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Brand image and brand dilution in the fashion industry $\stackrel{\scriptstyle \scriptstyle \rightarrowtail}{\sim}$

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Abstract

We develop a dynamic optimal control model of a fashion designer's challenge of maintaining brand image in the face of short-term profit opportunities through expanded sales that risk brand dilution in the longer-run. The key state variable is the brand's reputation, and the key decision is sales volume. Depending on the brand's capacity to command higher prices, one of two regimes is observed. If the price markups relative to production costs are modest, then the optimal solution may simply be to exploit whatever value can be derived from the brand in the short-run and retire the brand when that capacity is fully diluted. However, if the price markups are more substantial, then an existing brand should be preserved. It may even be worth incurring short-term losses while increasing the brand's reputation, even if starting a new brand name from scratch is not optimal.

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1. Introduction

People pay more for brand-name products than they do for essentially identical products lacking brand identity. Sometimes this pertains to brand as a signal of quality (e.g., Maytag washing machines). However, brand-name markups are particularly pronounced in the fashion industry where functionality is less important than the brand's signal of style and exclusivity. If Gucci products are very expensive, then people who display their consumption of Gucci products are signaling their wealth to all observers (Bikhchandani, Hirshleifer, & Welch, 1992; Coelho & McClure, 1993; Bagwell & Bernheim, 1996; Frijters, 1998; Corneo & Jeanne, 1999; Bianchi, 2002). From marketing textbooks we know that the price of prestige goods

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should not be too low, because demand could be lower at a lower price (e.g., Berkowitz, Kerin, & Hartley, 2000; Boone & Kurtz, 1999; Perreault & McCarthy, 2000).

Physically attaching a brand-name to a product costs little, so the brand's capacity to command higher prices translates into substantial profit opportunities. This capacity is name-specific; merely sewing the name "Joe Smith" on a sweater won't increase its value to anyone, except perhaps Mr. Smith. Likewise, the price-raising capacity of any given name can vary over time. The name Ambercrombie & Fitch once was highly valued, being associated with the likes of Teddy Roosevelt and Ernest Hemingway. It fell upon hard times by the 1970s before being successfully resurrected by The Limited (Carbone, 2004).

Hence, a particular brand's capacity to command higher prices is like a capital asset whose magnitude varies over time and that deserves to be managed carefully. This paper models a key issue in brand management, namely the preservation of "brand image" in the face of short-term opportunities that risk "brand dilution." The basic ideas are familiar from brand management texts, but were deliciously described in a special Fashion Survey issue of The Economist (March 6–12,

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2004, p. 7), which used the term "brand integrity" rather than "brand image".

"Like everyone else in the luxury goods market, all three (Richemont, Gucci, Pinault–Printemps–Redoute) face the challenge of maintaining "brand integrity"—analyst-speak for that indefinable aura that convinces a consumer to pay a lot of money for something he, or more likely she, could buy much more cheaply elsewhere. ... The destroyer of brand integrity is "brand dilution", which is the perverse reward for popularity. If too many people have a supposedly exclusive Fendi handbag or Hermès scarf, it is no longer exclusive, and therefore, in the customer's view, no longer worth its vertiginous price."

So the central decision for a fashion house is sales volume. Selling too few forfeits profit opportunities; selling too many dilutes brand image. To prevent brand dilution, firms that produce prestige goods use exclusive channels to restrict the availability of their products (Amaldoss & Jain, 2005a). Christian Dior sued supermarkets for carrying its products because wide availability could hurt the firm (Marketing Week, 1997). Likewise, luxury goods manufacturers are advised not to sell products over the Internet because doing so might dilute their image (Curtis, 2000).

Note that since the "product" in this case is really the brand, not a specific single product, selling very few also risks brand obscurity not exclusivity. That is, Hedi Slimane might make only one copy of a particular dress (e.g., for actresses like Sara Jessica Parker or Nicole Kidman to wear to the Oscars), but Slimane has to sell enough dresses in total over the year to be a trend-setting player. From the customers' perspective, a brand name has no value if the people one is trying to impress by flaunting the brand have never heard of it.

Changes in brand image are not instantaneous; they occur over time. Otherwise there would be no temptation to oversupply. Instead, a brand's value adjusts progressively to match its actual exclusivity or commonness.

As remarked by Amaldoss and Jain (2005a, 2005b), this topic is related to the network goods literature (see, e.g., Katz & Shapiro, 1994). In most network goods models the network externalities are positive. However, brand dilution implies that the value of the brand decreases with the number of users, so we have a consumption externality that can be negative. Another difference with network externalities is that here the consumption externality is caused by social behavior rather than being technologically motivated.

As always, sales volume is intimately inter-related with price, but unlike typical goods, for high fashion it makes sense to view the key decision variable as sales volume. For a commodity, sales are expanded by cutting prices, but for high fashion, price is to some extent be determined by the brand's position in the status hierarchy.¹ Cutting prices can even reduce the fashion good's signaling value. There are other, potentially more appealing alternatives for expanding sales, such as expanding the number of retail stores allowed to carry the brand. Indeed, a significant part of The Economist article dwelled on the issue of licensing as a mechanism for expanding sales and its risks of brand dilution. With licensing, sales expansion involves allowing the brand to be attached to more and more different types of products (e.g., not just Pierre Cardin suits, but also Pierre Cardin shirts and even toilet seat covers).

The problem with excessive licensing could lie in the long term, as is explained in the Economist Survey (p. 8).

"If a licensee sells the product at a discount, or lowers its quality, or sells it in the wrong place, or bundles it together with low-quality products, the "brand integrity" will be harmed, perhaps permanently. The best-known example is Pierre Cardin, whose licensing operations proliferated so much that by the 1980s he had lent his name up to 800 products, including toilet-seat covers. In the end, despite his talents as a couturier, he became too common for many high-fashion customers. Mr. Cardin, rolling in his royalties, did not seem to care."

One of the aims of this paper is to examine under what kind of scenarios the "Pierre Cardin policy" can be optimal, from a profit maximizing point of view.

The fashion industry is just one industry that faces "conspicuous consumption". The consumer decision to buy a "conspicuous" product depends not only on the product's functionality, but also on social needs such as prestige (Amaldoss & Jain, 2005a, 2005b; Belk, 1988; Grubb & Grathwhohl, 1967; Leibenstein, 1950; Chao & Schor, 1998). Besides fashion, other conspicuous products include expensive cars, coins, watches and jewelery. The analysis in this paper applies more broadly to conspicuous consumption goods generally, not just to fashion goods alone. However, for matters of interpretation we continue to use the term "fashion" throughout the paper.

There are various models of conspicuous consumption in the literature, but most try to document or explain the behavior, not tell firms how to exploit it, as we do. Amaldoss and Jain (2005a, 2005b) are recent exceptions that also adopt the firm optimization perspective. Amaldoss and Jain (2005b) employ rational expectations and consumer learning in a monopoly model to determine the optimal dynamic pricing policy in a conspicuous goods market. They find that, if the market is comprised of both snobs and followers, then more snobs might buy as price increases. Amaldoss and Jain (2005a) generalize this result to a duopoly situation.

The present paper differs from Amaldoss and Jain (2005a, 2005b) by having the firm pick its point along the demand curve by specifying sales volume rather than price, but more fundamentally by treating the control as being continuous in time. In a sense, we capture what Amaldoss and Jain (2005a, pp. 40–41) expect from further research if their one-period model is extended to a dynamic one:

"For example, increased sales in earlier periods are likely to decrease the demand in the later periods if there is any snobbishness in the market."

¹ The Economist also notes (p. 14) "At the top end of the market the commercial arithmetic allows a certain amount of leeway (on price) because the shopper is willing to pay up to \$2000 for her dress, everyone is happy. Go downmarket from Barneys, however, to the Gap and Macy's in America, or to Top Shop in Britain, or Printemps in France, and what counts most for the shopper is often price."

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