Cannibalization may Allow a Cost-inefficient Firm to Earn more than a Cost-efficient Firm in a Duopoly with Two Vertically Differentiated Goods*

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Abstract

We consider cannibalization in a duopoly model in which firms with different costs supply two vertically differentiated products in the same market. We find that an increase in the difference in quality between the two goods or a decrease in the marginal cost of the high-quality goods leads to cannibalization, such that the high-quality goods keep out the low-quality goods from the market. We show that, in equilibrium, cannibalization affects the product line of firms. As a result, an inefficient firm may earn more than the efficient firm. If the difference in the quality of the two goods is small enough, an increase in the production costs of the inefficient firm improves social welfare.

Keywords: Multi-product firm; Duopoly; Cannibalization; Vertical product differentiation

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