



New Pricing Strategy under Deflation: Case Study of a Japanese Company

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ABSTRACT

This is a case study of a Japanese company that has achieved sales growth in Japan's current deflationary economy. The company is a medium-sized food manufacturer who raised prices under deflation, and the result was successful. It has enjoyed 53 years of continuous revenue and profit growth. The company employs its own original "Special Formula" for price increases, which is studied and discussed here. The findings will provide valuable insights and advice to U.S. companies facing sluggish demand since the U.S. economy appears to be copying Japanese deflation.

Keywords: Japanese Company, Deflation Strategy, Food Manufacturer

1. Introduction

Since December 29, 1989, when the Japanese stock market reached a historical all-time high of ¥38,915 (U.S. \$1 = ¥79.74 on May 15, 2012), the Japanese economy lost two decades to economic stagnation. During this period, Japan also suffered from chronic deflation. Deflation is caused by a shift in the supply-and-demand curve for goods and services, particularly a fall in the aggregate level of demand which leads consumers to have an incentive to delay purchases and consumption until prices fall further. This in turn reduces overall economic activity. Consumers are clever; they reason that tomorrow's price will be lower than today's. Because of this idle productive capacity, investment also falls leading to further reductions in aggregate demand.

This phenomenon is known as the *deflationary spiral*. To counter these alarming trends, Japan enacted a zero interest rate policy, but so far, it has not fostered sufficient expansion to induce recovery. Neither has the most recent expansion of the monetary base. Changing consumers' expectations of deflation to expectations of inflation is not easy. This is the path that the Japanese economy has walked for the past 20 years, and it looks that U.S. economy is now walking on same path. This study explores how Japanese companies assess the effects of pricing strategy on company performance under deflation and identifies those strategies that may help other companies to maintain successful performance despite deflation.

In 2011, this study performed field studies of ten medium-sized manufacturers in Japan, including this company located in Nagano, Japan (the Company), established June 18, 1958 with capital of ¥ 96.8 million (U.S. \$1.21 million). The Company's number of employees is 346 with corporate headquarters in Nagano-ken, Japan (as of 1 May 2012). The Company is known for looking for successful "pricing strategies in the midst of long-term deflationary conditions." The methods used in this study

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include management interviews and factory visits based on the techniques employed by Misawa (1985) and Slagmulder & Werner (1992). The field study identified the Company that succeeded in increasing sales volume and profit by raising prices when most other companies lowered prices. The Company seems to have found a successful formula, which will be discussed in detail.

II. Literature Review

During a deflationary period, consumers are reticent to spend. Companies selling a good or service must make adjustments in order to continue earning profits, to attempt to break even, or to sometimes even lose as little money as possible in the hopes of staying afloat until the deflationary period ends. Of course, with any decision as drastic as this, carefully judging how it will affect every facet of the company is important – bottom line, brand, customers' perceptions—as is anticipating the altered position once the deflationary period ends. A common first move by companies navigating this difficult situation is to explore changing their pricing strategy. Price decreases, including predatory-pricing strategies to combat decreased market share and insufficient demand as highlighted by Cunningham and Hornby (1993), are popular choices.

Before further discussing price decreases, it is informative to address studies that have explored the relationship between consumers and price. Consumers use price as a guide in consumption decisions. Price information can be accumulated passively through prior knowledge and experience or sought actively through comparative shopping (Mazumdar & Papatla, 2000). Consumers view price as an indicator of quality (Teas & Agarwal, 2000; Yoo, Donthu, & Lee, 2000). Chapman and Wahlers (1999) explore the connection further and find a positive correlation between reference price and consumers' opinions of quality. Even though a high-priced product requires financial sacrifice on the part of the consumer, so too does the higher-priced product garner more esteem. Therefore, perceived value is a trade-off between perceived sacrifice and perceived prestige. This human equation implies that companies can use pricing as a tool to influence consumer behavior.

Price Decrease: For a company caught in an economic recession, simply decreasing supply might not be enough to offset the decrease in consumer demand. If that is the case, prices may need to be adjusted downward, which often

causes cutthroat price competition. The rationale is that weaker companies who are unable to stay afloat during the difficult times will withdraw from the market. In general, resource-poor or less established companies are forced to join the price-cutting competition. Resource-abundant or more established companies, however, are more likely to have a choice. Common rationale dictates that resource-rich companies will have the infrastructure and holdings to survive a drought, but it is less clear whether or not simply surviving the drought is the best choice. Chapman and Wahlers (1999) highlight the fact that overuse of price as a promotional tool might damage the prestige of a brand. Yoo et al. (2000), exploring the issue further and find that consumers perceive such price cuts as an admission of product quality reduction, which reduces previously high brand associations and awareness. These newer studies agree with traditional brand management beliefs: Preferences for a certain brand are easily damaged or forgotten after price promotion (Guadagni & Little, 1983; Scott & Yalch, 1980). In a study on sustainable pricing strategies, Chou and Chen (2004) urged companies to consider both internal and external influences.

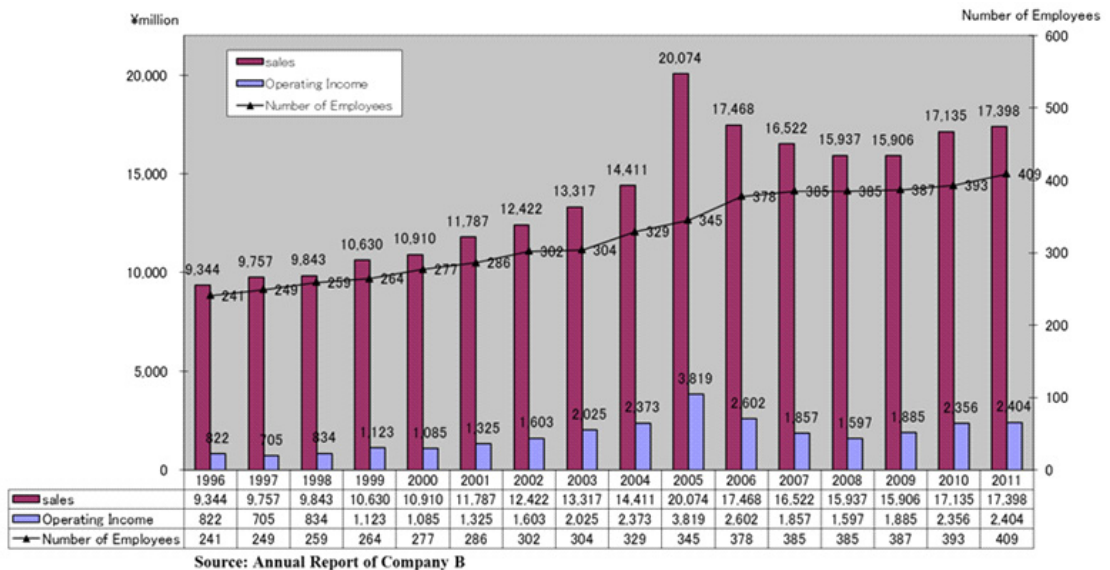
Company Size as a Factor: Though it might seem that larger and more established companies with more abundant resources and experience would be better equipped to handle recessionary periods, this is not always the case. In fact, Duncan and Handler (1994) find that small companies sometimes have better survival rates than large companies. It is much easier for a small company to shift to a new or niche market; they can imitate their larger competitors' actions and perform new pricing and promotional actions more quickly; they are strategically nimble (Grinyer & Yasai-Ardekani, 1981; Stasch, Lonsdale, Ward, & Harris, 1999).

III. Data

Case Study: a Medium-Sized Manufacturer Located in Nagano, Japan

The Company is a medium-sized, domestic, closely held manufacturer of powdered agar, a traditional gelatine product derived from seaweed. The success of this particular company is in large part due to powdered agar's meteoric popularity increase in Japan. In 2005 it was discovered that oligosaccharides in agar have cancer-resistant properties. Also discovered was that agar deters constipation, making it a sought after ingredient to use in meals for the aged

Figure 1. The company's financial results



especially. As its range of uses grew, so did its demand.

This natural gelatin was originally developed as an important ingredient for and used in traditional Japanese confectionery. Its manufacture was the product of a cottage industry by farmers who used the natural cold weather during December, January, and February to produce it. As a consequence of a) its production being limited to only three months of the year, b) its quality and quantity not being stable or reliable, c) appearance as both bars and in a fibrous state, and d) its being the victim of a seasonally fluctuating market, large industry avoided the product. The Company, therefore, concentrated on producing powdered agar, developed sources from which the raw material could be imported and stored throughout the year, and consolidated production into a highly efficient process thereby achieving a stable market.

Growth Strategy: The Company strives for a perpetual existence. It seeks stable, as opposed to quick and explosive, growth. It has enjoyed 53 years of continuous revenue and profit growth (see Figure 1).

The Company's policy has been a 2-3% a year increase in both sales and profit. Top management believes that if a business grows too fast, backlash will undoubtedly occur. Shareholders always ask a short-term return. The management tends to let the company grow quickly using all possible means such as sharp price increases, bigger production capacity, or more output by overwork. Or a huge demand may come very suddenly. For example, the year

2005 was a special year for the Company. The business boom for was caused by a notion promoted on national TV that agar is good for health. In response to this broadcast, the company began receiving a flood of orders for agar. The management felt that it should not fulfill the orders. This rather counter-intuitive decision came from the company's motto, "Those who plan for the distant future will be rich and those who plan for the near future will be poor" taken from Sontoku Ninomiya (1787-1856), highly respected in Japan for his work ethics and benevolence.²⁾

The Company is not considering listing its stock in the market. The management thinks that the company cannot be managed for its employees and for its community if the company is listed. The management suspects the stock market is interested only in how fast the company can grow.

Pricing Strategy

The Company believes that clients generally become aggravated when the price of an identical item swings violently; hence, they use a meticulously controlled pricing policy for each product category. They continually review

²⁾ Ninomiya was a farm technologist and the leading agricultural philosopher of the late Edo period (1600-1868). His practical and moral teachings, which urged cultivators to raise output and pay their taxes, helped strengthen the economic basis of Tokugawa rule. For this he was later praised as a paragon of virtue in the national ethics textbooks of the 1930s. Ninomiya taught farmers to improve themselves through *hotoku* (repaying virtue).

and change the individual prices of over 100 products to maximize sales and profit on the whole. If the gross margin of a product is 30%, it can be increased by as much as 17% through simply raising the price 5% if the cost is not changed. For example, given a bag of raw agar from seaweed: This is a healthy product that helps in cooking. The price of this bag is ¥100, and the cost is ¥70. The gross margin is ¥30. Suppose the price is increased by 5%. The new price is ¥105, and the gross margin is ¥35 if the cost is the same. With this price increase, the gross margin increases from ¥30 to ¥35, which is a 17% increase. With this in mind, the company was successful in increasing sales and profits even while the economy at large faced deflation.

In general, the gross margin drops as the number of units sold drops when the price is raised, but the company has merchandise whose sales quantities are less sensitive to price increase than average merchandises. The price elasticity of demand for their goods is generally low. Raw agar is made of seaweed, and there is no competition by a similar healthy product. Agar is considered to be lifesaving because it contains lots of vegetable fibers and is effective in preventing obesity, high blood pressure, hyperlipidemia and diabetes. Mothers also use this product in cooking at home and preparing family meals. Today, as people worry about preserving their family life, easy-to-use ingredients become all the more significant in preparing family meals.

The following are characteristics of the company's goods with low price elasticity (See Samuelson, 2010; Pindyck & Rubinfeld, 2012):

- i. Goods with differentiations that have no competition in the market.
- ii. Goods that are selling for reasons other than the price, which consumers think cheap compared to alternative merchandise.
- iii. Goods without clear substitutes or alternatives, merchandise for which the manufacturers always find order backlogs, those whose demand always exceeds supply, or those for which people's buying habits don't respond very much to changes in the price.

For such goods, the company increases prices using the following techniques:

- i. *Introducing a new and similar product in a higher price range*
By introducing it well through effective advertising, the consumer is enticed from existing products to the new one. Once the new product is

available for consumption, it terminates existing products.

- ii. *Blaming a price increase on the increase of a constituent raw material, the change of a materials supply source, the rise in cost of imported materials due to yen depreciation, etc.* Companies appeal to their understanding through public relations efforts.

It is essential that they are careful not to cause the clients to think that the company is using the situation to its advantage.

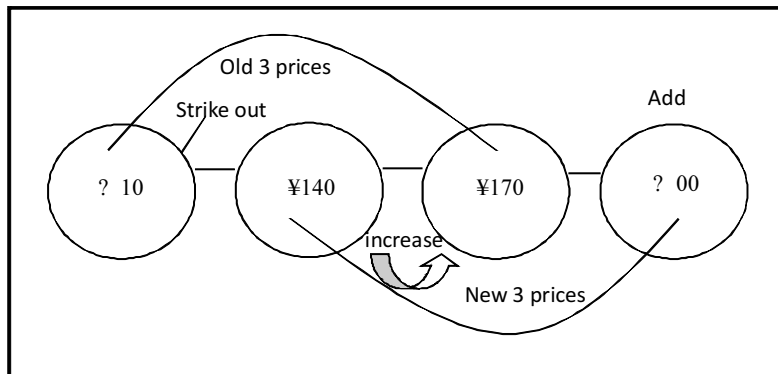
- iii. *Raising the price range by changing the product line up.*

Let us assume three grades of merchandise for a particular kind of product - lower, middle and upper class - and they are priced at ¥110, ¥140, and ¥170, respectively. Further assume that their market research department has established that customers tend to choose the middle class product, i.e., the product sold at ¥140. This type of consumer psychology is best exemplified in the sushi bar where clients tend to choose the better if there are three classes of sushi: best, better, and good. The company then introduces a new product line which has the upper class priced at ¥200. Customers are made to feel through advertising that the ¥170 and ¥200 products share some basic quality causing them to flock to the ¥170 product. This results in a price increase by shifting the demand for the ¥140 product to the ¥170 product. The company terminates the ¥110 product at a proper timing, thus smoothly completing the price increase campaign with little resistance (Figure 2). The market calls this method of price increase the company's "Special Formula."

- iv. *Shifting the price range in one blow by changing the product name.*
- v. *Transferring the cost of used-to-be free services such as wrapping and delivery to the consumer, making them available only for a fee.*

In essence, as long as a company is confident in its products' competitiveness, there are always methods to raise prices and increase profits smoothly. Not all the companies can do it, however. The consumers may not notice the price increase in short periods of time; but over a year or more, increases will become obvious as the increased prices start to constrain consumer budgets. Then the consumers will leave that product. What can the company do? The consumers will not leave their product even after they notice the price increases.

Figure. 2. Price increase by adding the higher price



Factors Supporting Price Increase under Deflation

The seven reasons why the Company can do this are listed below:

(1) Be a good company:

Increasing hedonic value can increase consumer loyalty to the brand and thus allow for greater price increases (Chaudhuri, 1999; Chaudhuri & Holbrook, 2001). Top management of the company makes maintaining a meaningful presence a priority constantly striving to be a corporate entity lauded and appreciated by its stakeholders. It considers that in its quest to seek better profits and efficiency, the company must be wary of not inconveniencing its customers and suppliers, not discarding its regard for the environment, and not forcing sacrifices upon its employees.

(2) Be a company conscious of progress and not of trend:

Top management of the Company believes in an axis of progress and an axis of trend in human society. The axis of progress is a straight line that leads to an ideal society. The axis of trend is a movement of society that swings constantly to the left and right perpendicular to the axis of progress. It feels that the axis of trend should be accounted for but warns against misunderstanding it as the path to follow. According to the Company, American-style management, which pays disproportionate attention to its shareholders' profits, is merely a trend. If one wants stability and long-term existence of a company, one should not be influenced by trend. To move steadily along the axis of progress with a thorough understanding of the optimum growth rate while keeping an eye on trend is the ideal mix for it.

(3) Stabilization of materials cost:

In order to store more agar, the Company built four additional bays of storage buildings using the profits earned from a price hike. At the same time, the production facilities and the factory were enlarged to increase production capacity. Furthermore, it visited various countries to secure suppliers for raw materials needed in the production of agar in order to stabilize flow inputs. Overall, it visited approximately 20 countries including Chile, the Portuguese Azores Islands in the Atlantic Ocean, Morocco, China, South Korea, and Vietnam in search of partner companies. The company signed partnership agreements with suppliers from three countries: Chile, Morocco, and South Korea. As a result of its new and stable supplies and its increased storage capacity, the Company was able to maintain constant price increases. On August 16, 1977, the company published an opinion advertisement in an industry paper declaring, "Agar is no longer a market-driven flamboyant merchandise."

(4) Strong research and development:

Top management believes that the survival of an enterprise rests on its R&D capabilities and that R&D should be a mainstay of any enterprise. Based on this conviction, the Company's rule is to always engage 10% of its work force in the research and development of materials and production technologies. Agar, which is mostly dietary fibers of very low calorific value, presents limitless possibilities for development.

The Company is pushing the frontier of biotechnology. This attitude assures their task of exploring new possibilities for agar. By upgrading their refining process, they have found a new application for agar in the field of fine chemicals. Research at the Company is not only for making

profits but also for allowing excited young researchers to pursue their dreams.

(5) *Presentation of the proposed uses:*

Top management believes that presentation determines demand. New types of agar developed from basic R&D augment the benefits for their customers. The company is fully equipped with the necessary facilities to conduct conclusive experiments. The research department regularly takes newly developed materials such as high-tech materials to exhibitions of other industries and shows them around, asking for possible uses in new products or processes.

(6) *Discovery of new uses:*

In one discovery, the research department noted an agar that could not be solidified. Such a product, while obviously unsuitable for normal usage, could have some use if a technology produced it in a stable manner. A use was found: a soft agar for elderly patients who had difficulty swallowing. The Company then produced soft foods made of agar by adding water and cooked food chopped into small pieces, which made the foods easier to swallow for elderly people. The technology to produce un-solidified agar was patented and was also used to produce agar juices, lipsticks, and cosmetic foundations.

(7) *Close communication with customers:*

To serve customers, the Company set up a mail order department, which had 500,000 regular customers. This allowed for an ideal relationship with clients. As soon as the Company received a complaint or a thank you letter, it sent back a hand-written letter to the client. Although it sold the products through the Internet as well, relationships with clients were such that when an employee handling client communications got married, the employee received numerous gifts from the client as congratulations on the marriage.

IV. Results

Sales in 2011 amounted to ¥17.398 billion with ordinary income for the same period at ¥2.4 billion. This was an increase in both sales and profits of approximately 1.5–2.0% from the previous year. The Company's policy is not quick

growth but stable growth. With this policy, the company has been enjoying an incredible 53 years of continuous sales and profit growth (The figures of 2005 were special, since news about the medicinal benefits of their product led to a boom in demand). The Company's constant price increase has been very successful.

V. Conclusions (Managerial Relevance)

We studied the pricing strategy of a company in Japan which raised prices constantly under deflation, and the result was successful. As this study indicates, the company can use price to influence consumer behavior as long as consumers use price as an index for shopping (Teas & Agarwal, 2000; Yoo et al., 2000). This phenomenon illustrates the tenet that small companies tend to be strategically nimble (Grinyer & Yasai-Ardekani, 1981; Stasch et al., 1999). A small company educates the consumer constantly, and its price increases encounters the least resistance from consumers. The Company's price raising has been working efficiently.

Viewed on an ex post basis, top management's decision to raise prices in the Company was rational. However, it did not have the benefit of clairvoyance during the process. The Company had to make decisions and evaluate various options in a dynamic environment. Raising prices in a difficult economic climate was a risky decision. Many studies have pointed out that the overuse of price as a promotional tool may damage the prestige of the brand (Chapman & Wahlers, 1999). It is risky for companies to rush into price competition without considering the possible side effects. This case study shows that a company that modifies its price strategy appropriately can maintain or improve its performance in times of deflation.

Theory suggests that for a company caught in an economy in recession, simply decreasing supply might not be enough to offset the decrease in consumer demand, and prices may need to be adjusted downward. Contrary to this theory, the Company was successful in raising the price under deflation. When the Japanese economy has faced serious difficulties, the Company has obtained successful results in marketing, producing, financing, and allocating resources. The Company reveals an interesting and noteworthy principle as the basis of the success – it plays the role of *contrarian*. A contrarian acts in opposition to others or rejects popular opinion. The position as a contrarian is supported by the following reasons:

- (1) Traditionally, it has been believed that a high demand for a product is a cue to raise prices, and there is a negative correlation between price level and willingness to buy. But if the consumers perceive that a product is harmonious with certain of their key needs and values, they will continue to purchase it despite price increases.
- (2) Price itself can be used as a tool to control consumer behavior. A hedonic value ascribed to merchandise can increase loyalty to the brand enabling companies to be more fluid with price changes (Chaudhuri & Holbrook, 2001).
- (3) Price, in some instances, may actually play a subordinate role to product worthiness in the consumer's decision-making process. We can put this in terms of price elasticity of demand. In this case, the demand for a product is inelastic; and consequently, price change has a relatively small effect on the quantity of good demanded.

The findings of the Company's price strategies provide valuable insights for decision makers and marketing planners in times of economic crisis. It adds a specific focus on marketing and pricing strategies to existing studies of general measures taken by companies during deflation. The Japanese company's strategy under deflation should give special messages to U.S. companies, since the U.S. economy tends to be copying Japanese deflation now.

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