ABSTRACT

## CAN OUTSOURCING TO CONTRACT MANUFACTURERS BE DETRIMENTAL?


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Many original equipment manufacturers (OEMs) today outsource their manufacturing functions to contract manufacturers (CMs) to reduce costs. One of the associated risks, however, is that CMs can later encroach on the market by developing and selling a similar self-branded product, a behavior referred to as market encroachment. Oftentimes, market encroachment is stimulated by the cost advantage CMs can gain after producing large quantities for OEMs. We focus on studying how such learning-by-doing ability of the CM affects profits.

Contrary to the common belief that a CM always benefits from having a stronger learning ability, we identify market conditions under which the CM obtains less profit with a stronger learning ability. When the wholesale price is fixed, for example, a stronger learning ability can decrease CM profits because the OEM, in an attempt to discourage the emergence of a strong future competitor, reduces outsourcing quantity to hedge against the CM's learning.

Interestingly, this is not the case when the CM has higher negotiation power on determining the wholesale price. Here, both the OEM and the CM always benefit from the CM having a stronger learning ability; the CM benefits from lower production cost, while the OEM benefits from a lower wholesale price enabled by CM learning. When the OEM has high negotiation power, however, and the CM's learning rate surpasses a certain threshold, the OEM often chooses, depending on wholesale price, to engage in partial outsourcing to both the CM and a third-party supplier. Under these circumstances, higher learning will not increase CM profits.