Proliferation and Entry Deterrence in Vertically Differentiated Markets

KEYWORDS:

Vertical Differentiation; Proliferation; Entry Deterrence; Welfare

BACKGROUND

Proliferation refers to a situation where firms offer a range of a particular type of product. This practice has been under intense investigation in horizontally differentiated markets, where antitrust concerns have been raised in respect of excessive proliferation, which has been recognised as a means of deterring entry. A typical case is proliferation to deter entry in the breakfast cereal market studied by Schmalensee (1978).

In contrast, such analysis in vertically differentiated markets has been sparse. In the context of vertical differentiation, proliferation means the provision of different qualities. It is common for an industry to have high end and low end brands offering quality-differentiated products, and it is also common for a single firm to offer quality-differentiated products to consumers. As a result, proliferation could be either pro or anti-competitive to the market. On the one hand, by filling in the gaps on a quality spectrum, proliferation increases competition as the products available become more similar to each other. On the other hand, proliferation enables firms to reach different market segments and better discriminate against consumers.

Another form of proliferation, namely brands collaboration, is usually conducted jointly by two firms. A good example of vertical brands collaboration is the overwhelming high-street (e.g. H&M) and luxury (e.g. Jimmy Choo) collaboration in the fashion apparel and sportswear industry. As reflected by prices, the perceived quality of collaborated ranges seems to be higher than the normal ranges from the high-street stores, although would not be as high as the original designer luxury collections. As a result, quality configuration expands with proliferation.

It is important to study proliferation in vertically differentiated markets since the existing studies relating to it is limited and does not keep up pace with the boom of real life (joint) proliferation cases. Among many strategic incentives, proliferation in vertically differentiated markets has mainly been examined for two reasons – to increase profit and to deter entry. While there is literature on the optimality of proliferation, the specific conditions and endogenous proliferation qualities have been largely unaddressed, making it difficult to evaluate proliferation decisions even in a simplified context. Given that the entry deterrence effect of proliferation is rarely examined, the relevant welfare effect remains unclear.

METHODOLOGY

- In a theoretical model of vertical maximal differentiation where one firm specializes in the high end of the quality spectrum and Bertrand competitive firms operate in the low end, we examine the profitability, entry deterrence and welfare effects of proliferation.

KEY FINDINGS

- We show that the high quality firm never has the incentive to proliferate and offer a middle quality, in the absence of threat of entry. The business stealing effect always dominates.
- Suppose there is a potential entrant. Anticipating the entrant's quality decision, the high quality incumbent has an incentive to proliferate by offering the same quality to deter entry, given a low enough proliferation cost.
- While it reduces industry profits, such proliferation always increases consumer welfare and possibly total welfare, in a way that is more efficient than if entry takes place.

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CCP Policy Briefing

working paper 15-6

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- The quality level of the third quality product is endogenously determined and is a convex combination of the existing high and low qualities, consistent with the prediction of previous literature.

POLICY ISSUES

- Proliferation can be completely undesirable as a means of increasing profits, even in the extreme case of introducing only one additional product. Therefore any level of proliferation may be anti-competitive and serve to deter entry.
- While such proliferation to deter entry is anti-competitive, it increases consumer surplus and, thus, can be justified on welfare grounds.

THE CCP

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