Startup Acquisitions: Acquihires and Talent Hoarding

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- Until recently, competition authorities usually did not scrutinize acquisitions of nascent/potential competitors.
- Nowadays, there is a growing concern about such acquisitions – with "killer acquisitions" (Cunningham, Ederer, and Ma, 2021) being a prominent example.
- Some commentators: even if the startup is shut down, this is not harmful – these acquisitions are merely "acquihires".

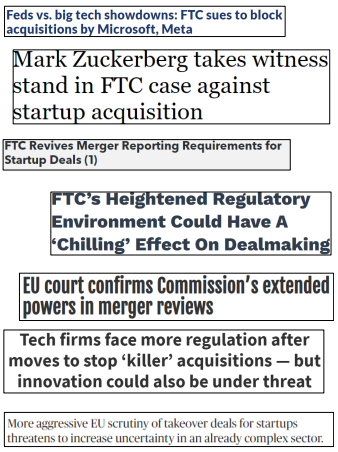

Figure: from *adexchanger.com*.

Mark Zuckerberg, Huffpost.com, October 2010

Facebook has not once bought a company for the company itself. We buy companies to get excellent people.

Crunchbase, Feb 15, 2022

One example are so-called “acqui-hire” deals, Ferris said. Such deals bring talent to the acquirer, but do not add new technology or markets, and have been a staple in tech M&A for years. However, the agency has signaled concerns of the uneven access to talent such deals may create. “They [the FTC] are not looking at those deals now, but have shown they may be willing in the future”.

This paper

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2. Examine the implications of acquihires on consumer surplus.
3. Look at implications for the labor market.

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4. Finally, we extend the model in several directions:
   - → valuable startup technology;
   - → dominant firm;
   - → multiple firms;
   - → partial acquisitions;

A glance at the literature

- Literature looking at acquisitions potential/nascent competitors.
- Bar-Isaac, Johnson and Nocke (2024) provide an explanation of why firms engage in acquihiring as opposed to direct hiring.
- Papers which empirically study startup acquisitions as a hiring strategy and the separation rate of these employees.
- Haegele (2022) gives evidence of talent hoarding within organizations.
- Macroeconomic models studying the role of labor hoarding over the business cycle.

Model

The Environment

- Two firms are operating in some market making profits Π_F each.
- An entrepreneur runs a startup in a different market, profit π_E.
- Each firm has a private type θ determining its "match quality" with the startup: $\theta \in \{L, H\}$, with $\Pr(\theta = H) = \lambda$.
- Firms may try to do an acquihire (acquire and integrate the startup) by offering the entrepreneur a bid p.
- If a firm of type θ succeeds in doing an acquihire with bid p, payoffs read

$$\underbrace{\bar{\Pi}_F^\theta - p}_{\text{Acquiring firm}} \quad , \quad \underbrace{\underline{\Pi}_F^\theta}_{\text{Other firm}} \quad , \quad \underbrace{p}_{\text{Entrepreneur}} \quad .$$

Assumption 1

(i) $\bar{\Pi}_F^H > \Pi_F + \pi_E > \bar{\Pi}_F^L$

(ii) $\Pi_F \geq \underline{\Pi}_F^L > \underline{\Pi}_F^H$

Timeline

Stage 1

1. Firm 1 discovers the startup and learns the quality of the match.
2. Firm 1 can make a bid to acquihire the startup.
3. Entrepreneur can accept or reject the bid.

If an acquihire took place, the game ends. If not, we reach …

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Stage 2

1. Firm 2 discovers the startup and learns the quality of the match.
2. Firm 2 can make a bid to acquihire the startup.
3. Entrepreneur can accept or reject the bid.

The game ends and payoffs are realized.

Talent hoarding

- Talent hoarding: a situation in which a firm employs workers although they could be more efficiently employed elsewhere.
- In our model: we have talent hoarding when a low-type firm makes an acquihire.
  - $\rightarrow$ It would have been more efficient to let the start-up remain independent.
- (Inefficient) talent hoarding would never arise absent strategic incentives.

Equilibrium

Proposition 1 (Talent hoarding)

Under Assumption 1, firm 1's behavior in any perfect Bayesian equilibrium (PBE) is uniquely specified. Namely, if firm 1 is a high match with the startup, it will pursue an acquihire; if it is a low match, it will pursue an acquihire if and only if

$$\lambda \geq \lambda_A \equiv \frac{\pi_E + \Pi_F - \bar{\Pi}_F^L}{\Pi_F - \underline{\Pi}_F^H}. \tag{1}$$

Consumer Surplus

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- What is the effect of acquihires on consumer surplus?
- From a consumer's point of view, there are three possible outcomes of the game:

  1. No acquihire, so all three firms are still active, yielding $CS_F + CS_E$.
  2. Low-type acquihire, so startup is inactive, yielding CS_L.
  3. High-type acquihire, so startup is inactive, yielding CS_H.

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  3. High-type acquihire, so startup is inactive, yielding CS_H.
- Things are easy if $CS_F + CS_E$ is either the max or the min among all.
- What if $CS_L < CS_F + CS_E < CS_H$?

Proposition 2 (Effect of acquihires on consumer surplus.)

1. *If $CS_F + CS_E > \max\{CS_H, CS_L\}$, then all acquisitions reduce consumer surplus.*
2. *If $CS_F + CS_E < \min\{CS_H, CS_L\}$, then all acquisitions increase consumer surplus.*
3. *Suppose that $CS_H > CS_F + CS_E > CS_L$. Acquihires reduce consumer surplus in expectation if and only if $\lambda \in [\lambda_A, \lambda_{CS})$.*

Where

$$\lambda_{CS} \equiv \frac{CS_F + CS_E - CS_L}{CS_H - CS_L}. \tag{2}$$

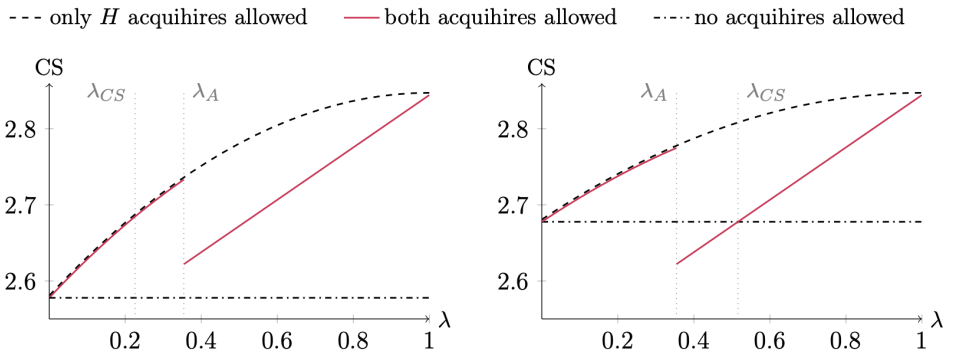

Figure 1: Consumer surplus in the Cournot example when Proposition 2(iii) applies. In the left panel $\lambda_{CS} < \lambda_A$ so that all acquihires increase consumer surplus. In the right panel $\lambda_A < \lambda_{CS}$ so that acquihires decrease consumer surplus if and only if $\lambda \in [\lambda_A, \lambda_{CS}]$.

Hiring, Separation and Unemployment

Timeline

Period 1.

Identical to the baseline environment.

Period 2.

- The entrepreneur has the option of creating a new startup, once more leading to an outside option of π_E.
- If a firm did an acquihire in period 1, that firm gets to move first in the second period and can retain the entrepreneur or let her go.
- If no firm did an acquihire in period 1, firm 1 gets to move first and both firms may sequentially attempt to do an acquihire.

Adverse Shocks

- With probability $\delta \in (0, 1]$, the economy suffers a downturn at the end of period 1.
- If a downturn materializes, each firm i is hit by a shock $S_i \in \{D, N\}$, where it is either downgraded to low type (if possible) or not affected.
- The shocks are distributed

$$\Pr(D, D) = r\gamma(1-\gamma) + \gamma^2, \qquad \Pr(D, N) = (1-r)\gamma(1-\gamma),$$
$$\Pr(N, D) = (1-r)\gamma(1-\gamma), \qquad \Pr(N, N) = r\gamma(1-\gamma) + (1-\gamma)^2,$$

where $\gamma \in (0, 1)$ is the probability that a firm will be downgraded and $r \in [0, 1]$ measures the positive correlation between the firms' shocks.

Effect of talent hoarding on employment

- Benchmark: $\Pi_F = \underline{\Pi}_F^H = \underline{\Pi}_F^L$, in which case there are no incentives to acquihire for reasons of talent hoarding.

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Proposition 3 (Effect on employment outcomes)

The presence of talent-hoarding motives always leads to more hiring than in the benchmark. Additionally, provided that $\min\left\{\frac{\lambda_A}{\lambda}, \frac{1-\lambda}{\lambda}\right\} > (1-r)(1-\gamma)$*, talent hoarding also leads to more separation and unemployment than in the benchmark.*

Volatility in hiring and separation

John Gruber, January 20, 2023

There are numerous reasons the tech industry wound up at this layoffpalooza, but I think the main reason is that the biggest companies got caught up in a game where they tried to hire everyone, whether they needed them or not, to keep talent away from competitors and keep talent away from small upstarts (or from founding their own small upstarts). These big companies were just hiring to hire, and now the jig is up.

Conclusion

Extensions

- Valuable technology.
  - → Technology can be resold.
  - → More talent hoarding when startups also own valuable technology.
- Dominant firm.
  - → More incentive to hoard talent.
- Multiple firms.
  - → With many firms, no incentive to hoard talent.
  - → But the effect is non-monotonic.
- Partial acquisitions.
  - → Inefficient outcome more likely.
  - → But the magnitude of inefficiency is lower.

What have we learned?

- Acquihires are not necessarily benign: They can be a symptom of inefficient talent hoarding.
- Talent hoarding may lower consumer surplus.
- Talent hoarding may lead to an increased employment volatility for acquihired employees.

Thank you!