16. Brand Names

The Theory

The basic economic theory of brand names is that they are a goodwill asset on which the firm earns a profit. This profit shows up as a price premium for brand named products compared to their generic counterparts.[1]

The function of the price premium is to induce the firm to maintain an expected quality level. The firm earns the price premium so long as there is no quality shortfall. The dimensions of quality are hard to identify or measure. But that is precisely why brand names are valuable. If quality was easy to measure then explicit contracts could be employed.

The magnitude of the price premium has several facets. First, in order to stop the firm from reducing quality, the price premium has to be large enough so that its present discounted value is greater than the cost savings from producing lower quality. If the firm sells low quality to consumers expecting high quality, a one time, windfall is received. The price premium must be large enough to stop the firm from this type of behavior. Second, the price premium in present value terms has to be as large as the cost imposed on consumers from receiving low quality when they were expecting high. Finally, the price premium has to be large enough to pay the normal rate of return on the investments made to create the brand name capital. Usually these investments come in the form of advertising expenses. Sometimes they are research and development. It may also be the case that a brand name develops as a free by-product of other business decisions. However, if a brand name is damaged, advertising is the normal way for the firm to attempt to revitalize it.

This theory of brand names suggests that expenditure on advertising is a bond between consumers and firms. The advertising is a non-salvageable investment that only pays for itself if the firm continues to produce a consistent, expected level of quality. By this argument, advertising need not have content. It is only necessary to demonstrate that a given level of investment is sunk into the brand name. Taking the argument close to the absurd, firms could simply burn money.

Some Evidence

There have been several studies that offer insight into the brand name problem.[2]

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[1] Klein, Benjamin, and Keith Leffler. "The Role of Market Forces in Assuring Contractual Performance." *Journal of Political Economy*, August 1981, 615-641.

[2] Jarrell, Gregg, and Sam Peltzman. "The Impact of Product Recalls on the Wealth of Sellers." *Journal of Political Economy*, June 1985, 512-536. Mitchell, Mark L. "The Impact of External Parties on Brand-Name Capital: The 1982 Tylenol Poisonings and Subsequent Cases." *Economic Inquiry*, 1989. Mitchell, Mark L., and M.T. Maloney. "Crisis in the Cockpit? The Role of Market Force in Assuring Air Traffic Safety," *Journal of Law & Economics*, October 1989. Borenstein, Severin, and Martin B. Zimmerman. "Market Incentives For Safe Commercial Airline Operation." *American Economic Review*, December 1988, 913-35. Benjamin, Daniel, and Mark L. Mitchell. "Quality-Assuring Price Premium: Classic Evidence From the Real Thing." Working paper, Clemson University

1. Peltzman and Jarrell -- These researchers examined product recalls in the auto and drug industries. They looked at the stock price reaction to the announcement of the recall. This is a measure of the cost of the recall to the firm. They then accumulated evidence on the out-of-pocket cost of the recall. Their finding was that the out-of-pocket costs were much smaller than the stock price decline. Hence, product recalls, which are assumed to be unexpected shortfalls in quality, have negative goodwill effects. This, however, does not mean that the goodwill decline is due to a decline in the price premium that the firm's product commands in the market place. Recalls could cause goodwill losses among distributors, agents, and franchises.

2. Mitchell, Tylenol -- This study examines the business fortunes of Johnson & Johnson during the period of the 1982 Tylenol poisonings. The finding is that J&J's stock price took a big negative hit as a result of the terrorist tampering that killed 7. This negative investor reaction was in excess of the out-of-pocket costs of pulling the similar products off the market and replacing them with tamper-proof containers. Tylenol lost market share for a while, but J&J was able to regain the market-leader status of Tylenol by a vigorous advertising campaign. The cost of the advertising effort over the year following the disaster was approximately equal to the stock market losses suffered by J&J. We don't know why consumers were reluctant to buy Tylenol after the poisonings, that is, we do not know if consumers treated the tampering as a shortfall in J&J's quality. However, we do know that advertising of the sort predicted by the theory of brand names was required to restore Tylenol's market share.

3. Airplane Crashes -- There have been numerous studies concerning the stock market reaction to air disasters. The general finding is that stock price falls about 2% net of market when a carrier crashes a plane. Mitchell and I did a couple of things that are interesting. We separated crashes into those that were arguably the fault of the airline, and those that were not. (Fault is not necessarily an issue: The Tylenol poisoning were not the *fault* of J&J.) In a random event like a airplane crash, the theory says that the company should suffer a goodwill loss when the event signals a decline in the expected level of quality. A crash, even due to pilot error, could be treated by consumers as just bad luck. "It had to happen eventually." We found a bigger negative reaction to at-fault crashes. We found little or no reaction to not-at-fault crashes. Next we investigated insurance costs. We found that insurance rates reacted to at-fault crashes and not to not-at-fault one. Hence, we have consistent evidence that some crashes reflect an increase in the probability of danger (insurance rates increase) and these crashes are also associated with significant stock market losses for the carrier. Moreover, the stock market losses were larger than the insurance rate increases. We attributed this to the brand name loss.

4. Coca Cola -- The evidence cited in the previous studies implicitly argues that brand names earn a price premium that is at risk if the firm reduces quality. However, there is no explicit evidence of the price premium. In the Coke case such evidence is presented. In 1985, Coca Cola announced that they were changing the *formula* for Coke. The new product to be called Coca Cola was one that had been taste-tested extensively in unlabeled experiments. The new product was preferred by 60% of the tasters. Upon the announcement of New Coke, Coca Cola's stock

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and the U.S. Securities and Exchange Commission, 1989. I.P.L.Png and David Reitman, "Why are Some Products Branded and Others Not?" *Journal of Law & Economics*, April 1995, p. 207.

price plunged over 5%. The public outcry was overwhelming. Within three months, Coca Cola decided to bring the old formula back. Because of rules imposed by the Federal Trade Commission about the use of the word "new" in product labeling, the old formula was called Coca Cola Classic. At the announcement of Coke Classic, the firm's stock price came back up about 2%. The evidence is marked: Coca Cola suffered a goodwill loss as a result of changing the formula. Mitchell and Benjamin go one step further. They examined the prices that Coke charged for the syrup to make the drinks. Their research reveals that the price premium enjoyed by Coke eroded as a consequence of the New Coke episode. Moreover, the price decline was approximately equal to the stock price decline. The interpretation is that consumers were paying for an assurance of quality consistency, and when that assurance was weakened consumers were not willing to pay as much.