Kodak versus Fujifilm

The news about Kodak's entry into Chapter 11 was paired with a Wall Street Journal story on how Fujifilm faced the same threat of digital photography, but were able to successfully adapt to the new challenges. To me, Kodak's descent into bankruptcy is almost unimaginable, because I remember how dominant it was in film sales. I worked some summers in a photo store selling film and cameras. At the time, Kodak films were the most expensive, followed by Fuji and then Agfa.

If customers asked us how the films differed, we told them (as was true) that modern films only had very minor quality differences that would be visible in really large prints. They did have some subtle colour differences, which happened to match the packaging: the Kodak in yellow boxes had a subtle glow, Fuji in green boxes had neutral and bright colors, and the Agfa in red boxes could draw towards red. At the time, our customers were picking up Kodak and Fuji film in roughly equal numbers in the most common 35mm format, which meant that Kodak got more revenue.

Where did Kodak get its dominance from, and how did Kodak maintain it? Kodak had a keen understanding of customers, and of controlling markets. The official designation of 35mm is actually 135; like most Kodak designed formats it has a name that starts with "1." In the case of 135, the design was actually minor. 35mm film was already used in movie cameras, and Kodak made a cartridge for safe daylight loading into cameras, plus it changed the perforation on the side so that the 135 film for still cameras could not be used in film cameras. Why change the perforation? Because it allowed separation of the two markets, which let Kodak maintain market power and price separately in still cameras and movie cameras. Along with the film design, Kodak designed cameras and advertising campaigns to get a large and loyal customer following. Kodak cameras, many believed, needed Kodak film.

In fact, 135 was a standard format, and that is why our store carried three brands. But Kodak was also a great proliferator of new film formats: the 110, the 126, the Disk. Each of them came with their own Kodak cameras, often with some competition from other film makers, but all of them were attempts to gain market power by creating pools of customers who used Kodak cameras to shoot Kodak film, at high prices. If this reminds you of colour printers today, it is because Kodak was a pioneer of a strategy that the printer makers now follow. A colour printer owner buys cartridges from the same maker, as they pretty much have to. Many of them also buy paper from the same maker even though printer paper of different manufacturers produces outputs that are even more similar than film from different manufacturers.

When digital photography hit Kodak, they had the expertise to make digital cameras but failed to capitalize on it. That part of the story is well known. But arguably still picture markets could never be the same after digital photography, because much of the mystery of printing went away. The digital camera users take pictures on their cameras, display them on their screens, and print them on their own printers. No longer will a customer turn in their film to a store and get the prints back after some mysterious process involving poisonous chemicals. In our store, as in many others, the prints would return in a Kodak wrapper even when the film was Fuji, because they were processed on Kodak equipment. Kodak had processing machine contracts that included the wrapping holding the prints and negatives delivered to customers. Digital photography put the process into the customer's hands to a much greater extent than before, and no company has been able to gain the type of dominance that Kodak had. Color printers are as close to a market with dominant firms as it gets. No wonder that Kodak got a chief executive with experience from Hewlett-Packard, one of the most successful printer makers. It was in printers that Kodak stood its best chance of replicating the usual strategy of getting market power and control over the customer. It ran out of money before it was able to fully execute its strategy.

So what did Fujifilm do? It moved into digital photography, where it is currently doing good business but without the strong position it had in still photography. Fujifilm also did something else. They remembered that they were a film company. A film is a backing material with layers of chemicals on top. Film for colour photography is highly advanced because the chemistry in photographic film is complex and needs to be deposited with extreme precision in order to produce sharp images with correct colour balance. Early 35mm film was smeared evenly over the backing and used plenty of silver; modern 35mm is deposited with molecular precision and has a more economical mix of colour sensitive materials. But films are used for many other applications as well, and the knowledge of chemistry that a company making photographic film has is useful in even more applications. Now Fujifilm products can be found on LCD screens, it has applied its knowledge of antioxidation (for long print lifetimes) to cosmetics, and it is producing medicine.

Kodak wanted to follow its usual strategy of controlling the customer when technology made this much more difficult. They found out that customers wanted freedom to choose. Fujifilm asked what they were good at and found new ways of applying this knowledge. They were able to find new customers. Pursuing market power is often a part of a firm's strategy, but it always needs to be backed by a more basic part: providing value.

References
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