

# **Toynbee's Philosophy of History Adapted for Business Management – A Case Study and Theorization –**

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## **1. Introduction**

Arnold J. Toynbee(1889-1975), in his *A Study of History*, put forward a philosophy of history based on an analysis of the cyclical development and decline of civilizations. Toynbee examined the rise and fall of 26 civilizations in the course of human history, and concluded that civilizations rose when the leaders, in his own words: “creative minorities,” “responded” successfully to “challenges,” and declined when the leaders stopped responding creatively. Unlike Oswald Spengler who, in his *the Decline of the West*, saw the rise and fall of a civilization as a natural life-cycle process, Toynbee did not see the death of a civilization as inevitable. He saw the rise or fall of civilizations as depending on the success or failure of the leaders’ “response” to the “challenges.” In other words, a civilization can last as long as the leaders continue to succeed in responding to successive challenges.<sup>1)</sup>

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1) Britannica, Encyclopedia. CD. Multimedia Edition, International Version. 1998.

## **The Objective and Methodology of Research**

The objective of this paper is to adapt Toynbee's philosophy of history for business management and develop a theory to explain the rise and fall of business corporations. It would be inaccurate to view business corporations as like civilizations. Thus, this paper will not try to make a wholesale analogy from history to business. This paper will only adopt the central concepts from Toynbee's philosophy of history, such as "challenges," "responding," and the "leadership of creative minorities," and adapt these concepts for its business version. Using this adaptation, this paper will put forward a philosophy of management to explain the rise and fall of business corporations in the course of time.

As for research methodology, this paper will rely on logical reasoning and elaborate analysis of cases. Logical reasoning begins with figuring out what could be the business version of the term "challenges." Toynbee used this term to mean the problems that can be threats to the survival of the civilization. This paper identifies two types of categories of the "challenges" that can threaten the survival of businesses. The first category of the challenge refers to the situation when a company, for some reason, finds itself already in a crisis, and needs to invent a way to escape from the crisis. The second category of the challenge refers to the situation when a company feels a change in the environment that can potentially threaten the future competitiveness of the company unless properly responded.

This paper will develop a formula in the form of mathematical inequalities for business leaders to refer to in order to "respond successfully" to the "challenges" that arise in the course of time. Finally, this paper will identify three basic traits that managers need to possess in order to recognize the "challenges" that come in the form of environment changes.

## **2. Background of the Case of Nongshim**

On October 18th, 2001, Mr. Bertrand Pointeau, a managing partner of Bain & Company, presented his research paper on

Korean corporations at the 2nd World Knowledge Forum, sponsored by the Maeil Business Newspaper in Korea. This study identified what he calls "sustainable profitable growth companies," which fulfill the four criteria of (1) real revenue growth larger than 5.5%, (2) real net profit growth larger than 5.5%, (3) average annual total shareholder return larger than the cost of equity, all during the period of 1991 through 2000, and (4) annual total sales revenue larger than 1 billion US dollars. Mr. Pointeau announced that only four companies, namely Samsung Electronics, SK Telecom, Samsung Fire & Marine Insurance, and Nongshim made the cut. This announcement graced the first page of the Maeil Business Newspaper on the following day, and economists were surprised to find out that a company that produced such a trifling product like ramen was one of the top four businesses in Korea. Brief financial data about Nongshim are given in the appendix of this paper.

Nongshim, founded in 1965 as a small business, continued to grow by producing and distributing ramen as its primary product. Ramen, first commercialized in Japan in 1958, is a convenience food item that consists of noodles fried in oil, and dehydrated soup in a granulated form. Ramen was first introduced to Korea in 1963 by Samyang Foods. Because it allowed people to have a whole meal at a relatively low price during times of economic hardship, and because there was no need for side dishes or washing dishes afterwards, the demand for ramen grew more than 30% each year in Korea. As ramen became a popular product, many companies jumped into the ramen business following Samyang Foods, and Nongshim was another one of the latecomers to the game. However, since ramen is a low-cost product, only the leading company that already controlled 80% of the entire ramen market was able to make any sort of profit through the economy of scale. Consequently, the latecomers all suffered losses. Nongshim continued to lose money for 4-5 years due to its poor market share, and even the survival of the company itself came to be in question.

In order to overcome this crisis, the founder and CEO of Nongshim, Mr. Choonho Shin, and his executives were in a desperate need of something to save the company. They tried to

develop new products that can keep the company alive. Fortunately, one of Nongshim's new products resulted in a phenomenal success to resuscitate the company. Thanks to this success, even though all the latecomers other than Nongshim went out of business, Nongshim continued to remain viable. By the mid-1970s, the only two companies in the Korean ramen market were the number-one market-share holder Samyang Foods, and Nongshim trailing far behind. Now let us examine how Nongshim managed to escape from the crisis.

### **3. Responding to the First Category of the Challenge**

Since the leading company Samyang Foods already controlled 80% of the entire Korean ramen market, Nongshim concluded that a head-on collision using the single product was not the way to go. Instead, Nongshim came up with the idea to try to resuscitate the company by developing a product that was not ramen, but still could use the distribution channel in common with ramen. If this new product succeeded and brought in money, the profits could be invested in improving the quality of the ramen to increase its competitiveness, which would then lead to a larger market share that would resuscitate the company. The distribution channels of ramen in those days included agencies that sold the products either wholesale or retail through a contract with the company, supermarkets, and small stores. These places also sold cookies, crackers, and fried donuts, all popular snacks among children.

Unlike adults, children, who are still growing, do not feel satisfied with three meals a day. So children enjoy snacks when they are studying or at play. Nongshim selected children as the target consumer for its new product, and started studying what the most popular snacks were. At the time, children enjoyed popped rice, made in a popping machine on the streets by vendors, and snacks that they could buy in stores, such as donuts fried in oil, and cookies with a high sugar content. According to the study by Nongshim, eating too much greasy snacks fried in oil led to stomach troubles and diarrhea. Also, cookies tasted sweet, but were expensive, considering the economy of the times, and the high sugar content had the

disadvantage of causing cavities and poor appetite in children. In contrast, popped rice did not include any oil or sugar, and therefore no undesirable ingredients for children's health, and since it was of 100% grain, it was considered beneficial for the health of growing children.

After considering these facts, Nongshim decided to mass-produce a popped-rice-type snack in factories, which had until then only been produced in small-scale on the spot by street vendors. But while the most popular popped snack was popped rice, the Korean production of rice did not even reach 60% of the national consumption. The Korean government had been importing flour from the United States, trying to encourage the consumption of flour-based foods. Nongshim decided to take these conditions into account and produce a popped snack with flour as the main ingredient. The only question was; would the children indeed like the flour-based snack as much as popped rice? So Nongshim decided to add another ingredient to the flour to create a new taste that would be better than that of popped rice.

Nongshim's development team went around countless restaurants specializing in flour-based foods within Seoul, to find the ingredient that would be the perfect match with flour. After several days of searching, the team discovered that the fragrance and taste of "prawn soup noodles" was perfect for the snack they were developing. Fortunately, prawn was abundant in Korean fisheries, and it already had a national image of being tasty as well as nutritional. Therefore, Nongshim decided to develop a flour-based snack including prawn as an ingredient.

#### *Collecting Technological Information*

So the basic concept for a new product was formed, but the problem was the production technology to make it into an actual product. Nongshim, which had only produced ramen so far, did not know anything about how to make snack foods. Nongshim decided to visit foreign snack markets around the world to collect technological information. After purchasing snack foods made by the popping method in Japan, Nongshim searched for machinery manufacturing companies that could make the necessary equipment for their venture. After much hard work, the company obtained information on a popping method that

uses salt as a heat-transfer medium. This method, called parching technology, cuts up dough made from flour (containing crushed prawn) into small pieces, dehydrates them, then rotates them with salt heated up to 200 degrees Celsius in an oven to obtain a homogeneous expansion with a crispy texture. Nongshim ordered a parching machine from Japan and started experimentation. However, test production using the machine did not produce the desired product. Nongshim even invited and discussed the problem with the technical staff of the machinery manufacturing company, but since they were only the makers of hardware, they did not know the detailed know-how for making snack foods using the machine properly. While this know-how could be obtained by a licensing collaboration with a snack manufacturing company, Nongshim did not have the financial capability to pay for them.

#### *Continuing Experiments*

Nongshim decided to discover the know-how involved in snack food production through searching experiments by in-house researchers. All through the experimentation the parching machine produced countless different types of inferior products, depending on the meteorological conditions such as ambient temperature and humidity. Some were not popped at all, some were not popped enough, and there were even some that were burnt from too much heat. For each inferior product, the researchers conducted countless experiments to find its cause and how to eliminate the problem. Through these experiments, the researchers found that the homogeneous expansion of the pieces of dried dough depend on the following four variables: (1) the amount of protein in the flour used for the dough, (2) the amount of moisture remaining in the dried dough that is to put into the parching machine, and (3) the temperature of the salt, and (4) the time spent in the parching process. The research team resolved to find the optimal values for these decision variables through searching experiments. Remembering the story of Thomas Edison who finally found the material for the filament of the light bulb after thousands of experiments, the researchers continued to experiment tirelessly, sleeping by the machine at night, disregarding even Sundays and holidays.

The flour expended during these experiments amounted to

more than 80 truckloads at 4.5 tons each. The cost was a difficult burden to bear, considering the financial situation of Nongshim at the time, but Mr. Shin, the founder of the company, continued the material and emotional support. On December 1971, after more than a year had passed, the long-awaited new product, the popped flour snack, was born and christened "Sae-woo-kang" (Prawn Crackers). In Korean, "sae-woo" means prawn or shrimp, but the last syllable of the product, "kang," has no particular meaning. The final syllable was added because it was easy to pronounce, even for three-year-olds. It is said that the hint for the name came from Mr. Shin's (then) three-year-old daughter. When singing the song "Arirang," the child was unable to pronounce the last syllable of the repeated word in the song, "rang," so sang "arikang, arikang" instead. Prawn Crackers, which was tasty without containing significant amount of sugar and oil which laid undue stress on one's digestive system, became a hit with child and adult alike.

#### *Platform for the Rebirth*

The success of Prawn Crackers was immediately shown in Nongshim's sales figures. The total sales of the company increased by 350% within only 3 months of developing the new product. While the rotation period for accounts receivable had been about 3 months, it was reduced to about 20 days on average after the advent of Prawn Crackers. This was because most of the transactions for the highly popular snack were made in cash. Some buyers even begged for Prawn Crackers, carrying their cash in advance. In Korea in the 1970s, the practice of selling popular items in tandem with less popular ones was possible and in vogue. So Nongshim sold one box of Prawn Crackers only if the buyer bought five boxes of ramen as well, and consequently the sales for ramen increased as well. At that time, if a truck carrying Prawn Crackers started for a regional office, more than ten bicycles could be seen frantically following it. They were retailers who were following the truck on bicycles to lay their hands on the Prawn Crackers as quickly as possible. If they did not have the popular Prawn Crackers, the retailer could lose the patronage of his juvenile consumers.

Thanks to the success of Prawn Crackers, Nongshim was able to develop other new products, and could invest more money for

the infrastructure and quality improvement. After the arrival of Prawn Crackers, different snacks using the same ending syllable 'kang' such as "Gamja-kang" (Potato Crackers, December 1972), "Yangpa-kang" (Onion Crackers, August 1973), and "Goguma-kang" (Sweet Potato Crackers, December 1973) were introduced, starting the "Age of Kang" in Korean snack food history. Thanks to the continued improvement in quality, Prawn Crackers is still a bestseller among Korean snack foods today, even after 30 years.

#### 4. Responding to the Second Category of the Challenge

Nongshim began to invest the profits from Prawn Crackers to raising the quality of ramen and increasing its distribution channels. As a result Nongshim's market share in ramen rose to 30% by 1975. It was the time when the nation's total production of rice (Korea's staple food) was less than 60% of the total consumption, and hunger was widespread. During these hunger-prevailing days ramen allowed the poor to take care of an entire meal at a cheap price, and consequently ramen consumption continued to grow about 30% each year. Then, a research project undertaken by the Korean government to develop a strain of rice with high yield, finally bore fruit. In 1977, the rice strain I.R. 667 (International Rice No. 667), called "Unification Rice," solved the food shortage in Korea, and the total production of rice finally surpassed the demand, to eventually lead to overseas exportation.

Also, the national income level rose as the result of the economical development that the government had been promoting. The time had passed when people who wanted rice but couldn't afford it ate ramen as a substitute. This development was a serious threat to ramen producers. While the leading producer of ramen, Samyang Foods did not pay much attention to this change, Nongshim, which was the number two producer then, saw it as a grave challenge to the future of ramen. Nongshim wanted to design a response to this challenge. Nongshim started to use logical imagination. It was Nongshim's logic that in times of hunger, ramen's main value was to fill an empty stomach, and so the *center of value* that the consumer felt



for ramen was in the noodles. However, Nongshim imagined that as the national income increased and rice was plentiful, ramen must now attract the consumer with its own unique taste. The logical conclusion that Nongshim arrived at through imagination was that the central value of ramen should be found not in the noodles, but in the soup. Foreseeing such a value migration, Nongshim decided on designing to improve the quality of the soup.

#### *Improvement of Soup Quality*

To design the improvement of soup quality, Nongshim decided to reexamine its manufacturing process for the ramen soup up to that time. In the case of "Beef Ramen," the production process began with taking beef and boiling it in an industrial-size pot for a long time to make it into a broth. After this process, spices such as red pepper, garlic, black pepper, etc. were added in powder form. When these powders absorbed the broth, a semi-solid state resulted. The semi-solid soup was then divided into several wide and shallow vessels, where it was exposed to heat of 300 degrees Celsius, for dehydration. The resulting intermediary goods from the dehydration were made into granular form by the factory mill, which was then packaged as the granulated soup for ramen.

While passing through the boiling, dehydrating and heating processes, most of the nutrients were destroyed, and the flavor and taste lost as well. To overcome such difficulties, Nongshim collected information on manufacturing granulated soup, from the U.S., Japan, and leading nations in Europe. Fortunately in Germany, Nongshim obtained information on breaking down foods using enzymes, then dehydrating it within a vacuum chamber. After consulting a firm that manufactured the machinery for using this technique, Nongshim decided to implement it. Nongshim constructed a new factory in Anseong, Gyeong-gi-do Province, and started production in 1982 with the new machinery. The taste of the soup made using the new technique was in a different level from the previous method. To connect this breakthrough in quality to product differentiation, Nongshim decided to name this new product "Anseong Tangmyeon," a name that excluded the word ramen. The consumer response showed instant success, and the demand for ramen

that had been in a lull since the success of Unification Rice, began to rise again to an annual growth rate of 30%.

#### *Response to the Rise in the National Income Level*

Nongshim ran into yet another challenge stemming from the rise in the national income level. It is our experience that with a rise in the income level, the consumer will want more luxurious products. This fact was manifested in the ramen market of Japan, whose economical development was ahead of Korea. Starting in the early 1970s when the Japanese national income level had reached the \$1600 mark, the demand for ramen packaged in bags started to flag. As a response, the Japanese ramen producers developed a ramen that was more convenient, namely a ramen packaged in a disposable container. Promoted with the slogan “eat while you walk,” “container ramen” became highly successful. Traditional bagged ramen needed a separate pot for boiling it over a stove, and there was the added inconvenience of having to do the dishes. In contrast, “container ramen” needed nothing but hot water, and was ready to eat within 4-5 minutes. There wasn’t even the need to do dishes afterward.

#### *Considering the Difference in Culture*

“Container ramen” was more expensive than the bagged variety, but Japanese consumers with a higher income level chose convenience over thrift. Nongshim kept in their mind that this phenomenon was manifested in Japan when the national income level reached \$1600. Nongshim waited until 1982 when the Korean national income level reached that point. However, Nongshim decided as its “container,” not the “cup” that had been successful in Japan, but rather a “bowl.” This decision resulted from the opinion that a bowl was more fitting for the Korean culture. The Japanese eat while holding the rice and soup bowls with their hands, but Koreans eat with all the dishes on the table. So Nongshim decided to develop “Sabal-myeon,” meaning “bowl ramen.”

During the winter of the first year the sales figures for Sabal-myeon were high, but they dropped sharply with the arrival of March. Research showed that the reason for the seasonal fall in sales was due to the removal of stoves where water could be

boiled. So Nongshim developed a hot water container in tandem with an electrical appliance company, and distributed it to the stores. Despite such efforts, the sales growth of the unfamiliar new product was slow, because Koreans at that time were not used to instant foods. To overcome this obstacle, Nongshim decided to alter the concept of the “container ramen” from an indoor food to a treat for outdoors, such as sports stadiums. Since the outdoors meant cool winds, the design of the taste of the soup was to be changed from light to spicy.

In 1988, Nongshim volunteered to become an official sponsor of the 24th Seoul Olympic Games, and supplied its “container ramen” to all the sports venues. As the sight of countless athletes and spectators from all around the world eating Nongshim Sabal-myeon was broadcast on the American channel NBC, the Nongshim “container ramen” started its movement toward becoming an international brand.

#### *Designing a Cultural Product*

Nongshim's market share continued to rise and passed 50% in 1985, but the company did not rest on its laurels. Instead, it started designing to make a product that would show Korean culture. Because ramen originated from Japan, its basic flavor was light, fitting the taste of the Japanese consumers. Nongshim decided to make a ramen that would have a traditional Korean taste, hot and spicy, combining more than 60 ingredients such as red pepper, garlic, and green onion. “Shin Ramen,” launched in 1986 as the result of this effort, has become one of the most successful products in Korea's processed food history. Shin Ramen has become a truly global brand, and it is exported all over the world to nations such as China, Japan and Russia. One of the reasons why Nongshim has paid so much attention to cultural aspects in product design may have to do with the traits of its founder Mr. Choonho Shin. Since his childhood Mr. Shin was given an education that respected the oriental tradition and culture.

#### *Considering the Ethical Image of the Corporation*

Until 1979 Korean ramen producers used cow fat imported from the U.S. to make their products. They later found out that the cow fat was classified for industrial use in the United States.

According to the rules of the World Health Organization, only the cow fat that is harvested from a healthy cow and recognized as fit for human consumption by a veterinarian can be used for food products. There was a shortage of the first grade edible tallow that fulfilled this standard. Korean companies were unable to import anything else than the industrial cow fat. So they used the imported cow fat after several steps for refining it. However, Mr. Shin of Nongshim, who lay great importance on honesty and integrity, said “Even though we refine it thoroughly, how can we use something that the producers have labeled as industrial use?” He instructed the company to give up cow fat and find a substitute. Nongshim exchanged the cow fat with vegetable oil, putting up with a rise in cost of \$84 per ton.

Ten years passed and the news that industrial cow fat was being used in food products by some ramen makers exploded through mass media on November 4th, 1989. Nongshim, which had already started using vegetable oil as a substitute ten years earlier, was safe from the nation-wide “cow fat crisis.” Nongshim’s design to sacrifice the maximization of short-term profit for a long-term optimization allowed the company to avoid the crisis in ten years. As a result Nongshim has steadily developed its corporate image as a company of integrity.

### **5. Theorization 1: Necessary Conditions for the “Response” to Succeed**

It might be far more satisfactory to look at well-adapted visionary companies not primarily as the result of brilliant foresight and strategic planning, but largely as consequences of a basic process - namely, try a lot of experiments and keep those that work well.<sup>2)</sup> Let us call this latter type of progress as ‘evolutionary.’ The foregone cases of Nongshim can lead us to identify it as an evolutionary type of business progress. The word ‘evolutionary’ was chosen because they closely resemble how organic species evolve and adapt to their natural environments. The central concept of evolutionary theory is that

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2) Collins, J.C. & Porras, J.I., *Built to Last*. HarperBusiness. New York, N.Y. 1994. p.148.

species evolve by a process of variation and selection. Now, consider a company - say, Nongshim - as analogous to a species. Nongshim found its ramen business under siege. With only a 20% market share of a lower-price product the company could not reach the scale merit, and thus continued to lose money. To save the company from such a structural crisis, Nongshim had to do a lot of experiments. Out of these various experiments one turned out to be a success.

Now, let us consider the conditions for a product or service to be successful in the competitive market.

### *The Consumer's Position*

A consumer will buy a product only if he feels that the value ( $V$ ) that he feels for the product is larger than the price ( $P$ ) that he is paying. If this condition is expressed in terms of an inequality, it is as follows:<sup>3)</sup>

$$\text{Product Value } (V) > \text{Product Price } (P) \quad (1)$$

It is difficult to express the value that a consumer feels for a product in numbers. However, despite the difficulty in quantifying it, value not only exists, but can also change in the process of using the product. For instance, a consumer who is about to buy a car at 20 thousand US dollars ( $P$ ) will buy it only after examining it carefully, test driving it, and deciding that it has a value ( $V$ ) equal to or higher than the price. If after purchase, the car has many problems and has poor warranty, leading him to feel that it is not worth 20 thousand dollars, he will regret paying that price, and will never buy that car again.

If the product satisfies Inequality (1), the following inequality can be established.

$$V - P > 0 \quad (2)$$

Let us call the difference between the value felt by the consumer ( $V$ ) and the price that he paid ( $P$ ), the *consumer's net benefit*. Therefore, if a business fulfills Inequality (2), it donates

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3) Suck-Chul Yoon, A System of Truths in Management. Kyung Moon Sa. Seoul. 2001. p.130

the surplus of  $V - P$  to the consumer. Generally speaking, the attraction of a certain product for a consumer will be proportional to  $V - P$ , or the *consumer's net benefit*. So a business must be designed to maximize the product value and minimize the production cost, in order to increase Inequality (2) as much as possible.

#### *The Company's Position*

A company can survive and prosper, only if the price it charges to the consumer for a product is larger than the cost ( $C$ ) for producing it. This condition can be expressed as the following inequality:

$$\text{Product Price } (P) > \text{Product Cost } (C) \quad (3)$$

For a company to fulfill Inequality (3), it must be able to lower the product cost so that it is competitive in the market. When Inequality (3) is fulfilled, the inequality

$$P - C > 0 \quad (4)$$

is brought into effect. Inequality (4) expresses the difference between  $P$  and  $C$ , which is the *supplier's net benefit*.

If you combine the consumer's position, or Inequality (1), with the company's position, or Inequality (3), the following is established.

$$\text{Product Value } (V) > \text{Product Price } (P) > \text{Product Cost } (C) \quad (5)$$

In terms of plain language, Inequality (5) states that the value a consumer feels for a product must be larger than its price, and the price must be larger than the cost for producing it. *This Inequality (5) is the very constraint that any product must satisfy to make the company viable.*

A company's *effectiveness* is decided by how well it satisfies the inequality sign of the left side. No matter how hard it works to supply a product or service, if the consumers do not feel the value, the company is ultimately ineffective. A company's *efficiency* is decided by how well it satisfies the right-side

inequality sign in Inequality (5). If a company is inefficient, the cost becomes that much larger, and the product price should become higher as well. If the price is too high, that product will be rejected by the consumer, making survival difficult for the company. The consumer may be initially tricked into buying the product, or the producer may supply the goods at a loss for a while, but in the long run, the company and consumer can both survive only if both of the inequality signs in Inequality (5) are satisfied. In this sense let us call Inequality (5), the *inequality for survival*.

A company that fulfills the inequality for survival is a beneficial being that donates the *consumer's net benefit* ( $V - P > 0$ ) to the consumer, and the *supplier's net benefit* that it in turn earns ( $P - C > 0$ ), is the source of an ethically acceptable wealth.

The two inequality signs in the *inequality for survival* are not mutually independent. If  $V > P$  and the consumers purchase a large number of products, the scale merit is established enabling the lowering of cost, which may in turn enable  $P > C$ . If the left side ( $V > P$ ) of the *inequality for survival* is not fulfilled, the right side cannot be satisfied in the long run. If a company sets its product price low enough to fulfill  $V > P$ , but if  $P$  is too low to fulfill  $P > C$  in turn, it will go bankrupt as the losses add up. So a company's aim is to raise the product value  $V$  and lower product price  $P$  in order to realize ①  $V - P > 0$ , and raise product price  $P$  and lower product cost  $C$  in order to realize ②  $P - C > 0$ .

#### *Products with a Large $V - P$ Will Succeed in the Long Run*

If a business can raise value ( $V$ ) and lower the price ( $P$ ) to raise the consumer's net benefit ( $V - P$ ), its sales will increase. Prawn Crackers has been on the market for 30 years, but its price has always remained below that of the "fare for the city bus." For instance, when the city bus fare in Korea was 600 Won, a bag of Prawn Crackers cost about 500 Won. This price sends a message that the company is not interested in raising the price as high as it can to maximize the short-term profit. By maintaining the difference  $V - P$  as large as possible the company is looking for long-term optimization. As a result of Nongshim's keeping the price of Prawn Crackers low, competitors were unable to successfully market a similar product, because they could not reach scale merit. If Nongshim had chosen a strategy of raising

the price of Prawn Crackers, it might have been difficult for the snack to continue as a best seller for 30 years.

However, in the high-tech areas, it will be difficult to use the low-price strategy, due to the short life cycle of the products. In such areas, a strategy will be needed to minimize the time to market to maximize the benefits of a monopoly price. But apart from when the product life cycle is short, a company had better make V-P as large as possible for the long-term success of a new product.

## **6. Theorization 2: What Managers Need to Recognize a Change in the Environments.**

The change in business environment was defined as the second category of challenges to a business company. In the case of Nongshim, the success in the development of Unification Rice by the Korean government was recognized as a challenge to ramen. Thus, they began to try to design a response to the challenge by improving the quality of soup. By recognizing the change in business environments in time, Nongshim became a leading company in ramen with a market share of over 65%. In contrast, the other company that introduced ramen first to the Korean market, and thus had the largest market share in the past, is now in trouble with less than 20%. This company failed to recognize the challenges before it was too late. Now we can raise a question, what kind of special traits do managers need to recognize the change in the environment properly in time? Based on the findings from the analysis of the cases, we identify three basic traits as follows.

### *Sensitivity*

While there are many environmental changes that are easy to recognize, such as natural disasters or the energy crisis of the 1970s, there are some that are more gradual and difficult to identify, such as changes in the demographics, income level, consumer taste, or the slow shift of technology. It is not easy managers to realize that the unseen and gradual environmental changes may become challenges to their company as in the case of ramen. It was the failure of Samyang, (the first company of



ramen in Korea) to recognize the challenge that made the company a loser now.

Let us define man's ability to recognize a slow change in the environment as *sensitivity*. Defined thus, sensitivity is one of the most important human qualities for a manager in order to recognize environmental changes.

### *Imagination*

Just recognizing the challenge is not enough for a manager to save his or her company. A manager who has recognized the challenges must now successfully respond to the challenge. Let us define the ability to think of specific ways to respond to a challenge as *imagination*. In the foregone case, it was Nongshim's logical imagination that in times of hunger, ramen's main value was to fill an empty stomach, and so the *center of value* that the consumer felt for ramen was in the noodles. However, as the national income increased and rice was plentiful, ramen must now attract the consumer with its own unique taste. The logical imagination led to a conclusion that the central value of ramen hereafter should be found not in the noodles, but in the soup. Imagining such a value migration, Nongshim decided to innovate the quality of the soup. Thus defined, imagination is the second condition needed for a manager to recognize the second category of challenges and devise a successful response to the challenge.

However, nobody's sensitivity and imagination cannot be perfect. In other words, there is no guarantee that managers' sensitivity and imagination will turn out to be correct. Hence, a third condition, i.e., experimental persistency is needed for a successful manager

### *Experimental Persistency*

If the result of an effort to solve a problem turns out to be unsatisfactory, the manager must search for another way to solve the problem better, and repeat this cycle until a success comes up. Let us call these cycles of efforts experimental persistency. In the case of Prawn Crackers, Nongshim used up 80 truckloads of flour in searching trials. In the case of 'container ramen' Nongshim even tried to change the concept of the product. One historical example of experimental persistency

is that of Thomas Edison when he was finding out a proper material for the filament of a light bulb. In conclusion, the human qualities needed for a manager to recognize the second category of challenges in time and respond successfully to them are (1) sensitivity, (2) imagination, and (3) experimental persistency.

Managers or business leaders with these three qualities will be those whom Arnold J. Toynbee called, in his book 'A Study of History,' "*creative minorities*." An organization with enough creative minorities will be able to survive and prosper in time.

## 7. Discussion

Toynbee, based on the analysis of the rise and fall of 26 civilizations in the course of human history, concluded that civilizations rose by responding successfully to challenges under the leadership of creative minorities, and declined when the leaders failed to do so. This paper adopt the central concepts of Toynbee's philosophy of history to explain the rise and fall of business corporations. Business managers are expected to "respond" successfully to ever-arising "challenges" to their businesses. The managers should design proper "responses" in terms of products, services, and organizations so that they could be best fit to meet the challenges. In this sense, the managers are expected to have the traits of a designer who should produce inspiring and energizing designs in terms of products, services, and organizations. The business designs must ultimately satisfy the *inequalities for survival* in order to be economically profitable and humanly satisfying in the long run. In this sense the business version of "responding" to "challenges" must bear the nature of "managing as designing."

On June 14th and 15th, 2002 a group of leading artists, educators and managers convened at the Weatherhead School of Management at Case Western Reserve University in Cleveland, Ohio for a path creating workshop on "Managing as Designing". The intention was to transform business education by broadening the vision of a manger to include a designer's commitment to innovation and sense of balance, fitness and timelessness. Weatherhead faculty recognized the power of

design thinking for managers by working with the world-renowned architect, Frank Gehry, on their recently completed Peter B. Lewis Building. Weatherhead faculty saw Gehry's unique approach to design and problem solving as highly relevant and beneficial for managers. However, designing in business should be different from designing in pure art since designing in business should be subject to the inequalities for survival.

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## APPENDIX

Brief Financial Data on Nongshim Corporation (Translation into US Dollars at the rate of 1,200Won to US1\$ and rounded off)

### Balance Sheets as of December 31, 2002 (Audited)

	Korean Won	US Dollars
Current Assets	383,216,047,140	319,346,000
Fixed Assets	846,805,058,264	705,670,000
Total Assets	1,230,021,105,404	1,025,016,000
Current Liabilities	440,003,516,219	366,669,000
Long-term Liabilities	76,333,129,315	63,610,000
Total Liabilities	516,336,645,534	430,279,000
Common Stock	38,000,000,000	31,667,000
Capital Surplus	310,485,397,947	258,737,000
Retained Earnings	398,885,172,298	332,833,000
Total Stockholders Equity	713,684,459,870	594,737,000

### Statements of Earnings for the Year Ended December 31, 2002

	Korean Won	US Dollars
Sales	1,339,637,494,659	1,116,364,000
Cost of Goods Sold	932,157,868,912	776,797,000
Gross Profit	407,479,625,747	339,567,000
Selling & Admin. Exp.	301,583,258,023	251,319,000
Operating Income	105,896,367,724	88,248,000
Other Income	33,184,439,120	27,653,000
Other Expenses	25,910,317,503	21,591,000
Earnings Before Taxes	113,170,498,341	94,310,000
Income Taxes	33,111,411,592	27,592,000
Net Earnings	80,059,077,749	66,718,000