

Brand Management in Pharmaceuticals

by

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Extended Abstract

This paper is concerned with trade marks and patented products. While patent protection is limited in time, trademarks are practically indefinite (Conley 2005). Hence, Conley and Szobocsan (2001) suggested that trade marking a product, protected by a patent, can create a product value transference from the limited life length patent to the unlimited trademark. This value can be realized in the post patent protection period in competition against legal imitators of the product who were unable to distinct their products with trademarks during the patent protection period. Furthermore, in some cases the incumbent who establishes a trademark while enjoying patent protection introduces, once the patent expires, a new generation improved substitute patented product competing with both the imitating entrants (of the old generation product) and the original branded product. In these circumstances the incumbent may transfer the trademark (and the value it brings) from the old brand to the new generation patented product to make it an even better competitor.

A notable example for cases of value transference is the branded / generic drug industry (see Conley and Szobocsan 2001 for more examples). Kamien and Zang 1999 have established, in the absence of trademarks and new generation drugs, that a drug maker, expecting generic competition as its patent is about to expire, will prefer to cannibalize its own patent protected brand and launch its own generic drug before entry becomes possible. This way he captures and maintains market leadership. The trademark option gives the incumbent drug producer the additional choice between maintaining market leadership in the old brand by preserving the trademark assignment, or transferring the trademark value and enhancing market leadership of an entirely new patented drug (or a combination of both strategies).

Below are the details concerning the case of the Prilosec and Nexium drugs:

1. Prilosec is a trademark (TM) for a formerly patented pharmaceutical compound known as Omeprazole. Nexium (Esomeprazole magnesium) is the “new generation”

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patented substitute drug to Prilosec. Both are medications for gastrointestinal reflux disease (GIRD).

2. AstraZeneca (AZ) is the company owning the patent on Nexium as well as TM's on Prilosec and Nexium. It also owned the now expired patent on Prilosec. AZ also owns TM on use of **Color Purple** for pill and packaging (prescription or OTC) in the market GIRD medications. AZ has no TM on Omeprazole.
3. Retail price per pill for prescription Prilosec pre patent expiration was about \$3.75/pill
4. Nexium is a slightly improved version of Prilosec, launched onto the market in the first quarter of 2001. Its color is purple. Furthermore, AZ started advertising Nexium as "Today's Purple Pill, from the Makers of Prilosec". Advertising for Prilosec has stopped.
5. AZ's patent on Omeprazole compound expired October 5, 2001 (after 21.5 year life).
6. Prior to patent expiration, a number of generic manufacturers filed with Federal Drug Administration (FDA) to get an abbreviated new drug application (ANDA) approval to sell their bioequivalent pill on the market (at substantially reduced price). First successful ANDA applicant gets a 6 month market exclusivity to sell generic Omeprazole.
7. Immediately after ANDA filing, AZ sued all generics who intended to enter market for prescription Omeprazole based on a theory of infringement of a separate patent on the enteric coating of the pill. This triggered a 30 month delay in FDA approval of related generic ANDA applications. This action resulted in a period beyond patent expiry that is an effective extended monopoly.
8. This followed by heavy litigation between AZ and the generics (Andrx, Genpharm, KUDCO (division of Schwartx Pharma of Germany)), during December 2001 through October 2002. On October 11, 2002, court ruled that Andrx and Genpharm were indeed infringing the enteric coating patents while KUDCO was not.
9. On October 31, 2002, FDA issued initial ANDA approval for generic Omeprazole and 6 month market exclusivity to two companies, Genpharm and Andrx. Neither could enter the market because of the infringement liability described in 2.8 above.
10. In early Nov. 2002 Andrx, Genpharm and KUDCO concluded a deal agreeing to collude.
11. On November 5, 2002, Andrx and Genpharm formally relinquished their six month exclusive right to sell generic Omeprazole.
12. On November 16 2002, the FDA approved KUDCO's ANDA application and KUDCO entered the market as the only company approved to sell generic Omeprazole. Retail price was about \$1.1/pill. They later reported over US\$ 1 billion

revenue in 2003 as a result of sales of generic Omeprazole. Genpharm and Andrx got a piece of that.

13. In June 2003, Prilosec over the counter (OTC) was launched by AZ, in a joint venture with Procter and Gamble under a heavy advertising campaign. Under this partnership AZ controls supply. The Prilosec OTC pill was not purple but rather pink. As an OTC product however, it is sold in a package that makes it impossible for OTC buyer to see pill color. Furthermore, box/packaging for Prilosec OTC is Purple. Additionally, the dosage of Prilosec OTC (20 mg active ingredient per pill) is exactly the same as that for generic Omeprazole approved in KUDCO's ANDA. Hence, the OTC and Generic offering are perfect substitutes. The OTC product, however, is cheaper and does not require a prescription. Retail price of Prilosec OTC is about \$0.75/pill
14. In March 2005, AZ sales of Nexium, priced at about \$4.0/pill, exceeded the pre-expiry peak sales of Prilosec. Supply of Prilosec OTC is very limited.

Following the above case, we consider the question of whether incumbent patented brand producers, facing generic competition, having trademarks assigned to their products, and introducing new improved patented versions of their brands, will choose to maintain the trademark with the old branded product or to transfer it to its new version (the "Nexium"). We discuss this question for a monopolist brand producer (facing a generic entrant), as well as for the competitive case where there are two substitute brand producers (facing the same generic entrant). We characterize the optimal or equilibrium solutions and discuss their effects on consumers and producers. Our analysis shows that a monopolist brand producer will prefer to transfer its TM to the improved new brand and that this will lower or maintain prices (compared to the alternative) and hence customers are at large better off. In the competitive case, when there are two brand producers, the pure strategies Nash equilibrium is that both brand producers will transfer their TM's to their new improved brands.

References

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