamond analysis. In 2012, Japan is ranked 16th using the original Competitiveness Index developed by the World Economic Forum or 18th using the New Global Competitiveness Index based on the Porter Cluster model.

Context for Firm Strategy and Rivalry

Japan’s stable government provides a strong environment for competition. A stable judiciary system upholds intellectual property, enforces anti-trust, and corruption is low in even in relation to developed countries. The economy prospered since the post-war period and
industries spawned a multitude of firms who compete intensely. Japan emerged through the post-war period and its ‘miracle years’ as a robust innovator of technology and high productivity as seen in the following figures:

At the same time, Japan has a history of protectionism. Foreign firms historically found it challenging to enter Japanese markets, which resulted in an overall lack of FDI and technology transfer. Trade barriers of specific industries like agriculture further protect domestic firms for internal markets and impede competition. Japan is ranked 24th in overall ease of doing business training behind its local peers: Singapore (1st), Hong Kong (2nd), and Korea (8th), and also developed countries such as US (4th), United Kingdom (7th). The strong presence in global brands in Japan indicates Japan’s openness at least in the skin care industry.

**Demand condition**

Japanese firms competed intensely in a highly demanding domestic market. Japanese consumers had highly sophisticated tastes ranging from aesthetics to safety and reliability. The quick feedback received from local markets enabled the Japanese to continuously innovate new ways to satisfy local tastes. This competitive dynamic enabled Japanese companies like Toyota to create the Camry known for its aesthetics, environmental standards, and safety. The accidents in 2009 shocked the world as Toyota had built such a global reputation for safety. Safety is critical for skin care as women apply the products to their face on a daily basis.
However, the sophisticated Japanese demand markets are not always beneficial. As a highly homogenous culture with an inward focus, many tastes have deviated beyond global market demands in a phenomenon dubbed the ‘Galapagos effect.’\textsuperscript{10} For example, in the cell phone markets prior to the smartphone era, Japanese cell phones had better innovation, but other developed markets found them ‘too clever.’\textsuperscript{11} It is important for skin care to be cognizant that Japanese market demands may overshoot other developed market demands.

\textit{Related and Supporting industry}

The competitive environment of Japanese firms is matched by an equally competitive supplier and related industry environment. The Japanese Facsimile case described the intense nature of incremental innovations demanded by the sophisticated Japanese markets, especially as it pertained to \textit{kei-haku-tan-sho} (lighter, thinner, shorter, and smaller) specifications.\textsuperscript{12} Significant innovation was demanded of parts suppliers. A retired Sony engineer described the vendor-customer relationship: “We are the majority of their sales and dominate price negotiations. They fight to improve their parts to maintain their business. That is what kept us strong.” It is important to note for skin care that the intense competition among suppliers enables operational efficiency, but does not necessarily correlate with competitiveness.

\textit{Factor condition}

Many factors contributed to Japan’s economic success and the competitive business environment. General MacArthur’s reconstruction plan following the post war devastation was succeeded by robust construction policies by a stable government, rendering a strong infrastructure, as evidenced by their resistance to earthquakes. As the booming economy required ever increasing coordination, the communications infrastructure developed. However, we believe the most critical factor contributing to success in Japan was the human capital.
The Japanese workforce has a core strength in engineering and sciences, which enabled major export industries such as steel and automotive. Primary and secondary enrollment is the highest in the world with a literacy rate of 99 percent. This renders significant advantage for the skin care industry as safety, chemistry, and innovation are important differentiators.

At the same time, the Japanese have shortfalls in its factors. While the capital markets infrastructure is ranked 20th, this is generally attributed to a strong commercial banking sector and venture capital funding is disproportionately weak. In one statistic, the US has 10x the venture capital market compared to Japan, while Japan has 10x the capital for protecting older, smaller businesses. This is also supported by the weakness in innovation infrastructure. The weak venture capital market may impede skin care innovation from start-ups and SME’s.

**Figure 10: Japanese Business Environment Diamond Analysis**

---

**Context for Strategy and Rivalry**

**Overall (22nd)**
- Intensity of local competition (2nd)
- Labor-Employer relations (7th)
- IP Protection (13rd)
- Anti-trust policy (15th)
- FDI and technology transfer (43th)
- Taxation on work & investing (50th)
- Prevalence of Trade barriers (56th)

**Related and supporting industries**

**Overall (22nd)**
- Local supplier quality (1st)
- Local supplier quality (4th)
- State of cluster dev’t (7th)
- Collaboration in clusters (11th)
- Spec training/research service (13th)
- Availability of latest technology (14th)

---

**Demand**

**Overall (16th)**
- Buyer Sophistication (1st)
- Demanding regulatory standards (12th)
- Stringent environ regs (10th)
- Government procurement of adv tech products (33th)
- Govt Success in ICT promotion (30th)
- Laws relating to ICT (36th)
1.7 National Cluster Mapping

Japan saw economic stagnation as it entered the ‘lost decades.’ The right figure provides an industry based perspective to the failed GDP growth. While the world saw an amazing economic boom, Japan grew an anemic 0.2%. It is noteworthy to mention the lack of growth in Electronics, an industry that Japan’s competitive strength dominated the global markets.

Japan's national cluster map highlights that its global exports are dominated by Automotive, Production Technology, Metal Mining and Manufacturing and Information Technology. What is striking is that none of these large clusters, and indeed only a handful of small clusters, increased its share of exports in the decade from 2000-2010. This speaks to Japan's declining competitiveness relative to other countries.

Skincare is part of the sub-cluster Health and Beauty Products within the Pharmaceuticals cluster which was Japan's 22nd largest cluster by export value ($5.6 billion in 2010) or 1.1% of Japan's export and had experience -1.1% growth from 2000-2010.
Disaggregating the Biopharmaceutical cluster, however, we see that although Health and Beauty Products is a small sub-cluster ($1.528 billion) it represented 2.2% of world export share. This ranked Japan’s Health and Beauty sub-cluster 13th in the world.

1.8 Industrial Cluster Policy since 2001

Japan was an early adopter of cluster theory as an organizing framework for economic development. As early as FY2001, the government (METI) launched the Industrial Cluster Project with a budget of JPY 16.6 billion,\(^\text{15}\) and sought to bring about a stream of innovation and venture backed companies by promulgating related cluster projects at city and regional levels.

The project sought to stimulate cluster growth by facilitating networks between regional SMEs and start-ups universities to form the core of new clusters. More than 10,200 regional SMEs stood up and over 560 universities got involved. Mid-term evaluations indicate that the program is good in fostering networks, but does little to impact the business environment.\(^\text{16}\)

2. Skin care industry overview:

Skin care, make up, and perfume, are the three sub-clusters within the Cosmetics cluster. The primary skin care products include facial moisturizer, facial cleanser, toner, eye cream, and facial mask. In 2012, the global sales revenue of skin care industry is $99 Billion with 5.7% CAGR.\(^\text{17}\) Based on interview with P&G marketing directors, the key drivers for the market mainly come from 1) Wealth in emerging countries; 2) Increasing spend per capita; 3) Pursuit of
agelessness, at time of ageing population; 4) Growing awareness of health and wellness; 5)
Technological advances driving premium products; 6) Increasing female workforce participation.

Asia Pacific region is the biggest market globally, taking over 45% of the market share, followed by Europe 26% and North America 13%.18 Japan is the biggest market globally, with over $15 Billion revenue in 2012. Typically, Asian countries are more addicted to skin care, proven by high regimen steps.

2.1 Competitions and Key Players

Sources: L’Oreal19,20,21, P&G22, Shiseido23

The large market size, high gross margins, and robust growth attracted over hundred thousand brands globally, competing with innovative products and huge marketing investments.
Branding is critical in skin care and global firms have invested heavily to create household brands such as Olay, Nivea, Pond’s, and premium brands like Shiseido, L’Oreal Paris, Estee Lauder, and Lancome. The L’Oreal group spends over 40% of its corporate revenue on marketing,\textsuperscript{24} while individual brands such as SKII invests 67% in marketing and SG&A in Japan.\textsuperscript{25}

2.2. Market Dynamics

Skin care industry is a competitive market and the key to win lies on “product innovation”, “distribution”, and “marketing”. Based on P&G internal company data, the three biggest benefit segments of Skin Care are Whitening (~40% market share), Anti-aging (~30%), and moisturizing and others (~30%). Even so, the benefit split is significantly different across different markets. For example, in Asia, Whitening is dominating with over ~50% of market share, while in Europe and NA, whitening segment is very small. This provides good opportunity for local players to emerge based on local consumer needs. SKII, a global player, used to be focusing on Japan with their legendary product “Essence Water”.

There are three key distribution channels globally, including counter (usually located in department store), shelf (usually in hyper and super market), E-commerce. Japanese skin care players are extraordinary in counter model with excellent consultation and store decoration.

Skin care product is not only selling a solution to consumers, but the brand merchants are also selling a dream. In this market, functional benefit and emotional benefit are two drivers motivating consumers to buy and use skin care products. That’s why all the players invest heavily in marketing to build up brand image and consumer loyalty. In Japan, skin care industry takes over 10% of total advertising spending.\textsuperscript{26}
2.3 Cluster History: Scarcity of raw ingredients caused the initial localization of cluster

Access to natural resources resulted in localization of Tokyo and Osaka Skin Care clusters

Two skin care clusters exist in Japan and they are found in Tokyo and Osaka. Access to natural resources happened because of historical context. Japan is a country with few natural resources and the majority of raw ingredients required to manufacture skin care products, such as high grade oil, needed to be imported.

Domestic skin care firms have been active in Japanese markets since the nineteenth century as evidenced by Shiseido, which was founded in 1872. The early Japanese skin care
firms gravitated to the major ports in Tokyo and Osaka so they could access imported goods with less transportation costs. During the war time era (1931 – 45), raw materials were rationed and the military government empowered the cosmetics trade association the rights to ration, which further grounded the major skin care houses into Tokyo and Osaka. Rations were lifted after the war, however, the need to maintain close relationships with the trading firms (e.g. Sumitomo, Mitsubishi, etc) required skin care houses to maintain a heavy center of gravity in Tokyo and Osaka.\textsuperscript{30} As the skin care cluster developed, supporting industries, such as packaging and bottling firms, developed locally, further reinforcing the cluster.

Today, the fashion industry, publishing industry (fashion magazines), and advertising agencies, all clustered in Tokyo and Osaka, play an integral role in the branding of skin care,\textsuperscript{31} and skin care firms remain local to maintain their close relationships.

\textit{The role of IFC’s evolved from war time rationing to culling statistics and drafting regulations}

The central role IFC’s played in rationing raw ingredients during the war time era is described in the above section. Following the war, the cosmetics trade association formally re-established itself as the Japan Cosmetics Industry Association (JCIA)\textsuperscript{32} and assumed the premier role amongst the IFC’s related to skin care. Their budget was created based on membership dues and their central members were former government bureaucrats and executives from industry. As JCIA, the IFC focused on (1) managing industry statistics and (2) culling information from major players to make regulatory recommendations. Significant contributions made by JCIA include streamlining regulations that enabled skin care houses to register their products.

\textit{Regulation on skin care and cosmetics products}

Skin care products are defined in The Pharmaceutical Affairs Act (PAA) as any item having mild effects on the human body that is rubbed, spread, or otherwise applied in a similar
manner for the purpose of cleansing, beautifying, or enhancing the attractiveness of the human skin, to change physical appearance, or to maintain a healthy condition. The industry is regulated by the Ministry of Health, Labor, and Welfare.

In 2001, the PAA was revised to relax the regulation. Japan’s cosmetic regulation required pre-market registration procedures before the deregulation. This stringent regulatory standard created the reputation of the safety Japanese cosmetic products and the sophisticated consumer preference. After the deregulation, manufacturers are responsible for product safety and post-market surveillance was introduced without compromising consumer safety. This deregulation encourages new entry and some companies, even from different industries, enter this market by leveraging their existing technologies.  

*Universities begin to strengthen skin care cluster*

In Japan, there has been a long tradition of separation of academia and industry. In the riots that took place in the 1960’s, there was a deep rooted suspicion towards industry. As one former aspiring particle physicist put it, academia sought to ‘keep the sacred spaces academic pursuit free of the tainted profit-seeking involvement of industry.’ In the pharmaceutical industry, university professors with cooperative relationships with industry players is often culturally depicted as receiving ‘kick-backs’ in exchange for their academic support.  

However, in face of declining innovation from the private sector, government sought to encourage academia-industry relationships. One example is a ‘Marianna,’ a product commercialized by St. Marianna Medical College. It is based on ‘Nano-Cubes,’ a drug delivery compound for burn victims, which is now being used to deliver anti-aging compounds to facial skin. Another example is ‘Minus Ten EGF Moisture Oil,’ a product produced from epidermal growth factors (hence EGF) developed in the Namiki Laboratories of Waseda university.
Also, universities began to offer courses on skin care. Skin care is a favored industry for college graduates and schools such as Tokyo University of Technology, Kanagawa Institute of Technology, and Chiba Institute of Science, established new skin care departments and courses.

2.4 Japanese Skin Care Cluster Analysis

Demand is the primary driver for Japanese skin care cluster

The local market for skin care products is extremely demanding. Japanese women are willing to spend far more and involve themselves in more complicated processes compared to consumers in other markets specifically for whitening (preventing melanin spots) and anti-aging (preventing wrinkles). On average, Japanese women spend 4.5 minutes on skin-care while Western women spend 1.7 minutes, and usage rate of facial lotion is 95% in Japan, versus 45% in US and 37% in UK. SK-II and Olay serve as examples of this difference as described in the figure.

It is noteworthy to mention that the Japanese skin care market values ‘natural’ beauty and many of the whitening and anti-aging products are centered on this look. Accordingly, this market does not embrace plastic surgery in the same manner as adopted by the Korean
markets. Although the intense desire for beauty derived significant demand for high-value facial application products, it did not nurture a robust plastics surgery market.

*High-margin skin-care market attracts aggressive competition*

The high consumption strength of Japanese women and their demand for premium skin care attracted significant competition in the cluster. Skin-care firms are largely divided into Manufacturing firms and Merchandising firms due to their respective roles. Manufacturing firms are OEM firms that produce product according to specifications. The Merchandising firms, such as Shiseido, are the firms that develop, market, and also assume the legal liabilities. Albeit with some market fluctuations, both manufacturing and merchandising firms have increased in recent years indicating increased competitive dynamics in the cluster.

![Figure 23: Robust Cluster of over 3,000 firms and all major global players represented](image)

*Source: Japan Cosmetic Industry Association*

In addition to domestic competition, all major global brands have operations in Japan, each with their prestige and mass skin care product lines. For example, P&G CEO Jager positioned P&G’s Asian regional headquarters in Tokyo focus on the demanding Japanese consumers as an engine for innovation. Although SK-II was a US-owned P&G brand, both brand and product were developed in Japan and speak to the strength of the Japanese skin care cluster and robust competitive dynamics that enable firms to innovate new products.

*Related and Supporting Industries play critical roles in Skin Care Cluster Growth*
Related and supporting industries have played a critical role in creating value in skin care. Supporting industries for skin care can largely be divided into OEM suppliers and marketing channels. The physical product of skin care is largely a commodity business and the gross margins for premium skin care products is extremely high, demonstrating the importance of brand value for skin care products where marketing channels play the dominant role.

*Publishing and Advertising agencies:* Skin care firms, with advertising agencies like Dentsu, messaged the value of their products through conventional means such as commercials and celebrity endorsements, but also through sophisticated articles in fashion magazines that detailed the ‘science’ behind various products and comparisons between the brands.

*Luxury Retail Channels:* Retail channels also played a critical role in creating value. While mass brands were sold on shelves through conventional means, premium brands were only sold through ‘beauty counselors’ in booths only found in luxury retail stores such as Mitsukoshi-Isetan. These ‘counselors’ are usually employees of premium skin care design houses and demonstrate the integration between luxury retail chains and the skin care design houses.

*Figure 24: Fashion Magazines and Luxury Retail Chains are critical elements in Skin Care*

*Bottling and Chemical providers:* Skin care products are essentially ‘water plus alpha,’ and the suppliers play a commodity role in skin care. At the same time, luxury product skin care design houses require sophisticated bottling suppliers and high quality chemical suppliers to manufacture their products. Japanese firms have a tradition of not acquiring their suppliers, even with proprietary technology, and the lack of M&A activity kept an environment of
aggressive competition and innovation among Japanese suppliers. As one IFC official commented, “Japanese manufacturing technology (for chemicals and bottling) is the best in the world. With only a phone and a desk, I can start-up my own skin care brand tomorrow by calling OEM bottlers and chemical producers.”

In the example of SK-II, their bottles have intricate technology built in that creates a negative pressure that vacuums back in product not used. Regarding chemical quality, they had an alleged incident of heavy metals found in products by Chinese regulatory agency in 2012. P&G was able to correct immediately, and the strong reputation of chemical quality of Japanese suppliers is thought to have played an important role in this quick recovery and protection of brand value.

Institutes for Collaboration and Tradefairs

As described above, the IFC’s currently function by culling statistics and drafting regulations for the government. While this created value for the industry by enhancing deregulation and increasing industry awareness among participants, there were no indications of IFC’s making a deliberate effort to develop the cluster and their focus was on safety and quality. The IFC representative recounts, “We hear how the trade association played a much more robust role in managing the industry during the war, but today, we really take a passive approach and leave it to the major corporations for the industrial strength.”
Trade fairs for the skin cluster is quite robust with global attendance, especially from Asian markets. Between the fashion magazines and the trade fairs, cluster participants enjoy real time feedback to the performance of their products, trends, and rising competitors.\textsuperscript{47}

Factors enabled superior cluster strength, however, significant deficiencies remain

Human capital: Japan has traditionally had superior human capital that supported the skin care cluster. Strengths in high grade chemicals and manufacturing intricate bottling enabled skin care design houses to create products that met sophisticated demands. A strong service oriented culture enabled design houses to hire the beauty counselors to attend the booths in luxury retail stores as design house representatives that directly interfaced with customers. All of these attributes contributed to skin care design houses to innovate and aggressively compete in the domestic markets. Examples of superior packaging and P&G beauty counselors are seen in the photographs in above sections.

![Figure 26: Japanese Raw Ingredients as factors for innovative products](image)

Raw materials: Japan is a volcanic island country with few natural resources. In the early phases of skin care, design houses had to import raw ingredients such as oils to manufacture their products. However, many raw ingredients have emerged from regional areas that produced innovative products when combined to legacy imported materials. For example, SK-II was developed from pitera, a compound found in rice and sake breweries.\textsuperscript{48} During an interview with JCIA, an IFC official explained, “In regional areas, there are many local skin care
products with local demand. Honey-Lab by Yamada Bee Farm is a good example of a skin care product that is using honey obtaining locally that is gaining significant interest. Especially with the internet, these local products can explode into national or even global products.49

Venture Capital: The underdeveloped nature of Japanese venture capital markets is widely known. Major Japanese firms tend not to acquire their suppliers and the lack of M&A exits impeded venture growth.50 The power difference between the large corporate customer and small supplier enabled corporations price benefits for their inputs, and suppliers aggressed competed with each other to compete in costs. While this was a benefit for major corporations in the short run, the weak venture capital markets impede innovation from small start-ups. The CSR analysis shows an increase in SME’s despite the scarcity of capital factor, a robust venture capital market in Japan could significantly increase the rate of innovation and further growth beyond what is seen today.

2.5 Cluster attributes that enhance competitiveness

Japanese skin care successes in Hong Kong and Taiwan51 indicate a strong demand from Asian markets and the rising economic prosperity of Chinese consumers indicate a rising market for Japanese skin care products, and this competitiveness is supported by all four corners of the diamond in a manner that is difficult to replicate in other regions. Aside from this trend, we identified two global trends that Japanese skin care cluster has further competitive advantage.

Aging demographics create further demand for skin-care products met by technology factors

Demand: The demographics of Japan’s aging population are described in the above sections. Melanin spots and wrinkles increase with age, and therefore the local demand for skin-care products with whitening and anti-aging properties will further increase from a culture that already holds them in high value. While the products in previous decades focused on
prevention of spots and wrinkling, the demand will shift towards management in aging women. This robust demand spurred innovation and an expansion in the market from facial application products to ingestible products\textsuperscript{52} to manage aging skin as described in the above with collagen drink products by Shiseido.\textsuperscript{53}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Ingestible Skin Care products expanding the market}
\end{figure}

**Factor:** Shiseido’s successes with ingestible collagen based products spurred unconventional market participants such as Fuji Film, who leveraged their engineers with technological know-how to produce high grade collagen gained through film processing.\textsuperscript{54}

**Implications:** In the past, Japanese skin-care products did not compete well in Western markets due to their lack of tolerance for multi-step regimens and willingness to pay as described in the SK-II example. However, the aging demographics of OECD countries may indicate a convergence of demand properties whereby Western women begin to demand more skin-care products that manage aging skin. Japanese cluster attributes would position the cluster well for this rising trend in the upcoming decades.

\textit{Decades of Stagnant Growth and high tastes created demand conditions for affordable luxury}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{image}
\caption{Affordable Luxury in mass retail chains}
\end{figure}
**Demand:** Since the bubble burst in Japan in the 90’s, Japanese markets dealt with stagnant growth for two decades. This created demand conditions for ‘affordable luxury,’ whereby sophisticated customers sought products with a sense of luxury at lower prices. Despite the downward market pressure, especially for premium products, Japanese skin care was able to grow 1.1% YoY prior to the global recession in 2009.55

**Related and Supporting Industries:** The challenge in this situation is how to capture this segment with lower willingness to pay while still protecting the brand equity. Japanese advertising houses such as Dentsu and retail chains such as the drug store giant Matsumoto Kiyoshi and Seven-Eleven Japan have worked with design houses to launch products and brands that met this demand while maintaining the high status of premium brands.56

**Implications:** Since the financial crisis, many European luxury brands have moved down-market to survive and damaged their brand equity in the process. However, Japanese skin care has maintained their luxury positioning despite decades of stagnant growth through the strength of the cluster. If European markets enter into a period of stagnant growth, their sophisticated markets may demand the same ‘affordable luxury,’ and the Japanese skin care cluster’s strength in managing brand equity while capturing lower markets may render competitive strength in the upcoming decade.

**3. Recommendations:**

Overall, the Japanese skin care cluster is competitive as evidenced by the strong market positions of Japanese firms like Shiseido and tremendous success of Japanese brands from foreign firms such as P&G’s SK-II. The sophisticated demand conditions and intense competition render significant competitive advantage to this cluster. After analysis of the cluster, we recognize opportunities to further strengthen this cluster and recommend the following:
### Figure 29: Summary of Recommendations

<table>
<thead>
<tr>
<th>Priority</th>
<th>Time frame</th>
<th>Characteristics</th>
<th>Challenge</th>
<th>Recommendation</th>
<th>Description of Impact</th>
<th>Execution Responsibilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>High</td>
<td>MT</td>
<td>RSI</td>
<td>Lack of cluster development leadership</td>
<td>Grant funding to IFC’s and invite major industry players to proactive role</td>
<td>Strong and credible leaders and a proper funding is required for an active IFC to develop the cluster</td>
<td>IFC, Government, Industry</td>
</tr>
<tr>
<td>High</td>
<td>MT</td>
<td>Factor</td>
<td>Students cannot ‘major’ in skin care</td>
<td>Develop skin care oriented courses into degree programs; IFC’s coordinate Universities and firms</td>
<td>Student interest in skin care is very high ranging from application of sciences, marketing, and product development. Creating a formalized program increases strength of workforce to enter into the cluster</td>
<td>Academia, IFC, and Industry</td>
</tr>
<tr>
<td>Med.</td>
<td>MT</td>
<td>Factor</td>
<td>Demand in workforce for emerging mkt's</td>
<td>Develop foreign exchange programs with countries with expected high growth and demand for skin care; leverage firms as internships sites</td>
<td>Increase allocation of sovereign wealth fund towards skin care</td>
<td>Academia, IFC, and Industry</td>
</tr>
<tr>
<td>High</td>
<td>ST</td>
<td>Factor</td>
<td>Lack of venture capital to SME</td>
<td>Increase allocation of sovereign wealth fund towards skin care</td>
<td>Increase in capital availability enables new ‘ideas’ to commercialize</td>
<td>Government</td>
</tr>
<tr>
<td>High</td>
<td>ST</td>
<td>Factor</td>
<td>Lack of venture capital to SME</td>
<td>Incentivize firms to acquire SME’s rather than treating them as vendors</td>
<td>Providing exits for investors accelerates cycling of capital and increases VC funding</td>
<td>Government</td>
</tr>
<tr>
<td>High</td>
<td>MT</td>
<td>RSI</td>
<td>Cost burden of marketing to SME's</td>
<td>Create efficient IT platform supporting SME’s with marketing and logistics</td>
<td>Enabling SME’s with platform for expansion increases competition</td>
<td>IFC</td>
</tr>
<tr>
<td>High</td>
<td>ST</td>
<td>RSI</td>
<td>Limitations to legacy skin care products</td>
<td>Create forum for collaboration with pharma and med devices</td>
<td>Increased collaboration enhances expansion of skin care products</td>
<td>IFC, Industry</td>
</tr>
<tr>
<td>High</td>
<td>MT</td>
<td>RSI</td>
<td>Untapped Japanese technology</td>
<td>Incentivize University-Industry collaboration to commercialize drug delivery and medical device technology in skin care</td>
<td>Government endorsement enables academics to avoid image of ‘corruption’ in collaborating with Industry</td>
<td>Government, IFC, Industry</td>
</tr>
<tr>
<td>Med.</td>
<td>MT</td>
<td>RSI</td>
<td>Market shifts to emerging</td>
<td>Coordinate with publishing, retail, and advertising clusters</td>
<td>Sharing market insights in emerging markets enables better interlocking of value chain on execution</td>
<td>IFC, Government, Industry</td>
</tr>
<tr>
<td>Med.</td>
<td>MT</td>
<td>RSI</td>
<td>Brand awareness in emerging markets</td>
<td>Create robust collaboration with tourism cluster to create targeted packages</td>
<td>Enables skin care to capture tourist traffic as opportunities to expand brand awareness</td>
<td>IFC, Industry</td>
</tr>
</tbody>
</table>

### 3.1 Lack of Active Cluster Development:

In discussions with JCIA, the IFC’s is largely a passive entity that culls statistics, drafts regulations, and organizes trade shows. The government acts as a regulating entity and does not actively involve with industry. The dynamics is similar in the academia as described above. While all of these activities are valuable for the cluster, there is no central entity that was actively promoting and developing the cluster.

Drawing upon the conclusions from the course, we recommend the IFC take on this central role. For the IFC to be effective, we believe two actions are necessary. Firstly, the IFC should actively invite credible leadership figures (former CEO of Shiseido, for example) to chair the cluster management and committees should be created with senior figures from industry, government, and academia. Secondly, credible development plans should be drafted and the progress monitored with appropriate feedback. The management of this process requires...
significant talent and resources. The government should incentivize industry participation, for example, by matching industry contributions.

It is important to structure this IFC in such a way that avoids rent seeking behavior by industry participants, and also prevents the IFC from becoming a lobbying organization. Senior representation from sectors such as advertising and retail, as well as senior members of foreign companies (such as L’Oreal) with robust Japanese activities are necessary for effective collaboration. Cluster development is not always intuitive and it may benefit to request for professional help to analyze and draft the cluster plan, obtain the buy-in from government and industry, and set up the structures to manage the successful completion of milestones.

3.2 Emerging Markets Require Development of Workforce: While Japan has the most sophisticated demand market for skin care, the Japanese market itself is stagnant. SK-II’s success in Hong Kong and Taiwan, as well as Olay’s success in China indicate Asian markets provide significant growth opportunities for sophisticated products developed in Japan. However, to truly capture this success, we recommend two targeted activities.

Firstly, Japanese skin care firms require workers that are both capable in skin care as well as working in emerging markets. Universities are now beginning to provide courses related to skin care and we recommend developing these into full-fledged degree programs with an emphasis on global marketing. Universities would benefit from industry experience and the IFC’s should take an active role in managing that collaboration.

Secondly, academic programs should incorporate foreign exchange that is targeted towards skin care. Industry could provide internship experiences that would provide on-the-ground experience for Japanese students and also attract foreign students to take the
opportunity to adapt the Japanese environment. Government support for streamlining visas for work experiences following graduation would also provide enhanced benefits to this program.

3.3 Untapped Opportunities in Japanese Science and Technology: The Japanese have very advanced science and technology (S&T) as evidenced by patent filing, R&D spend and robust workforce of researchers. For further growth, the skin care cluster would benefit from continued expansion of product offerings beyond the conventional oil-based facial application products. Ingestible collagen products from Fuji Film and drug delivery compounds by St Marianna University are examples described above. We recommend three recommendations for the cluster to further unlock the S&T strength of Japan for skin care.

Firstly, an analysis of Japanese S&T and potential applications in skin care is necessary. Chemicals and biopharma have been identified, but there are many other sectors such as home electronics, medical devices, and textile materials could all provide innovative ideas that could be further explored. An active IFC could play this role in hosting a forum for discussions and messaging the insights to the cluster.

Secondly, the identified insights require action. Collaboration can be facilitated by the IFC’s between industry players from different markets. S&T innately requires research and university participation may play a critical role. The government can further incentivize such collaboration to reach fruition by providing research grants. An active IFC could play a pivotal role to foster collaboration between government, academia, and multiple industry players.

Thirdly, the collaboration would require a new breed of knowledge workers. The creation of skin care academic degrees was mentioned above, and the university participation in training scientists that are focused on skin care would play an important element here as well. To further develop this work force, it may be useful for the government to fund an innovation
infrastructure (R&D center and incubator) where young scientists can actively participate in early stage S&T applications.

3.4 Unlocking the Innovative Strength of SME’s and Regional Skin Care Firms: Superior workforce, sophisticated markets, intense competition, and robust OEM manufacturing suppliers all contribute to a business environment that has significant potential for innovation. However, their growth is impeded by a lack of capital and high cost of marketing. We recommend three activities that may mitigate these obstacles and enhance significant innovation from SME’s and Regional Firms.

Firstly, IFC’s could create an IT platform whereby regional and local firms can gain support in marketing. The platform itself could educate on skin care marketing practices, social media know-how, and also act as a central point to messaging brands. Competitions can be hosted for innovative products and fashion magazines may sense enough scale to publish these events, further enabling local and regional skin care firms to market their products without incurring the major branding costs. Although regional firms are not physically co-located in the cluster, the virtual connections will naturally gravitate their activities towards the clusters in the form of trade shows and competitive events in the cluster.

Secondly, the weak venture capital markets impede growth and should be addressed. Until the capital markets fill this role, it may be useful for the government to provide the funding for such endeavors. The IFC’s should take a central role for a sovereign wealth fund by sourcing the expertise and human capital from industry. The IFC would also need to consider the allocation of total government spending on R&D through grants as described above and funding for actual commercialization.
Thirdly, one of the fundamental reasons for a weak venture capital industry is the lack of corporate M&A of SME’s in Japan. The IFC’s should actively cull this information and analyze the market failure. If the analyses demonstrate significant externalities in the current market structure, the government may consider restructuring the incentives to shift from protecting and supporting SME’s towards incentivizing major corporations to acquire small SME’s when appropriate. Providing tax incentives would be an actionable item for the government, while stature within the IFC would be an action for the IFC.

3.5 Managing the Major Shifts in Markets: The skin care industry is approaching a period of intense shifting as described above, and major firms are aggressively working to stay ahead of this trend. As the IFC takes on a leadership role in developing cluster, it must take on a proactive role in coordinating with different industry clusters. We recommend three activities:

Firstly, the IFC could increase their collaboration with the tourism cluster. As mentioned above, the emerging Asian markets have significant demand for Japanese skin care products. Specifically, coordinating with tour packages can enable more concentration on experiencing Japanese skin care. For example, the travel agencies can organize premium packages for Chinese clients to experience the high end skin care. Skin care firms and luxury retail chains can coordinate their beauty counselors for the robust demand for counseling in Chinese. Coordinating with the advertising firms can further magnify the brand awareness of Japanese skin care in emerging markets.

Secondly, the IFC could make significant efforts to gather marketing intelligence in the various emerging markets for cluster dissemination. There are many themes of retail, branding, publishing, and advertising that span a variety of luxury markets, which major firms may have individually, but the cluster does not have collectively. Information sharing through attitudes
and impressions among major players, and dissemination of findings to the cluster can provide significant value by allowing firms to benchmark their ideas and provide insights to SME’s without access to such information.

Thirdly, the IFC’s could coordinate skin care cluster relationships with mass retail chains in developed markets to capture the ‘affordable luxury’ segment. As described above, meeting luxury demand at a lower price point without degrading brand value is the essence of affordable luxury. By coordinating with retail chain IFC’s, the Japanese skin care cluster can benefit from forums for collaboration with targeted US and European retail firms that seek to carry such products and execute on affordable luxury strategies.

4. Conclusions:

Skin care is a $100B industry that is facing an era of major market shifts such as (1) anti-aging products, (2) ‘affordable luxury’ in developed markets, and (3) rise in emerging markets that seek premium skin care products. The Japanese skin care cluster has significant competitive advantage through its sophisticated demand for products that anticipate this demand as well as an intensely competitive cluster, and therefore we believe it is well positioned to capture growth through this shift.

However, we identified that there are weaknesses in the cluster such as: (1) lack of credible leadership for cluster development, and (2) lack of venture capital funding for SME’s. Furthermore, the Japanese skin care cluster has significant opportunities in (1) untapped power of Japanese science and technology not applied for commercial skin care, (2) preparing work force with specific academic programs and foreign exchange experiences, and (3) cross-cluster coordination for synergistic collaboration.
Japan’s aging population and declining competitiveness in legacy industries such as electronics require robust growth from sectors that are still competitive. Although skin care seems an unconventional industry to seek a solution for national growth, we believe the cluster has significant competitive advantage and potential for growth. We hope that achieving competitive strength in the skin care cluster will enable Japan to re-orient its fundamental beliefs from legacy protectionist policies and heavily commit itself towards a robust competitive cluster policy. We believe that engaging and investing into the Japanese cluster can increase the overall productivity in its rapidly diminishing workforce. Without such competitive growth, the Japanese will face difficulty in maintaining its prosperity.

Bibliography

18. Euromonitor, “Global Market Size, Skin Care.”
20. The L’Oreal Group Company data, One Source Information Services, accessed April 2013.
24 The L’Oreal Group Company data, One Source Information Services, accessed April 2013.
25 Bartlett, exhibit 2.
26 Skin Care Advertisement Spending, Dentsu (provided by JCIA).
28 JCIA Representative, interview by authors, April 1, 2013.
30 JCIA Representative, interview by authors, April 1, 2013.
31 Nakajima, p 16.
33 NCIA Representative, interview by authors, April 1, 2013.
35 Nakajima, 169.
39 Bartlett, exhibit 2.
40 Nakajima, p 7.
41 Bartlett, p 1.
42 JCIA Representative, interview by authors, April 1, 2013.
44 JCIA Representative, interview by authors, April 1, 2013.
46 JCIA Representative, interview by authors, April 1, 2013.
47 P&G Japan employee, interview by authors, April 16, 2013.
48 Bartlett, exhibit 1.
49 JCIA Representative, interview by authors, April 1, 2013.
51 Bartlett, p3.
52 Nakajima, p170-171.
54 Nakajima, p 168.
56 Nakajima, p69 – 70.