The advantage of selling an invention instead of turning it into a business

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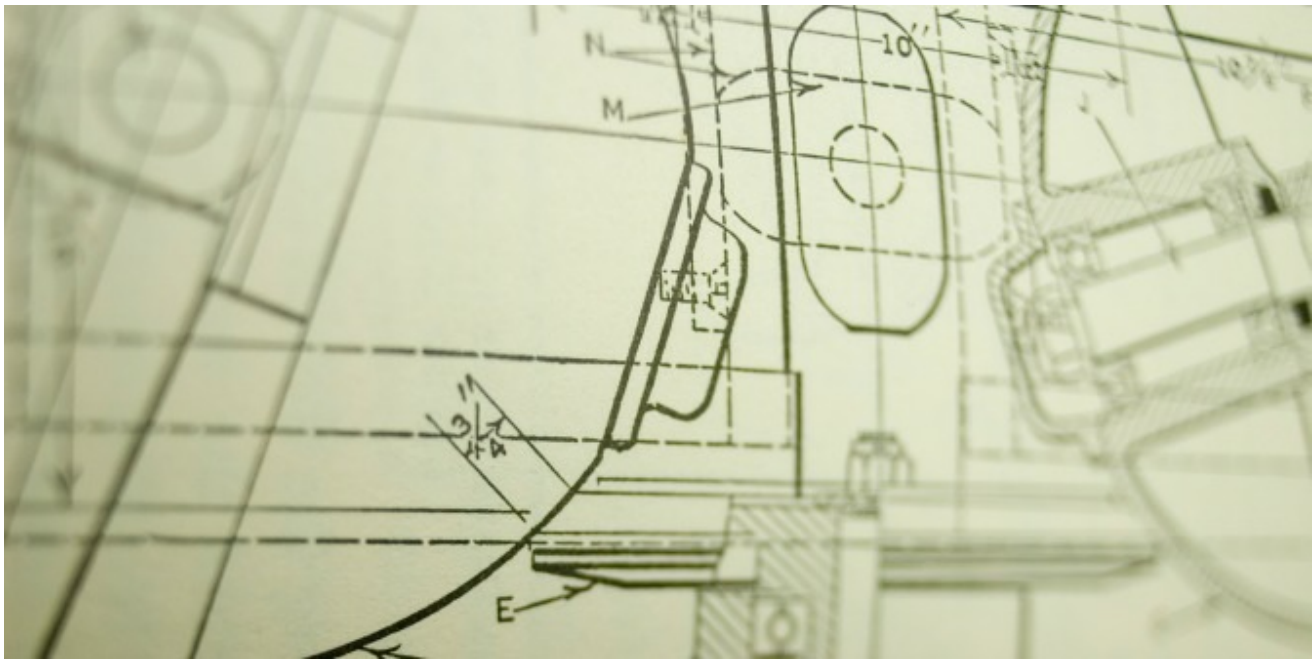

It is well known that entrepreneurs play an important role in challenging existing oligopolies through *de-novo* entry (i.e., with a new business) in the market. In this study, we show that the entrepreneur is also a challenger through the aggressive development of inventions for sale.

This development incentive is particularly strong when the invention has such a high quality that incumbent buyers try to preempt each other from acquiring the invention. In a preemptive acquisition, an acquirer pays a high price in order to keep the target firm out of the hands of its rivals.

The role of an aggressive invention supplier may be even more important than the role of a *de-novo* entrant. Preemptive acquisitions give entrepreneurs the incentive to increase their efforts in high-quality research projects so that the expected welfare in society can increase despite the risk of increased market power.

The welfare benefits of such "creative destruction and productive preemption" then crucially depend on whether there is bidding competition over entrepreneurial firms, i.e. whether acquisitions are preemptive (where incumbents bid their full valuation) rather than entry deterring (where incumbents only pay the entrepreneur her entry value).

Innovation and commercialisation for sale have become a crucial feature of the innovation and start-up market. For instance, in the Silicon Valley Bank's annual Startup Outlook report 2016, it is pointed out that today's start-ups aim at being acquired rather than making an IPO. According to a survey of 900 start-ups in the report, 17 per cent of the start-ups aimed for an IPO, 19 per cent aimed at staying private, while more than half – 56 per cent – had the goal of being acquired. Start-up for sale seems to be the name of the game for entrepreneurs in the tech-sector today.

In a recent theoretical study, we examine how the choice for entrepreneurs (start-up companies) to sell their ventures (inventions) or to enter the market and compete with incumbents (i.e. make an IPO or stay private) may depend on market competition and the quality of the venture (invention).

We first examine what type of inventions (ventures) — in terms of their quality — will be sold? At first sight, it seems reasonable that the level of quality should not matter, since the entrepreneur's reservation price and incumbents' willingness to pay should be equally affected by a change in quality.

However, we show that the incentive for commercialisation by sale relative to commercialisation by entry increases with a higher quality of the invention. To see why, first note that an incumbent's valuation of the invention consists of the incumbent's product market profits when owning the invention relative to the profits it generates when a rival possesses the invention.

Then note that a higher invention quality increases entrants' and acquirers' product market profits in a similar fashion, but also reduces the profits of the incumbent as a non-acquirer. This implies that the incumbents' willingness to pay for the invention increases more than the entrant's profit in quality. Thus, entrepreneurs with great inventions or great business ideas will not be able to resist selling their ventures, since they will be offered so high acquisition prices from incumbents.

Should we then be worried that entrepreneurs sell their venture and do not challenge the incumbents in the product market? Not necessarily. In fact, we show that the expected consumer welfare can be higher under commercialisation by sale than under commercialisation by entry, despite the increased market power for the acquiring incumbent firm in the product market. The reason is that entrepreneurs who sell their inventions will have a stronger incentive to develop high-quality inventions than entrepreneurs who aim at entering the product market. Incumbents are, of course, hurt by this creative destruction process ignited by the entrepreneurs and thus have an incentive to undertake research to block entrepreneurs' research activities. We then show that incumbents' research effort can reduce, but not eliminate, the entrepreneurs' incentives to innovate for entry or sale.

In recent decades in Europe and the US, government policies have favoured the growth of small firms as compared to the alternative to sell or license inventions. This has been accomplished by tax-favouring the market entry of entrepreneurs, or by offering subsidies for SMEs. The results derived in the paper suggest that industry policies that disfavour innovation for sale over innovation for entry may be harmful. The reason is that reducing the cost of selling inventions may not only have a direct positive effect on the reward for entrepreneurship, it may also create bidding competition over high-quality inventions, which may further increase the incentives for high-quality entrepreneurial research.

Policies that improve the merger and acquisition market could then be preferred. Such policies may involve making the tax system neutral between keeping and selling a firm, or improving the legal system to reduce the transaction costs associated with acquisitions in order to ensure a bidding competition over target firms.

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Notes:

- *This article is based on Creative destruction and productive preemptive acquisitions, in the Journal of Business Venturing, 2016, vol. 31, issue 3, pages 326-343*
- *The post gives the views of its authors, not the position of LSE Business Review or the London School of Economics.*
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