

Economics 380: Solutions 1

28 September, 2005

1. Haagen Dazs analysis:

- (a) Substitutes: Premium and Standard Ice Cream, Other Desserts and Snacks.
- (b) Buyers: Supermarkets, Corner stores, Direct sales to individuals. Bargaining power: Moderate.
- (c) Suppliers: Milk board, Packaging, Sugar. Bargaining power: Moderate.
- (d) Rivals: Ben & Jerry's, Dreyer's. Rivalry: Loose Oligopoly with competitive fringe. Competition relaxed.
- (e) Entrants: Other makers of desserts and sweets, health foods.
- (f) Compliments: Hot fudge sauce.

2. Possible market definitions:

- (a) A small market: Action movies one can buy on DVD.
- (b) A bigger market: Action movies on DVD or in the cinema.
- (c) From a family's perspective on a Saturday evening: playing board games, going bowling, going to the cinema.
- (d) From the perspective of buying a Christmas present for a 15 year old nephew: books, CDs, a football.

3. Vertical differentiation: everyone prefers A over B when the price is the same. Horizontal differentiation: people will differ in preference when the price is the same.

- (a) Vertical.
- (b) Horizontal.
- (c) Vertical. (Remember we should equalise the price of the two goods).

4. Possible reasons:

- (a) Create loyal customers.
- (b) Prevent entry from cheaper car makers (e.g. from South Korea, Malaysia).
- (c) Buyers of small cars are likely to be poor. The car companies can then make money on financing. (This suggestion comes from one of your classmates).

5. Bargaining between Ford and Hunts.

- (a) Nash bargaining implies a price of \$150. Both make profits \$5,000.
- (b) If Hunts invest in the Wundermaschine the price will be \$125. Both firms make profits \$7,500. The Wundermaschine costs \$3000, so Hunts should not invest.

(c) Before the Wundermaschine is bought the total surplus is $\$20,000 - \$5,000 - \$3,000 = \$12,000$. Both should therefore get $\$6,000$ using Nash bargaining. This implies a price of $\$140$.

6. This suggests that a basic 3 megapixel camera will cost around $\$200$. Digital zoom will cost $\$50$ more. It may seem odd that accepting (heavier) AA batteries increases the price relative to (lighter) lithium ones. The reason is probably that the cameras that use AA batteries have more extras that we have not included in the regression.

7. Producing compliments.

(a) The firm should make 10 blue bikes (profit 100) and 5 red bikes (profit 25). Total profit is $125 - 100 = 25$.

(b) If you share the overhead then the red bike production line loses money. However it is wrong to share overheads like this. The reason is that the marginal contribution of the red line to production costs is zero. That is, cutting the red line would merely reduce profits to 0.