

Build brand image by means of exhibitions

[Electric home appliances sector : ChungPoong]

Brand does matter. These days, people understand that the life of many companies depends on brand power. To survive in the competitive market, firm brand power is a must. However, small and medium companies need a major effort to build their brand name value.

Regular exhibitions held in and outside of Korea give small and medium companies the opportunity to promote their company brands as well as their own technology. Air Cleaner producer, ChungPoong(CP), is one case of success in promoting a brand through such exhibitions.

[Innovation process]

His own product, tested on himself

Air Cleaner producer, CP, is selling anions which people can not "see". Of course you can see the plastic body of the cleaner, but you are actually buying anions. Anions are untouchable and invisible and are therefore difficult to sell without first building customers' understanding and trust. Anions are naturally generated in a forest or nearby the beach. An anion air cleaner artificially generates fresh air utilizing anions.

The air cleaners CP produces differ from air purifiers. While purifier filters the air with motor and filter(s), an air cleaner balances the amount of anions and cations, and optimizes the level of anions which are healthier than cations.

Cations do not move in the air, but anions move very actively. However, anions are absorbed or lost due to many factors. Therefore, anions should be supplemented. CP's air cleaner generates 500,000- 1,000,000 anions per square meter.

ChungPoong's President's, Choi Jin-Soon. product development process reminds people of the old saying, " necessity is the mother of invention." The reason he started an air cleaner business was purely because of the disease he suffered from in his early 40's. He was a running textile factory at that time and he lost his livelihood because of diabetes and palsy. He heard that anions would be good for his health from a Japanese buyer and started to study it himself from 1983. However, the term "anion" was not familiar to the average Korean at that time. Therefore, he had to study by himself with foreign scientific books and journals.

There had been many ups and downs until he invented the product. Whenever he thought he had perfected an anion machine, the product produced too much anion or too little. Sometimes he tested the product on himself. He thought he himself should be the object of experiment because he was developing it for himself. In fact, President Choi

continues to experiment by sleeping with the air cleaner on in his small room.

[IPRS process]

Utilize international invention exhibitions

There are so many inventors with patents in the world, but there are not many business people who actually succeeded in commercializing patented items. President Choi has built a strong mid. sized company with his patented 'anion air cleaner.'

He differentiates "inventors who like the invention itself" and "inventors who want to become a business person." His strategy is to become a business person, by concentrating on one item and developing a firm lead in technology, and not to waste time inventing many different items.

Currently, there are 200 companies which produce anion air cleaners. CP formally sued many such companies by hiring lawyers to protect patent rights, but soon it became evident that rather than wasting too much money on such efforts, CP should advance its own technological level. CP strengthened product image by receiving awards at major invention fairs.

After 4 years of effort, CP made its first product in 1987 and obtained a patent. However, CP had no distribution channel because the media at that time portrayed such items as "ozone producers" which are harmful to human health. CP filed for bankruptcy in 1992. President Choi,

however, remained active. He started to participate in international fairs. He needed international recognition for his product's innovation and quality.

Finally, ChungPoong's Anion Air Cleaner succeeded in many international invention fairs, such as Geneva International Invention Fair, and Korean Invention Fair. After the product received awards from many international fairs, trust in the product steadily grew, quickly building brand name loyalty.

CP received a Gold Award in Germany's International Invention Fair as well as in Switzerland and the U.S. In the international invention fairs, CP set the record by winning 8 consecutive Gold Awards in the Environment and Medical category, and is currently listed in the *Guinness Book of World Records*.

President Choi also received many Korean awards: Trade Minister's Award of Korean Invention Promotion (1995), Prime Minister's Invention Day Award (1995), Industrial Sector Gold Award of the Jang Young-Sil Science Culture Award(1999), the 100 Patent Product Selection(2002), and others. The list of awards fills 2 pages of Mr. Choi's resume.

[Commercialize process]

Increase consumer satisfaction through mail-order sales

ChungPoong's strength proved itself during the IMF crisis. While many

businesses were failing, CP's sales and net profit increased. This was the result of the President's belief that, 'the risk gives the chance,' and his concentration on one product.

President Choi states that CP is exporting its products to prevent new imports from overtaking CP's domestic market. Actually, not many imported air cleaners are sold in Korea. CP is pursuing a distinctive sales method. He is selling based on mail-order sales, rather than on selling through a dealer network. CP wants to remove the middle distributor so that consumers can have lower prices.

CP avoided the standard for a managerial system and adapted a "small president system" encouraging employees to think of the company as their own. The distinctive distribution channel and sales method is based on "integrity" which President Choi believes is the highest policy in company management. This viewpoint is based on his own work as a man of integrity for 40 years who received help from clients, employees, and consumers.

CP, with its sales at 20 Billion won in 2002, already recorded 18 billion won by June, 2003 and is striving to reach 50 Billion won in 2003. CP now also exports to Japan and China, and holds the lead in market share in Beijing, China. CP is planning to diversify its markets and sell half of its products overseas by 2005.

Even though large conglomerates are trying to penetrate the food supplement-medicinal food market these days. CP is confident that it will

remain the leader of the air cleaner market because its product has already firmly established its brand name and technological strength.

Take advantage of government support programs

[Daily care sector : Watos Corea Co., LTD.]

Watos Corea co., LTD.(WC) was established 30 years ago, and specializes in manufacturing bathroom equipment such as toilet bowls and washbasins. The turnover for year 2002 was 14 billion won, proving that size is not the only factor for a small yet powerful company.

WC expected water shortage to be one of the greatest issues in the 90's and began to invest heavily into research and development for more efficient water usage.

Their expectation was correct as WC's strategy matched government policy and social trends, and helped it capture 70% of the bathroom equipment market in Korea.

[Innovation process]

Continuous investment in R&D is the key

WC's most important and successful product, the Water Saving Toilet was developed in part by accident. In 1996, President Song, the founder of WC, saw a brick in the toilet water tank when he visited a house for maintenance, and he began to calculate the amount of water per flush.

According to his calculation, a toilet with a 13 liters water tank can completely flush a bowl of stool with 11 liters of water and a bowl with urine with 7.5 liters. Most of the toilets in the market use the maximum 19 liters of water. It was a tremendous waste. As a result, President Song developed a product that could easily control this amount of water

per flush. The product he has developed is the Noiseless Feel Valve.

However, he received an urgent message that the product was leaking. Sand from the water pipe in the construction site where the toilet bowl was installed made the pressure fluctuate, causing the leak.

Due to these failures, WC increased its investment in research and development from 20 million to 100 million won and the development period from 1 year to 3 years. Unfortunately, within this time, the product lost credibility. Thus, President Song restarted his studies and after 5 years using 150 million won and his tremendous passion, he created the Noiseless Feel Valve.

Before the development of the Noiseless Feel Valve, the company used the Fresh Valve which discharges the water in the water tank into the bowl. This product is a 2 step water saving device, which differentiates the quantity of water according to stool and urine. In the development stage of this product, there were two places for possible leaks because there were two valves.

WC sometimes had to compensate 1 million won for a 1,000 won product, and sometimes had to replace all products 2 years after installing. Yet, the know-how WC accumulated through these errors and costs are the assets it now has.

[IPRS process]

Make the most of the government support

WC is focusing its endeavors into technological improvements and patenting. Technological advantages gives a company the competitive

edge needed to succeed in the market. Furthermore, legalization, and standardization of its products and their conformity to environmental standards help promote sales. In addition, WC made consistent efforts to retain all its legal rights. Currently, the company has 111 registered patents, 54 utility models, 40 design registrations, 19 trade mark registrations, 1 overseas patent, 6 overseas trade mark, and others.

When the government made it obligatory to install water saving toilet bowls and showers, WC developed shower nozzles with automatic closing functions. The government provided 60 million won of the 100 million won required in total development costs.

[Commercialization process]

Pay attention to government policy

A long road full of trials and failures eventually became Noiseless Feel Valve, the cash cow for WC, with a production cost 30 % lower than conventional products but with a selling price 20% higher. This product sold 2 million units in 2002.

Behind WC's success, is the government's water saving policy. Large companies had to install water saving devices which was a golden opportunity for WC.

In actuality, the sales of water saving products were not that high due to the lack of understanding by construction companies. However, the good quality of its water saving products heightened the image of WC, and as a result, it was able to supply other products.

The newly developed Watos water saver toilets were well-recognized

by consumers as well as central and regional governments. The product was nominated for Excellent Product by the Office of Supply and Procurement.

WC is busy developing overseas markets. In the U.S., there is an incentive system for every household to earn a 100 dollar rebate from the government when replacing toilets with water saving equipment. WC is promoting its product by advertising the effectiveness of installing only the water saver rather than replacing the whole toilet.

The products WC has developed need continuous after service. The company is proud of its highly efficient after service system. President Song believes the company owes its success to their superb customer service, the effort to develop its technology, and government support.

Concentrate all your capacity on a single product

[Life goods sector : Hana Cobi, Ltd.]

This is the success story of Hana Cobi(HC), a company that grasped the advantages of a strong marketing strategy to turn a simple solution into a 50 billion won business. A product with high potential in the market may never leave the warehouse if it is not effectively promoted in the market. This is often the case with small and medium sized companies that are limited in capital and weak in sales network.

HC began as a company focusing on importing and manufacturing restaurant, kitchen, bathroom, picnic, and children-related products with a total of 600 different items. Kim Jun-II, the founder of HC, knew that the company's would be limited if it continued only importing products without its own brand. Thus, company established its own factory in 1993 and within one year began manufacturing products.

Now a growing company with high potential in the world market with its innovative sealed container, HC is a success case that, having measured its potential, expanded its market and customer base through a competitive marketing strategy via the channels of media and promotions.

[Innovation process]

Select the item with high market compatibility

Aside from the strong aroma of Korean food, foods like kim-chi and soy bean soup contain high moisture, which if not sealed properly develops into a pungent odor inside the refrigerator. Though many refrigerator deodorants and detergents have been created to purge this odor, there had been few developments to prevent the smell ruining the refrigerator in the first place.

It became apparent to President Kim that Koreans did not have a good solution for sealing off the strong smell of traditional Korean foods, and conventional sealed bowls could not completely seal in the moisture. Opening and closing the lids of every type of containers, he began experimenting to develop a new product. In 1998, President Kim created Lock & Lock.

While conventional sealed bowls were adaptations of a sealing method developed 50 years ago, Lock & Lock is based on a 4 side locking method which is more suitable for food with strong smell and high moisture. Moisture transmission protection rate is made 100 times better with Lock & Lock because of the silicon pads attached to the sealing sides. Lock & Lock are made of transparent polypropylene and silicon, which are durable, shatterproof and safe to keep food. This raw material was later developed into poly carbonate, which in addition to the qualities of the previous, made the final product impenetrable to the smell of kim-chi and other foods.

[IPRS process]

Secure own brand and technology

Lock & Lock containers, with no leaking and opening or closing problem, were developed in 1998 after 3 years of research and development.

The patent of Lock & lock is currently registered in the U.S. and Taiwan as well as in Korea and is in the process of being registered in 45 countries. HC has even received a subsidy for patent applications in foreign countries from the Korean Intellectual Property Office.

Furthermore, HC gained information about the technical status of sealed containers and competitors by receiving the support of PM(Patent Map : Patent information analysis) from the In-cheon Regional Chamber of Commerce and Industry.

While, HC registered its brand, Lock & Lock, the company strived to attain official recognition for its quality. HC passed the 30,000 times "hinge test" at the Korea Living Environment Test Research Center. It also obtained the sealed container-related certifications: Quality Assurance (Q) mark, antibiotic, hygiene assurance, (SF) mark, and Hygiene safety (HS) mark. HC confirmed its reputation for safety and hygiene by passing world prestigious hygiene tests such as American FDA's quality assurance and Germany's SGS test.

[Commercialization process]

Marketing method and strategy that allows consumers to experience for themselves

Lock & Lock's marketing strategy was based on finding the solution to their greatest obstacle: defeating consumer brand loyalty to existing sealed containers. The solution was to bring Lock and Lock into the hands of consumers. The company began by giving away Lock and Lock products and vigorously participating in the 4 biggest kitchen appliances exhibitions in the world and increasing its efforts in overseas promotions. HC diversified its distribution channel into the Home Shopping Network on cable TV to educate consumers on the solutions Lock & Lock was providing. Through the help of that media, Lock & Lock was able to enter to Korean and overseas households in a very short time.

The product came to enjoy more popularity in the overseas market when America's biggest shopping channel QVC began to advertise HC products. The success in America increased Korean sales because of what is called "the Boomerang effect". When America's QVC introduced Lock and Lock live from Chicago world exhibition in February 2002, 5,000 sets of the product were sold in 7 minutes. When QVC selected Lock & Lock among the most popular items of the year, 60,000 sets of Lock & Lock were sold.

Lock & Lock shook the world's sealed container market in a very time. That market had been dominated by America's Tupperware and Rubber

Maid.

Lock & Lock, was initially recognized by America, Hong Kong and Europe for its safety and durability. The world's 4 largest houseware shows, in Hong Kong, Tokyo, Chicago, and Frankfurt, favorably commented on it by using the phrases as 'Sealed container with a new concept which will lead the next 10 years.'

HC exported products worth 14 billion won to 45 countries in 2002 and is now expecting 30 billion won in exports this year. Thanks to the popularity in the overseas market as well as the Korean market, sales continuously increased from 530 million won in 1999 to 17.6 billion won in 2001, and to 50 billion won in 2002, a growth rate of 100-250%. This year's target is sales of 100 billion won, manufacturing 20 million sealed containers and exporting 30 billion won, worth.

Write manuals for all manufacturing processes

[Sporting goods sector : DaDa Corporation]

DaDa Corporation, exported all its products to famous sports brand companies, such as Nike, Adidas, Polo, Reebok, Benneton as well as for 4 major American sports leagues, NBA, NHL, MBL and NFL. Moreover, it realized the limitations of the Korean market and developed its overseas market share from the start.

There is an old saying, " Sharpen both sides of the blades". Two obstacles in a manufacturing industry are high labor cost and overseas factory establishment with a good location and conditions. In most cases, companies compromise work process and quality for low labor cost and good factory conditions.

DaDa standardized all its production and defined the processing in manuals, when it developed overseas production factories. It has also committed itself to continuous technological development, which benefited it with significant competitive edge. As a result, DaDa Corporation could sharpen two blades, low production cost and good quality, and became the world's best sports cap manufacturer.

[Innovation process]

Standardized quality with standardized technology

President Park Bu-Il of DaDa Corporation, first got an idea about caps when he went to the U.S. for a business trip in the 1970's. He was impressed by the fact that many Americans wore sports caps and even

collected them. As soon as he came back to Seoul, he immediately closed his trading business, and started a cap manufacturing business with 5 sewing machines in a small factory in Shillim Dong.

With the government's export oriented policy at that time and DaDa's ambition to become the world's best, the small factory propelled itself into a successful business.

Another success factor, DaDa did not have a major competitor because others did not want to jump into the low profit margin, cap market. Most companies were very small and some bigger companies which were selling caps together with clothes were not threatened by small producers. DaDa, however, devoted its time and money entirely to sports caps.

The reason why DaDa focused on export was not only because of the limited Korean market but also the influence of his professor when he was studying at Yeonsei University. In early 1960s, Korea was a very poor country, and his professor preached that the only way for Korea to survive was to increase export.

DaDa was one of a few medium-sized companies, being only 3rd or 4th in the field in the 1980s. Due to the high labor cost, poor factory location, and shortage of manpower, DaDa went overseas. There are internal obstacles in building factories. However, the factories played an important role as the foremost frontline for export and helped the company work its way out from under IMF crisis.

DaDa's competitors became foreign companies when the company transferred facilities overseas and opened its factories in Indonesia in

1987, and in Bangladesh in 1991, and 1994. DaDa succeeded in cost reduction through South East Asia's low labor cost and good factory conditions. Since the work process was explicitly outlined in the manuals for good quality and quantity, production went smoothly. The point is that every procedure has its standard principle. The company made manuals for the entire process. The manuals were applied to all of the factories including those in Bangladesh, Indonesia, and America.

The ideal company that DaDa pursues is the company which operates exactly like a computer. People say it is difficult to mechanize the textile industry because many processes are done by people. DaDa insists upon standardized manuals because of this. Standardization is the first step to increase production and decrease the defect rate.

Manuals give instructions about sample dispatch to buyers in 5 days, supplying goods within 5 days from the order date, 30 minutes training daily, equipment controlling at the production site, and also delivery. The company has nearly achieved process perfection, and the products manufactured in Bangladesh and Indonesia now exceed those in Korea.

[IPRS process]

Realized the importance of intellectual property from the early stages

Through the years, DaDa accumulated technology and know-how and obtained 127 items of intellectual property related IPRS including patents, utility models and designs and trademarks. Including patents currently under processing, the total is 230. DaDa makes distinctive caps with patented materials, functions, and designs.

When most producers did not value the importance of patents in cap products, DaDa applied for patents in the U.S., the most important market for cap products. Among those patents are, "FLEXSEAM" and "WINKBAND" products, which enables people to adjust the size of a cap to fit the head. "FLEXSEAM" received high praise from customers and has applied for PCT in 9 countries including the U.S. In addition, when "FLEXSEAM" applied for a patent and became registered, DaDa became acquainted with the government's small and medium-sized company support program through the Korean Intellectual Property Office's brochures, and quickly received the benefits of registration fee exemption.

As a result, DaDa licensed the 'WINKBAND' patent to the U.S. cap maker, Paramount, 2 years ago, and received 560,000 dollars for royalty. Since intellectual property is now considered a key business component, the company believes that IP was the basis to go one step further than other companies. Continuous development made it possible to make new products even better than 'FLEXSEAM' and 'WINKBAND' and they are now in the process of receiving patents.

Starting this year, DaDa's P7173 movement began. This movement seeks to apply for a patent every 7 days and to improve 3 patents every 7 days.

[Commercialization process]

Selling overseas from overseas production complex

DaDa thought of caps as a continuously consumed product. Competition in that field is not that severe.

Now, DaDa's 13 production factories in China, Bangladesh, Indonesia,

and Vietnam, with a total of 14,000 employees, produce 200,000 caps a day and 60 million a year. In the Korean head office, there are only core departments such as R&D, export sales, and logistics.

Because DaDa's caps are sold 100% overseas, Korean people can buy them only at the import brand shops with imported items.

DaDa does not use the OEM production method, which produces low value added goods, but follows the ODM method which designs and develops its own products. DaDa's labor allocation is 25% for R&D. Sales made under the ODM method are 32%.

About 60 designers make 100 cap samples a day, and buyers purchase 30-40% of them. DaDa is planning to increase this ratio to 50%.

Cap design development of even dominant companies like Nike and Reebok is not that active while they are very active in clothing design. Because DaDa is continuously developing cap design, giant companies in the world have come to recognize Dada's design ingenuity. DaDa is currently supplying caps to America's 4 major sports league, NBA, NHL, MLB, and NFL as well as to the world's leading sports brands like Adidas, Nike, Polo, Reebok, and Benneton.

DaDa is dominating the world's sports cap market. Since its foundation in 1974, DaDa produced 6 billion caps in 30 years. Last year, the company recorded exports of 135.5 billion won, and took 45% of the world's cap market. President Park comments, " 1 out of every 10 people in this world is wearing a cap with a Dada mark."

The suggestion system of DaDa Corporation differs from other

companies. Managers, and team leaders of overseas factories must propose at least 1 development or improvement idea. Designers in Seoul's head office develop 1 idea a day, and 1 hit product a week. Employees with good proposals are awarded in every quarter.

DaDa introduces its own design to buyers and develops strategic products every month. DaDa is proudly introducing itself as a company with no defections, which enables it to get orders from Adidas, Fila, Levis, etc. The company hires local people and develops their potential and give managerial jobs to localize its manufacturing and sales basis.

DaDa is also involved with local society support program. For example, it supports local schools with scholarships. The important factor for differentiation of DaDa is the R&D power and delicate embroidery achieved by standardization. Design, development, good pattern, and punching, which are done by state-of-the-art computer systems meet and often exceed buyers' needs.

DaDa checks and updates manuals of all its factories overseas every month. In addition, the company respects local religion, customs, and cultures and tries to abolish violations caused by Koreans to make a stronger relationship with local labor workers. Thanks to all of these efforts, DaDa has maintained a high growth pace and became the largest cap manufacturer in the world, holding 45% of the world sports cap market in 2002.

DaDa's foremost current interests are digitalization and knowledge-based management. The ambition is to digitalize the know-how to enable the shortest supply time with speedy management, and to strengthen its compatibility by securing its intellectual properties, as through patents.

Last year, DaDa completed establishing the ERP system as the first step towards these goals. Now, DaDa Corporation is ready to become a truly global company with the world's best compatibility by making a digital environment with Supply Chain Management(SCM), Customer Relationship Management(CRM) and a Knowledge Management System (KMS).

Develop a new market

[Life goods sector : Hwanggi Moa]

With the increasing attention on health-related issues, products such as air cleaners and organic foods are becoming presently more popular. Hwanggi Moa(HM) found its niche market in the health industry making clothes, umbrellas, bed sheets, and accessories based on its patented dying methods using natural materials like bamboo charcoal and yellow earth.

Its products were recognized for their superior solutions in allergy prevention and disinfectants and received the Korea-Japan World Cup Award as well as the Asian Game Award.

[Innovation process]

Selection of a distinctive item

The founder of Hwanggi Moa, President Rye Sook is known as the "woman who spins cloth from the life and energy of yellow earth." She is recognized as the first person who systemized the yellow earth dying method. Her admiration for yellow earth stems from her own experience with its success.

President Ryu suffered from medical complications in her back and knees from a car accident in 1980. She tried many medications but

without satisfactory benefit. She finally turned to hand acupuncture and oriental medicine.

In 1991, she started to care for patients as the President of the Korea Hand Acupuncture Academy, Soon Cheon Branch. She also started to experiment with yellow earth and quickly discovered its superb effects on skin diseases and eczema. When she was thinking how to cure skin disorders such as pimples, she read explanations about yellow earth's effect in oriental medicine books such as *Eastern Medicine Handbook*. As a result, she became a yellow earth fabric dyer in 1998. She thought that urban residents, who have a very limited exposure to soil and nature, could benefit from yellow earth dyed clothes and bed sheets. President Ryu established a workshop in a deserted school near Seom-Jin River in Gu-Rae, Jeon Nam, and purchased yellow earth from Soon-Cheon.

Yellow earth is fine soil composed of 0.02-0.05mm particles. Its main ingredient is silicon. Yellow soil has been used since early history for its ability to neutralize poison and alleviate burn wounds. Even the water, from which yellow earth is sifted, is used to cure various skin diseases. It also produces an abundant of infrared waves, and is used in the treatment of ovarian and breast cancer. Though a tremendous source of natural ingredients for good health, the difficulty in processing and using yellow earth as a dye is just as great.

In the beginning, clothes were repeatedly burned; each failure made it seem impossible to reach her goal of making traditional Korean dresses

with yellow earth. However, overcoming these failures allowed Hwanggi Moa to become a company with unique expertise.

[IPRS process]

Perceive the importance of patenting

The most difficult procedure in creating yellow earth dye maintaining the color its natural yellow earth character. First, the best yellow earth is must be acquired. Next it is sifted nine times with clean water. Lastly, it is fermented to keep the color from washing out of the cloth. After dying, the cloth is dried under the sun. In total, there are 63 tedious and meticulous procedures to produce good quality yellow earth cloth.

There is a limited production capacity due to the rain seasons. In fact, working days are only about 4-6 months a year. Experiments with artificial drying rooms were carried out but abandoned because of lower product quality.

President Rye applied for a patent solely on the recommendation of others for she did not really understand the importance of patents. When she saw similar products created by competition immediately following yellow earth's popularity, she realized the importance of her patent (No. 321991).

Dying cloth with yellow earth is not an easy process. But with each procedure requiring manual labor, this industry is valuable as a job provides.

Hwanggi Moa uses yellow earth for bed sheets, underwear and accessories. It makes patterns using bamboo charcoal, gardenia seeds, and other natural items. It also makes designs using traditional patterns and produces clothing, cushions, sheets, underwear, pillows and curtains.

HM is currently planning to develop a natural dye with bamboo from Dam-Yang. Currently, HM owns 20 patents for yellow earth dye methods.

[Commercialization process]

Respond to trends

HM did not receive much attention in the beginning. However, sales increased dramatically when it became known to the public that yellow earth is good for the prevention and cure of skin disorders and diseases. Sales increased steadily along with the increase of natural products consumption. Sales now reach 3 billion won. Recently, the company opened its internet shopping mall, and on-line sales are promising.

HM participated in exhibitions such as the Distinguished Products by Women Entrepreneurs. It used the exhibition to help develop sales routes and advertise its level of technique. It was also beneficial for meeting other business people and learning about management. Direct orders supplier selections were direct results.

The major business factor for HM is product promotion. Exhibitions

might seem to lack major, immediate benefits, but exhibitions provide an opportunity for future sales by introducing products and the company itself.

HM has 2 retail shops on its own, and 7 dealers. HM's products are popular overseas, selling in 17 states in the U.S.

HM plans to concentrate on exporting this year. It also plans to export to Germany where prospects are very good because of the tremendous growth of interest in natural products.

Remake patent technique to fit the domestic market

[Office furniture sector : Duo Back Korea]

Nokia dominates the world cellular phone market except in Korea. This is partly due to their failure to understand Korean culture and consumer demand.

Though an idea or technique may be superior in terms of innovation and quality, it may very well still require some localization in order to fit the trends and needs of the local market.

Duo Back Korea(DBK) is an example of such a case in which the original technique from Germany was localized to successfully meet Korean taste. Even though DBK pays royalty fees to Germany, it now has 6 patents and 25 utility models of its own. Duo Back has exported chairs to East Asia and plans to export to Europe and U.S.A. this year.

[Innovation Process]

Develop new products to overcome weakness of existing products

According to many factors, Korea maintains the highest level of zeal for children's education in the world. A great deal of time and money is spent for childhood education. With students spending most of their time in front of their desks, sitting in chairs, correct posture is most important

in order to prevent spinal injury or chronic back pain.

DBK's president, Mr. Jung Hae-chang who developed and sold the functional dual backrest chair and thereby opened a new market for chairs, has devoted 30 years of research in order to make students and elders more comfortable.

In 1974, Mr. Jung started his own business to manufacture chairs. In the early 1980s, he produced parts for desks and chairs including those with curved plywood, at that time a new market for the functional chair. As soon as his business stabilized, he decided to focus on the chair business and began studying market trends. At that time, chairs were considered as a part of a set with desks. High Pack chairs, imported from Prototo in Germany, gained public interest.

Mr. Jung planned to manufacture High Pack chairs and sell them domestically, making chairs suited to the average Korean's body shape and posture. Also, by using Grahl's patents, he produced Duo Back chairs.

It took one year to develop the product because DBK lacked proper manufacturing techniques. The focus was to study the average Korean's body shape and to develop products most suitable for Koreans. As the research progressed, it was apparent that there were little research material. Also, virtually no attempt had been made to secure mobility of the backrest in regular chairs. Finally, the chair was developed reducing about 20kg of seated pressure.

Designed to meet ergonomic design standards, the Duo Back chair is a special chair in terms of correcting posture naturally. The chair was based on the theory of a notable physicist, Professor Bruining, who pioneered the core technique, Duo Back Theory. Two split backrests and special functioning rubber move three dimensionally to react to the users' movement. Therefore, it actually massages the back muscles, especially the lumbar area. When a person on the chair moves or changes posture, two backrests also move three dimensionally reacting to the user's movement. It supports the spine and the back muscles to maintain healthy posture and reduce pressure on the waist.

Users said that they felt less fatigue after sitting in the Duo Back chair for a long time. It is the physiological effect of reflex to stimulus. Backrests send a signal to activate tension in the muscles by stimulating nerves. This helps maintain correct posture and reduces fatigue. In other words, mental fatigue brought on by trying to keep a good posture is reduced.

The cushion on the backrest enhances pressure in a crossing manner unlike other regular chairs. Professor Schoberth presented conditions for good backrests, requiring enough stimulus on the back and supporting the back. The conditions are well met through Duo Back chair's backrests.

[IPRS process]

Continuously readjusting patented techniques

The key reason behind developing Duo Back chairs are health and ergonomics. Duo Back's superiority has been recognized, and the company now holds several patents, utility models and registration of copyrights. There have been 6 patents and 25 utility models, and between 30 and 40 patents and utility models are pending.

Duo Back invested 8% of its net profit in research and development. Recently, the company and participating universities developed desks and chairs called "Duo School" which helps students to correct posture and improve efficiency when studying.

The original technique for Duo Back belongs to Grahl, a German chair manufacturer. Mr. Jung accidentally saw Duo Back chair in a catalogue and went to Germany in order to see the real model.

At that time, Grahl considered Duo Back chair as a medical appliance. Therefore, the price was high and only a small quantity was produced. After seeing the chair, Mr. Jung thought that the Duo Back chair is what students who sit for long periods need. He attempted to use work within the patent, but Grahl required him to pay a royalty fee per product, for an amount depending on annual GNP. However, Mr. Jung wanted to mass produce and cut the price. He couldn't accept all of Grahl's requirements. After a long negotiation, he contracted to pay one million dollars in royalty fees for 15 years. In addition, he also found a way to export High Pack chairs to Prototo. At that time, he brought High Pack chairs made in Korea to Prototo, showed the superiority of the product, and explained his marketing strategy. He acquired approval from Prototo

to use its trademark in Japan and East Asia and thus attained business connections.

Localizing successful foreign products, like High Pack and Duo Back chairs, to meet Koreans' needs, Duo Back Korea emphasized joint ventures. He made an unconventional decision to allow 20 domestic chair manufacturers to use his patents because Mr. Jung knows the importance of patents and copyrights. It is expected to improve core techniques and create new ones by combining other superior patented techniques. Product quality in general can also be enhanced in this fashion.

[Commercialization Process]

Use various marketing channels

Not all distributors willingly buy products from small and medium-sized business that have no brand value. Initially, distributors had no interest in Duo Back chairs because it was not a familiar product at that time. Therefore, Duo Back Korea used telemarketing, cable TV home shopping channels and advertising in subway trains for direct promotion of its products to consumers.

Even though Duo Back Korea went through some difficulties to sell products for the first time, due to the IMF crises, Mr. Jung's idea was right. After using some marketing channels, such as advertising in subway trains and TV home shopping, Duo Back grossed 7.9 billion won in sales in 1999, compared to a loss of 6.4 billion won in 1998. Total sales were 16.9 billion won in 2000, 25 billion won in 2001, and 32 billion

won in 2002. This year's goal is 45 billion won. As Duo Back chairs gained public favor, some furniture manufacturers started to produce similar chairs.

Another Duo Back goal for this year is export. It has been difficult to export Duo Back chairs because of Grahl's restrictions on the original technique. However, the company tries to export applied goods for which domestic techniques are used. It has exported a small quantity to Southeast Asia last year. Duo Back Korea expects to export to Europe and the U.S.A. after consulting with Grahl.

Duo Back Korea focuses on increasing the variations in products and maintaining a competitive edge through research and development in order to prepare for exporting. At present, it allocates 8% of net profit to research and development. DBK recently opened a new factory in Gajawdong, Incheon that is capable of manufacturing 600,000 items per year. A laboratory for studying design, and plans, as well as ergonomic experiments is also located there. Duo Back expects to expand in both secure domestic markets and exports.

Retain leadership in the field

[Sports supply sector : HJC Co., Ltd.]

HJC holds 15% of the worldwide motorcycle helmet market. In developing brand value, HJC grasped the competitive edge with their excellence in advanced techniques and patents.

Maintaining quality alone is insufficient to lead the competition. Superior patented techniques and exclusive domestic and foreign copyrights are also needed to increase a company's market share.

Most inventions start as solutions to specific problems in people's lives. Like people of early history, who rose to prosperity by simply claiming the land first, ideas must be detailed and patented in order for a company to utilize them for its competitive power.

[Innovation process]

The quality of helmet within the user's life

The president of HJC, Mr. Hong Wan-gi believed that "helmets are the most important safety precaution for motorcyclists. Because we are all vulnerable to serious accidents, helmets should not only be solid but also light and comfortable. Design and price alone do not lead to success in the helmet market."

Vivid colors and sleek designs are characteristics of motorcycle helmets because they promote life in the fast lane. As that is a primary attraction to motorcycles, consumers are first and foremost concerned with the design and appearance of helmets. Mr. Hong sought to manufacture helmets that were solid, vivid and most importantly conforming to this image. He used primary colors to produce various helmets that matched world major motorcycles like Yamaha, Honda, Suzuki, and Harley Davidson.

From concept to manufacturing, ideas are gathered to meet consumer needs. In 2002, HJC revealed their patented new helmet at the Best Patented Product Exhibition. It had a chin protector located in the front which can move up and down thereby allowing speaking, drinking, and smoking, without removing the helmet.

HJC also designed hydromechanical helmets to counter the problem of air resistance and to sharpen the image. The company also began designing for a wider field of vision to maximize user safety and ventilation.

Furthermore, HJC studied the human skull size and shape and helmets' reactions to them, in order to produce various helmet shapes.

From the conception to manufacturing, various ideas are gathered to meet consumers' needs and are considered within product development. HJC researchers repeat experiments thousands of times to develop lighter

and more solid materials.

[IPRS process]

Secure copyrights through continuously developing techniques

HJC currently holds 42 patents worldwide. HJC recognized that making a good quality product alone can not secure competitive power. Thus, HJC helmets passed the DOT (Department of Transportation) and SNELL, helmet safety tests, and also acquired the industrial standard approvals from authorities, such as the ECE (Economic Commission for Europe), JIS (Japanese Industrial Standard) and BSI (British Standard Institution).

HJC invests 10% of total sales to research and development and applies for more than 10 patents every year. These copyrighted techniques are the foundation by which HJC produced the number one ranking helmets in the world.

Quality inspection is a very complicated procedure because human lives are at stake. Accumulated through manufacturing helmets for 30 years, HJC's own techniques and know-how are a major reason behind HJC's competitive edge.

[Commercialization process]

Understand consumers' desires

The HJC helmet is the number one brand among motorcyclists. In a survey by America's motorcycle magazine, *Motorcycle Industry* 56% of participants named HJC as their favorite brand. Shoei following in second with 13%. Brand loyalty for HJC has steadily increased from 45% in 1999 to 53% in 2000, and 56% in 2001. In addition, more than 50% of consumers preferred to purchase HJC brand off-road helmets and sports bike helmets.

HJC has more than a 50% share in the worldwide helmet market. HJC's superior quality is highly appraised in comparison to the Japanese, Italian, and American brands. Exports account for 80% of HJC's sales. HJC leads in export profits among Korean small and medium businesses.

This success did not come without hardship. HJC rejected an OEM(Original Equipment Manufacturing) supplier in order to develop its own brand value. Unlike Chinese companies that depend on OEM, HJC eventually strengthened their brand value and went on to supply a half million dollars of products in 1985.

The greatest challenge in introducing a new brand into foreign markets is finding distribution channels. Due to the heavy capital required to establish and advertise stores in a foreign market, small and medium-sized businesses advertise use "selling agents." Selling agents, who sell products to wholesale business and retail stores instead of manufacturers, work individually and receive a 5 to 10% commission. The selling agent system removes the middle men and thus reduces cost 20 to 30%.

HJC entered the American market using selling agents. It quickly dominated 40% of the market and successfully launched its brand name, "HJC." HJC appointed 4 agencies in North America to stabilize price and trade. HJC researches market trends by meeting with buyers every two months and uses that analyses to develop new products.

HJC celebrated its 30th anniversary in November of 2002, a meaningful event since the company reached its sales target set ten years ago at 100 billion won. Total HJC sales in export alone was 72 million dollars in 2002.

Their new goal is 500 billion won in sales by 2010 with five motorcycle or race car helmets ranked number one in the world. To accomplish this plan, there will be an investment of 100 billion won for 10 years into research and development and training.

**Strive for technology development with entrepreneurial
spirit**

[Information technology industry sector : AhnLab.Inc.]

The general perspective on Korea's IT industry is very optimistic. It is true that the IT industry has a high failure rate, but considering investment efficiency, a high yield with little investment, none have more potential than IT. Ahn Lab Inc. believes in this basic principle of investment: High Risk-High Return.

The IT industry is viewed as Korea's growth engine, propelling the economy for the next 10 years. In the IT industry, Information Security is the most competitive sector, and AhnLab is taking a firm stand as the leading company in the Korean information security market.

In 1988, AhnLab developed Warp Engine which can diagnose and cure computer viruses. It secured a patent in 1998. From then on, V3 became synonymous with "Anti Virus" in Korea. In June, 2003, AhnLab obtained the patent for "a network connection device with the function of Hacker invasion detection" which enables a network interface to detect invasions without the host computer's loading problem.

As a result, AhnLab obtained internationally authorized check mark which is given to a company that provides 100% real time checking service. AhnLab is currently moving abroad after securing the Korean market.

[Innovation process]

Virus infected diskette cures developed

President Ahn Chul-su has a very distinctive background as a medical doctor. He developed V3 15 years ago. When he was completing his doctorate degree at the Medical School of Seoul National University, his diskette was infected with the virus called "Brain". He wrote an Anti Virus program himself which paved the way for his career.

This computer vaccine program, which at that time could only cure the Brain virus, was repeatedly upgraded and eventually the name "V3" was known to the public in 1991. V3 progressed to V3Pro in 1995, and V3Pro95 which supports Windows, and after many upgrades, it is now called V3pro2002Deluxe. Currently, there is a variety of vaccine programs such as ACS, the total security software, V3 Virus wall, vaccine for servers, and My V3 for online. The V3 products are sold in foreign countries as in Japan and China by the name of V3 Virus Block.

At first, V3 could block only one virus, but now it has developed to the level of detecting and curing tens of thousands of computer viruses worldwide. But viruses do not lag behind even the world's leading vaccine program.

[IPRS process]

Succeeded in getting patent for vaccine's core

technology

In 1998, AhnLab developed Warp Engine which can detect and cure computer viruses. It received the patent for it after the company was established in 1998. Warp Engine is the core technology of V3, and it played a crucial role for V3 to become nominated as one of the best products for the next generation, selected by the Korean Ministry of Commerce, Industry and Energy in 2001.

In addition, AhnLab received a patent for "a Network connection device with the function of hacker invasion detection" in June, this year. This enables network interface to detect viruses without a host computer loading problem.

AhnLab has an international certificate, received In Feb, 2003. V3Pro2002Deluxe obtained Check Mark which is the international certificate for vaccines, and in April, V3virusblock also received a check mark for the Japanese market.

Check mark is granted by WestcoastLab in England, and it is given to programs which can detect 100% of all virus in both real time and manual testing. The product with check mark is advised to maintain the level of quality through continuous testing since the product can only use the check mark logo while keeping the certificate.

Two products successfully received the certificate on their first trial. With the help of the international certificate which provides instant

recognition, AhnLab's penetration to the overseas market is expected to be facilitated.

[Commercialization process]

Understand customers' needs and respond to them immediately

According to the "2001 World Information Security Control Market" published by IDC, the global market search firm, the No.1 company in the global vaccine market is Symantec, with 54million dollars sales and 32.4% market share, No. 2 is NA(Network Associates) with 26.4% of market share and No. 3 is Trandmicro with 14.2% market share.

AhnLab was ranked 9th with 19.5 million dollar sales, and 1.2% market share. The world's market structure is somewhat different from Korea's. The size of the Korean computer vaccine market is about 40billion won. In the Korean market. AhnLab is no. 1 with 25billion won sales and 60% market share. The No.1 company, Symantec takes only 7-8% of the Korean market. The international vaccine is not dominant in Korea largely because of strong brand loyalty to AhnLab, a rare phenomenon in this competitive field.

At the end of 1999, people were frightened by the possibility of a Y2K virus at the turn of the century. Most of the vaccine companies promoted a vaccine to enjoy the special market demand caused by the Y2K situation.

However, AhnLab publicized a report stating, "No major problem is expected on 1st, Jan. 2000." It was a very dangerous decision for AhnLab, with a heavy amount of risk aimed against them in the event there was a problem, including cost of compensation and loss in sales. It was President Ahn's decision, the reasoning being to pursue that which would benefit consumers, not only to make money. He risked his own name which had become a brand name itself for the trust of his consumers.

President Ahn made V3 as a Freeware for most PC users. The V3 brand and President Ahn himself are now generating value that is not possible to be measured by money alone.

The importance the company gives to R&D is obvious by the fact that R&D staff is 50% of total employees and 20% of the annual turnover is invested in R&D.

Apart from CEO brand name and technology, there are other factors contributing to the success of AhnLab. They are quick response to the customers' needs and exceptional customer support service. After releasing V3Pro 95 for Windows in 1995, the PC environment gradually changed to the Network. AhnLab added Internet and network supervisory functions to the vaccine for PCs.

In 1998, V3manager was introduced for vaccines for companies. V3manager controls vaccines of client PCs from the central server. AhnLab also diversified its products range to password solution, and

firewall and still maintains its leadership in the industry. Quick technological support service for customer satisfaction also played an important role to stay ahead of international vaccine companies in Korea.

AhnLab started as a company specialized in vaccine, and is now reborn as a total security solution company. The target is to become one of the top 10 security solution companies by 2005. To keep up with market changes, expanding its business to total solution is one of AhnLab's strategies.

AhnLab is now focusing on the overseas market. It established a local branch in Japan in Feb, 2002 and in China, in March, 2003. The sales target of this year for China is 1.5 million dollars, and 4.5 million dollars for Japan.

Apply basic technology

[Life goods sector : Gewiss Korea]

"Waste can be a good resource." This phrase was proved by Gewiss Korea(GK) which is manufacturing Natural cosmetics, fertilizer, and medicine from the residue of wine production. GK's grasp of this potential opportunity can be the success point of its business.

GK holds a patent for the technology using wine residue. This residue undergoes several phases such as fermenting, PH control extraction and stabilization, to produce biocosmetics, biofertilizer, and biomedicine for the treatment of burn wounds.

This business was recognized as a new technology by the Korean government's Department of Industry and Resource, and it also became a model example of an environment-friendly agriculture technology which is itself a primary focus of the Korean government.

[Innovation process]

Bioferment technology for wine residue

The resources of GK's patent is based on the black grape residue like grape seed and skins. In almost cases, those residues are disposed of as waste. GK's founder, Mr. Yang Jin-seok's major was music. His life's direction changed when he was working for the "Gesmond Research Center," the biochemical and drug related research center based in

Switzerland. He started to work for the research center as a part-timer to support his university expenses while he studied chemistry. The experience in the production site would prove to help him greatly in years to come.

At that time, he learned that much of the nutrition of grapes is in the grape seeds and skins. He began to think how to utilize the residue of grapes which are disposed of after wine production in Europe.

He also analyzed the massive amount of grape-related data accumulated in Europe. That analysis eventually led to his success in making black grape skin toner G7, 100% Biofertilizer, and 100% "Bio cure" for burn wounds.

[IPRS process]

Diversifying products from one single resource

The reason behind the successful development of various products from this one technology was the intense effort in research and development by the Gewiss Biochemistry Research Center in Vienna. This center is the root of innovation that President Yang is always emphasizing. When the Soviet Union collapsed in the 1990s, the center hired 8 biochemists from Russia which spurred on the advancement of its technology and skill.

GK holds the following current patents;

Patent No. 0385455, Fermented extract material manufacturing technology for burn wounds

Patent No. 0373319, Biofertilizer manufacturing technology, utilizing 100%

grape residue extract

Patent No. 0341933, Biocosmetic manufacturing method (G7), utilizing 100% grape residue extract.

Among its patented products, 100% natural black grape skin toner is currently on the market. Unlike other skin care products, it is alcohol free and is, therefore, very safe with use on sensitive skin and also highly recommended for soothing stressed skin. "BIOKRAFT", a 100% bio fertilizer, produced via a different process from other fertilizers, hastens soil improvement and crop growth, and is pollution free.

Items ready for production in the near future such as a 100% natural wound treatment and a 100% natural animal food additive are in the process of application for patents. These patents like all others attained by GK are promptly registered and marketed to increase sales.

[Commercialization process]

Natural cosmetics image establishment - - "edible cosmetics"

GK penetrated the market when it initiated its use of a home shopping channel in Aug, 2001. When the product, after test marketing for 3 months, was first televised nationwide, 300 million won worth of RODEM cosmetics was sold in one hour. For a cosmetics with no brand name value, it was a notable event, and was also a good chance for a small to medium-sized company like GK to utilize this distribution channel to gain recognition from consumers.

On the first show, the hostess opened the bottle and swallowed the skin toner, shocking the audience proving that the product was made of

100% natural ingredients with no toxicity, and it does not harm to the human body. Since that introduction via a home shopping channel, RODEM cosmetics has taken 40% of the home shopping channel's cosmetics sales. It also set a home shopping history sales record of "1 billion won a day."

As a result of its popularity, GK has found alternative ways of marketing: door to door sales, sample distribution and creating an on-line consumer community named "RoSaMo". ROSaMo a name that means "the community that loves RODEM" has enlisted 3,500 members since its opening in March, 2003. The forum contains over 100,000 postings; the website boasts an average 7,000 visits per day.

GK also received Korea Internet Hit Product Award in 2002 in the on-line distribution sector, the home shopping or internet shopping mall, which was sponsored by the newspapers *Daily Economy* and *Chung-Ang Daily*.

President Yang Jin-Seok established GK in Vienna, Austria in 1988 when Korea was suffering from the IMF crisis. He co-founded 'Panis Angellicus' in Paris in 1994. GK has been manufacturing Biofertilizer and also importing RODEM cosmetics. RODEM is manufactured by Panis Angelicus.

While most business founders first establish their business in their home country and expand to the overseas market, president Yang established his business overseas from the start and later brought it into his home country. Currently, the Gewiss group affiliates are Gewiss Korea, Panis Angelicus, and Gewiss Vienna.

Gewiss Vienna is in charge of Biotechnology R&D and European marketing Panis Anglicus, based in France, carries out cosmetics R&D and production, and Gewiss Korea is in charge of the marketing for cosmetics to the Asian market as well as Biofertilizer production.

Biofertilizer has become the cornerstone for GK. GK completed the Gewiss Land project in cooperation with GyeongNam Province and Sa-cheon city. The project includes manufacturing and distributing organic produce by using Biofertilizer from a 300,000 pyeong farm. GK aims at producing high quality agricultural produce and strengthening agricultural brands by heightening the level of Korean agriculture's technology. It is hoped that Biofertilizer will revolutionize Korea's health food industry.

Build customer trust with brand recognition

[Life goods sector : Intarsia]

Intarsia is a recognized worldwide brand for quality socks. As a small-sized company, Intarsia found its road to success by continuously investing in R&D to build the value of its brand name.

In strengthening a brand name, a company must concentrate on all its aspects: product reliability, design, marketing, consumer protection, and others.

Intarsia focused on building brand name value from its inception, investing 12 billion won for R&D. Not to lag behind other sock manufacturers, the President himself went to Italy to buy new machinery.

[Innovation process]

Don't save money on R&D

After completing his college degree in 1981, President Kim expanded the small company he inherited from his parents into a sock manufacturing company. At first Intarsia supplied products to American and European companies under an OEM system, but while President Kim frequently visited many sock manufacturers in the world, he quickly realized the importance of having his own brand.

When he visited Milan, Italy, he saw Benetton's sophisticated products

and Blington's three dimensional socks. President Kim tried to find an embroidery loom manufacturer, and visited one in Brescia, Italy in 1983.

He learned to operate looms for 3 months, and spent 700 million won to purchase 24 looms under the condition that the loom manufacturer would not sell the same loom to another Korean company for the next 5 years. However, because Korean-made yarn was not suitable for the looms, President Kim had to return to Italy to adjust the looms to the yarn.

Intarsia tried to maintain the highest level of technology even though it was manufacturing under an OEM contract. Based on this technology, the new brand, Intarsia set sail in 1995. Intarsia means "delicacy" in Italian. President Kim decided on this name because he wanted to always remind himself of his experience with the loom and yarn which taught him the importance of maintaining high quality. After deciding on the brand name, he replaced all the old looms. Until now, Intarsia is the only Korean company which has new Italian looms for three dimensional embroidery.

[IPRS process]

Patent as an asset

Intarsia brought the skills of creating three dimensional socks to Korea by importing Italian looms. It established its own design center and invested more than 4 million won. However, difficult it was for the company, investment into research was never spared. For the development of Ins Bio, 12 billion won was invested for 6 years. After its

establishment, 10% of sales was invested into research.

Intarsia's research center developed the "world's first infra red emitter Ins Bio". Conventional infra red products are usually a powder type which is activated at high temperatures. However, Ins Bio is a liquid product with 90 % activation at normal human body temperatures, 35-37 degree C. If this material is applied to textiles, metabolism is increased due to the emission of infra red, antibiotic agents are activated, and odor is removed. It also reflects infrared and static light. Recently, the function to remove mites in houses was added.

Intarsia applies Ins Bio technology to socks, underwear, and golf related products and introduced a deodorant, "Ins Bio free." Currently, 80% of the deodorant market in Korea is dominated by the Japanese Febreze. However, while Febreze can only stop the odor for only 3-4 hours, Ins Bio Free can dissolve 94% of the cause of the smell. Intarsia is confident of soon taking control of the market.

With the passion for developing a new product and entering new markets, the fashionable underwear "Bash" was introduced in Dec. 2000. Bash is increasing its market share with sophisticated materials and a simple design concept. In March 2001, low priced socks, "Ever Intarsia," were introduced and "Intarsia golf" in June.

President Kim's policy is to pursue a proper margin by investment and as a result, he now has more than 200 utility models and patents. Most small companies say they cannot invest heavily in R&D, but Intarsia

succeeded based on the development of its technology. President Kim says if he could turn back time, he would invest even more in R&D. Ins Bio, the high efficiency new material Intarsia developed for 6 years, received a patent for its invention due to its wide applications advantage.

[Commercialization process]

Technology itself can not promote brand

Intarsia introduced itself to the market in Sept. 1995. At that time, the Korean socks market was under fierce competition from other Korean brands such as MDC, KJC, and foreign brands like Pierre Cardin, and Paulo Gucci. The colors of the products consisted of monotonous black, white and grey. Intarsia jumped into the market under the slogan "Socks are fashion."

Intarsia began using various distribution channels such as sales stands in front of department stores and promotional gifts for Children's Day in order to market their brand. Now, Intarsia has about 200 dealers nationwide. Export amounts to U.S., Sweden, Japan, and China are increasing daily. With 200 dealer networks including 70 stores, Intarsia is targeting to achieve 100 billion won in sales this year. It is an 80% increase from last year's 51.2 billion won.

Technology itself can not promote a brand. Intarsia is famous for its investment in promotion. They aired 7 TV commercials and signed a contract with a famous pop group for 1 year and hired actresses and

sports stars to launch "Bash."

Advertising and careful timing were major assets when Intarsia faced risk. When the sales dramatically decreased in 1997 due to the IMF crisis, they promoted with the slogan, "Korean brand paying no royalty fees." Animation advertisements were used to appeal to the younger generation. President Kim was on the advertisement and said, "I am confident [Intarsia] will remove this smell."

President Kim states that, " the most important value in a brand is human." Each and every item is produced to make human lives healthier and more comfortable. Intarsia is now claiming that their target is to make Intarsia the world's leading brand, contributing itself to the environment, improvement of human health, and creation of new cultures.

Utilize and succeed technologies in a traditional industry

[Life goods sector : Three Seven]

Although there are countless imports, we all use Korean-made nail clippers.” This was made possible by the technological development and new ideas of Korean companies. Three Seven's confidence in their technology lies in their effort and ability to attain skills while working with designers from many countries.

Among the companies to which the government provided the top quality product awards, many were leaders in their industry competing to market their conventional items via innovative developments. Three Seven, which holds 50% of the world's nail clipper market is one of the cases in which conventional items proved successful in a world where people believed only high-end items could be successful worldwide.

[Innovation process]

Select items with competitive power

Three Seven was established in 1975 and has been developing nail clippers for 29 years. The company's mission is to "bring beauty and health to the world by producing good quality products."

Three Seven is manufacturing nail clippers, openers, and manicure sets

and now its annual turnover is 30 billion won. It is exporting to 90 countries throughout the world and is actually more popular in foreign countries than in Korea.

Three Seven's success has been largely due to the continuous effort to research and develop high quality products and advanced designs. The most important part in the nail clipper is the blade of the clipper and Three Seven is confident that their heat management and gilt technology for the blade is one of the best in the world. Three Seven has been heavily investing into every one of its product and has developed good quality products with creative designs.

President Kim Hyeong-gyu started to develop nail clippers when he realized that all the people in the world, regardless of nationality or ethnicity, use nail clippers. To match this diverse market, he sought to expand the designs of nail clippers. As a result, he made nail clippers with hour glass shapes and even lotus flower shapes, quite a shock compared to the half moon shaped blade with a lever, to which customers were accustomed. In addition, Three Seven introduced a set of clippers among which users can choose many different sizes and designs according to their own nail shape. It also introduced various designs of nail clippers to the market to change people's concept about nail clippers. Of course, a high quality standard was something that the company had to achieve.

Three Seven also developed about 10 different beauty tools such as ear-picks, and tweezers and put them into a cylinder shaped kit. By

doing this, the company contributed to changing people's concept of beauty and personal care tools. This beauty kit prevents the loss of the small beauty tools, and its pleasing design made it possible to be displayed along with decorative cosmetics. The transformation of the kit's shape from hourglass or box to a lotus or crucifix caught the attention of the market and quickly placed the kit at 50% of total sales.

[IPRS process]

Stress the trademark

"Korean David defeated American Goliath." The media used this phrase when Three Seven won the trademark dispute with the American company, Boeing over trademark "777" in 1998.

In 1995, Boeing took a firm stand. Boeing's argument was that they registered the trademark in the U.S. prior to Three Seven, so they would allow Three Seven use of the trademark, but Three Seven had to pay royalty fee. However, Three Seven actually used the trademark from the 1980's within Korea as well as overseas. At that time, many people showed their support for Three Seven for they thought the dispute was like "throwing eggs onto a rock."

When Boeing demanded a royalty, Three Seven immediately filed a lawsuit with the U.S. patent office to cancel Boeing's trademark "777." When Boeing realized Three Seven would not yield, Boeing withdrew its position and both parties agreed to use the "777" trademark. To compromise with Boeing, Three Seven agreed to alter its trademark by

drawing an oval shape around the "777" mark and write "Three Seven" under it to differentiate it from Boeing's trademark. These events illustrate that Three Seven even though only a small company can wield significant power.

Since Three Seven settled the 3 year dispute with Boeing in 1998, it has 1500 times more annual turnover and 400 more employees. Currently, Three Seven holds 120 intellectual properties such as patents and utility models. In March, Three Seven signed a contract to allow use of its trademark by a Hong-Kong based distribution company, Hanayaka. With this contract, Hanayaka could use the "777" and "TOUCH-Q" trademarks, agreeing to pay 8% of manufacturing cost to Three Seven for 5 years.

[Commercialization process]

Expanding market by diversifying product range

Three Seven's annual turnover is now more than 30 billion won and is the leader in the world nail clippers market. Recently, Three Seven has been diversifying its products to metal tools and beauty tools while keeping its No. 1 clipper market share. It's strategy is to expand its market to low end items by developing them with its high technology. Three Seven developed metal tool manufacturers and contracted with them under OEM for metal tools, kitchen knives and army knives, as well as for beauty tool products. With this marketing strategy, Three Seven has been able to heighten their high quality brand image.

Three Seven's greatest assets are consumers trust and "777" brand name loyalty. These two factors discourage other companies from challenging 'Three Seven'. To make a nail clipper production line, 40 different processes and stations and 4 billion won of initial investment are required. Labor intensive steps are necessary, which also discourage companies in developed countries and those in developing countries from entering this business.

Based on a solid infrastructure and technological advancement, Three Seven is now recognized as the world's leading brand. Three Seven is proving that small and medium sized companies with low-end items can compete with under developed countries like China and their low labor costs, if they are equipped with advanced technology and attain brand name loyalty.

Cultivate a new field with an invention

[Life care electric appliances sector :G-INTEK]

"The CoClean Rhinitis cure supplementary machine"; "Seven Liner for beautiful legs"; "Eyecurl for curly eyelashes." These are some of the products G-INTEK created in order to succeed in a field where medicine leaves off.

Through constant research and analysis of consumer needs, G-INTEK develops life care electric appliances that suit people's beauty and health needs.

Due to higher life style standards and longer life expectancy, people are investing more and more money into health and beauty. G-INTEK commercialized new idea personal care products and succeeded.

[Innovation process]

Patent was obtained when problem was addressed

G-INTEK's president Seo Jeong-ju was working in the import department of a civil-engineering company. His friend, who was importing products for women, asked him to help his business. Soon thereafter, he became interested in developing a new product, he crystallized his first idea. Many women felt uncomfortable with eyelash curlers because they were cold and eyelashes were easily pulled out.

In finding a solution to this problem, he invented "Eyecurl" which perms the eyelashes with heat. With no other competition in the market except low quality, manual curlers, President Seo pushed forward to introduce the item to the market.

The initial entry into the market in 1996, was met with negative feedback. Some women burned their eyes while curling their eyelashes. The company was forced to recall and discard 100,000 product for 300 million won in losses.

Nevertheless, President Seo was determined to perfect his product. After many trials and errors, he developed a design by which the heated part could not contact the skin.

[IPRS process]

Obtained trust of the product

After 'eyecurl', G-INTEK started to develop rhinitis cure supplementary machine "CoClean". He understood that many people suffered from rhinitis but the disease could not be easily cured.

With the success of their first product, "Eyecurl", which was exported with a 10 million dollar profit to Japan, China and the U.S. and received patents from 18 countries. G-INTEK gained brand name recognition and was able to easily penetrate the market with "CoClean." The rhinitis supplementary cure sold 210,000 units (about 8 billion won) in 3 months.

G-INTEK started to focus on life care electric appliances after the success of those two items. In the span of a few years, G-INTEK has attained 120 life care electric appliance-related patents in Korea, with 70 of them as overseas patents. This is an incredible achievement in Korea where life care electric appliances market was so undeveloped.

[Commercialization process]

Reflect the user's opinion

G-INTEK developed the world's first small life care electric appliance. The products of G-INTEK are the eyelash curler "Eyecurl", the rhinitis supplementary cure machine "CoClean," and the leg slimmer "Sevenliner slim."

Leg slimmer 'Sevenliner slim' has been very popular among women, and sold more than 100,000 units through a home shopping channel. G-INTEK's first product, eyelash curler Eyecurl hit a record no. 1 sales among beauty products in Sony Plaza, Japan. In addition, Coclean rhinitis cure machine for household use received the World's Best Product Award by the Korean Ministry of Commerce, Industry and Energy. CoClean is the only existing treatment machine for rhinitis.

The secret of G-INTEK's success lies in understanding customers' hidden needs and expectations and fulfilling them. Consumers want a cheap price, good quality and good design. G-INTEK is focusing on the products which are closest to what consumers want.

When a company produces the world's first product, it is very difficult to estimate market demand. President Seo needed to make a bold decision regarding the quantity produced. Thus, G-INTEK met with a "consumer appraisal group" made up only of women and listened to their opinions in order to reduce its margin of error.

In Oct., 2001, G-INTEK introduced to the market Sevenliner which is the predecessor of Sevenliner Slim. The name was made for this leg slimmer because the legs are the most beautiful when their angle is 7 degrees. More than 5 billion won was invested for advertisement and R&D. However, the products sold only 2,000 units, and it seemed the company was at grave risk.

At that time, the consumer appraisal group advised to remove the sole patting function and the ankle rotating function as well as decreasing the product's weight and reducing the price by half. Their reason: women value the beauty of legs not the health functions. As a result, Sevenliner Slim was produced and the sales have been very successful.

G-INTEK entered the Japanese market last year. CoClean passed the test of Japan's Ministry of Health early this year, and was acknowledged as the first imported Korean household medical care machinery. In addition, Sevenliner Slim began selling through a Japanese home shopping channel from the end of last year.

G-INTEK's success created confidence that life care electric appliances can be a value added future business model. President Seo stated, " The

life care electric appliances market is a field in which you can have endless new ideas. I am always developing products, just as when I first started this business."

Look deeply into customers ' taste

[Distribution Sector : HESED Technology Corp.]

Under increased competition, products must meet the needs of customers, and production systems must meet market demands to survive. Ability to quickly adapt their products and production systems to changing demands is a key advantage of small companies.

Franchise businesses have a high failure rate, reportedly 99%. The understanding is that 90% of the franchises are struggling to meet labor cost and 10% of it is at break even, and only 1% is successful.

Korea's Hesed grew quickly into a franchise company. However, Hesed succeeded because it turned the business everyone knows into the business nobody can copy.

[Innovation process]

Accumulate know-how about the franchise

President Gang Seong-mo first worked for a franchise business when he was 27. He started in a noodle franchise company which did not seem very special. However, several people joined the company and bought the franchises within a month. Money came in so easily that Mr. Gang was certain this was what he had been looking for.

Franchise business was not very active at that time. President Gang wanted to place his hopes in this business. He immediately went to a big bookstore, and researched franchise businesses. There, the only book on franchising would rebuild his business plan: The history of *McDonalds*

For the next 10 years he gained experience in all sorts of franchises. He worked as a manager of a noodle franchise, a bakery, a brewery, and food distribution companies. He was building the knowledge that franchise company owners should know, such as shop and menu development, making production manuals and increasing franchise shops.

[IPRS process]

Register even minor ideas for intellectual property rights

The core of Hased's success lies in innovative ideas. However, ideas must turn into action in order to succeed. President Gang experienced different types of franchises for 10 years and continuously kept memos about customers' responses. His memos were about purchase reasons, time frames, customers' habit, and other points. As a result, he learned that customers' behaviors are different from franchise to franchise. Using this analysis, President Gang created the Col-Pop-Chicken container.

Mr. Gang was interested in containers while he was running a chicken franchise, BHC. He would think "wouldn't it be nice if the snack and beverage could be put in one container". And that idea developed into Col-Pop-Chicken containers. It is now registered as a utility model in Japan and China.

Although most of the beverage product line is not exceptional, fruit So-ju cocktail is registered as a patent. Snova, artificial snow, cost him 2 billion won, and is now registered as a utility model. Hesed built a room with artificial snow inside the coffee franchise, Whoever, and applied for patents in 8 countries. Apart from this, he has applied for more than 40 patents for various ideas.

[Commercialization process]

Trigger consumers ' interests with fresh ideas

Hesed's first brand, BHC owed its success to Col-Pop-Chicken containers. BHC now operates 600 franchise stores after just 4 years since its establishment.

BHC's decision to use only children for their marketing was distinctive. Col-Pop chicken with which children can carry a snack and beverage together on their way home after school was an instant hit. Empowered by Col-Pop-Chicken, BHC invented the double straw which allows two people to drink simultaneously. This idea instilled in children the image that BHC was a "funny fast food."

Recently, Hesed opened a beer franchise QZ tavern(hof) targeting women which was an instant success. QZ which means "Queen's Zone," developed its marketing concept "Beef franchise that women love" by focusing on female university students and business women, and providing a comfortable environment for them to enjoy and have meals.

If women like the place, men will have to like the place as they are accompanying their friends. That is the strategy of Hesus.

The interior was made like a cafe, with blue and green colors. Tables, beer cups, and accessories are very feminine. In addition, in the ceiling corner where hundreds of different kinds of beers are stacked, there is a "snow machine" where people can see snowy scenes and touch the snow. Because artificial snow is always falling from the ceiling, beers are kept cool all the time and people can take beers buried under the snow. To develop this "Snow Bar", Hesus invested 2 billion won.

The differentiation factors of QZ are menus for customers who enjoy an interesting and pleasurable environment, rather than only drinking beer. There are low calorie side dish sets, "multi cups" for customers to take out beer and side dishes together, and even extra set menus that serve 285cc of beer which is an amount people feel safe drinking without becoming intoxicated.

Creative menu has contributed a lot to QZ's popularity. Fruit Soju which is a cocktail made with Soju in a fruit was registered as a patent. Creativity and exclusivity were obtained.

Internet broadcast within QZ taverns has been tried. All the taverns were connected in real time and provided online events for customers. Quiz events, and birthday and lovers' messages are on the big screen. The intention was to make an environment where family or lovers can come together to have fun. Also, QZ installed a cooling pipe bar in front

of the shop which shows the brewing in progress.

Hesed was established in 1999, and expanded its market to Japan in 2000, and U.S. and China in 2001. Currently, Hesed expanded to 9 countries with 25 shops. Yoon Se-young, Marketing Manager of Hesed Korea Corp, stated, "The number of overseas taverns are the greatest among Korean franchise companies."

Hesed provides market analysis and teaches staff recipes by sending out at least 2 times trainers from headquarters to the newly opened shops. Overseas main menus are the same as in Korea, but side menus are adapted to local taste, which has received rave reviews from customers. Without localization of chain shops, the customer base is limited to the Korean customers in the country. If the company insists on having the same format as Korean market, the market is substantially decreased.

For a franchise company to survive, 4 conditions should be met: Popularity, Creativity, Continuity and Exclusivity. Hesed believes that meeting these requirements has made it the successful company.

Currently, Hesed's franchises include its chicken franchise BHC, 600, Coffee franchise, Whoever, and Hesed is targeting to have 400 QZ franchises in 2 years.

It is time consuming for Hesed to introduce new products and franchises. This is because Hesed never copies other company's ideas.

Everything from a shop's interior and menus to promotion events, accessories, and product development are the result of the company's own creation. Business people from the same field can visit shops Hesed is introducing to the market to learn from them. Hesed opens the shops to everyone because they are confident nobody can copy it.

A chicken, coffee and beer franchise leader, Hesed, has indeed taken the business everyone knows and has made it the business that nobody can copy--that is the competitive edge of Hesed.

Compete with foreign brands with high quality

[Home appliances sector : JOAS Electric]

Not many small and medium-sized companies can reach customers with a finished product with their own brand or label. Increasing brand image by means of high quality and setting up a distribution channel are very demanding even for large companies. However, JOAS Electric is one small company that is building up its name value in the finished-home appliance field.

Though it only seems to provide a simple solution to a simple problem, the prices of good shavers can reach more than 300,000won with added value sometimes better than major electrical appliances like TV's.

More than 50% of the Korean shaver market is taken by foreign brands, such as Philips and Braun. JOAS has successfully competed with stand them with reasonable prices, top quality, and A/S network equal to those large companies, a tremendous feat since other than Japan's National, no local brand shaver has ever survived the competition with international shaver companies.

[Innovation process]

Cost cutting by localizing core parts

In many respects, the most important parts of a shaver are the blade and the net. The blade should cut hair as thin as 0.07 mm. The net should be very precise. If one hole among 15,000 net hole is blocked, the hair is pulled out without being cut. Therefore, the defect rate should be zero.

In addition, the net touches the skin directly, so it should feel smooth as well as thin and strong. Though shavers may look rather simple, they have to satisfy all five senses of a man.

Oh Tae-jun, the President of JOAS, first began working with shavers when first employed at a company following high school. The company at that time imported toys and electrical goods from Japan and Hong-Kong and assembled them for export to the U.S.

He was involved in the development, manufacturing, and assembling processes of electrical goods. He was especially attracted to electric shavers because they required a higher level of technology than other electrical goods; they are a product not everyone can make.

Because Korea did not have highly advanced technology and precision to meet all the necessities for an electric shaver production, President Oh had to research and develop the skills himself.

As a result, he developed the idea that there was potential in the market if a company produced various products in small quantities, whereas international companies would mass produce them. JOAS

electronics decided to replace foreign technology with its own and started to focus on research and development.

President Oh continued to study and develop technology for JOAS. He received assistance from world prestigious companies, attaining information about the core technology. After 10 years, the technology he developed was ready to compensate him for his effort.

[IPRS process]

Core technology was independently developed

JOAS electricians believed that technology is the key to win in the competition with international companies. As a result of this effort, it developed a shaver with LCD, and introduced the water proof shaver with 3 blade heads. In conjunction with National Co.(Japan), it created the technology by which "high precision plate grinding technology" is applied to shavers.

Last year, JOAS carried out the project called "the development of a combined wet and dry electric shaver and trimmer" together with Korea Technology Quality Association. Currently, JOAS has 85 patents and utility models, 54 designs and trademarks, and 6 international rights. In addition, it obtained European CE Safety Standard, UL Standards for Safety, VDE from Germany, and ISO 9001 for the first time in Korea as a shaver manufacturer.

[Commercialization process]

Capture customers with a high quality product

President Oh says he feels pity when Korean products recognized in foreign countries are not accepted by some Koreans just because they are Korean products. For instance, some Korean consumers blame Korean shavers for pull out hairs, but blame themselves when using a foreign brand shaver. As a Korean national manufacturer, overcoming such consumer prejudice was more difficult than developing new technology. President Oh believed that the main way to abolish consumers' negative concept about a Korean product was to maintain high quality.

JOAS entered the foreign market before they penetrated the Korean market because preferences for foreign shavers were too high in Korea at that time. JOAS' strategy was to establish name value based on quality as an OEM supplier and then began entering the Korean market. JOAS supplied components to a well known brand, Babyliss, and thereby received international recognition for its technology.

JOAS is supplying hair cutters to Babyliss and Con Air, under OEM contracts and the products are sold at similar prices to Philips and Brown products. The quantity supplied surpasses foreign company units.

Currently, JOAS is supplying more than 1.5Million units to Babyliss of France, Con Air of the U.S. and Doggy Man of Japan, and also exporting to 40 countries including U.S, Europe, and South east Asia with its own name under OEM contracts.

While foreign electric shaver companies were focusing on the sales of expensive products and on their name value, JOAS strategy was to gain market share with low and medium-priced models.

JOAS produced the middle-price range brand JOAS, and the low-price range brand IFREND for differentiation and supplied new products to the market to compete with China's low price products. Recently, to compete with well known expensive foreign brands like Phillips, Braun and National, JOAS introduced a higher quality brand, HEREX.

Last year, JOAS achieved 20 billion won turnover while competing with international brands in the Korean shaver market, and took 30% of that market share.

JOAS established a nationwide A/S network and has successfully built consumer trust, which is very rare and difficult for a small and medium-sized company. Now, there are 8 A/S centers in Korea's 8 large cities, and plans to increase 2-3 A/S center per year are under way.

JOAS' A/S response period is 4 days in the regions outside Seoul and its satellite cities, and 1-2 days in the Seoul metro area. It is nearly identical to large companies' A/S period. Since international companies contract A/S to local companies or dealers, JOAS' ownership of its own A/S network is a significant competitive edge.

In 2001, JOAS felt the limit of its growth with only one item, and quickly diversified its product range to small home appliances including

hair dryers, fans, vacuum cleaners, coffee makers, air purifiers, and other products. It also entered the pet market.

In addition, JOAS works with cosmetics distributor Cosline and has thus a diversified sales network as well as increased sales of shavers for women and hair dryers. JOAS still believes that the life of the company depends on the constant advancement in technology and invests 15% of profits into research and development.