

AI as “Co-founder”: GenAI for Entrepreneurship

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Overview

- A study of the impact of the **ChatGPT Shock** on entrepreneurship.
- Universe of newly registered firms in China, 2021 – 2024; DiD design at within-city H3 grid level.
- Grids with stronger pre-existing AI-specific human capital saw increase in small firm entry, while large-firm entry declined.
- New entrants:
 - ↪ More first-time founders, fewer shareholders, smaller founding teams.
 - ↪ More in sectors that apply AI: retail, business services, online platforms, other digital services; less in construction and manufacturing.

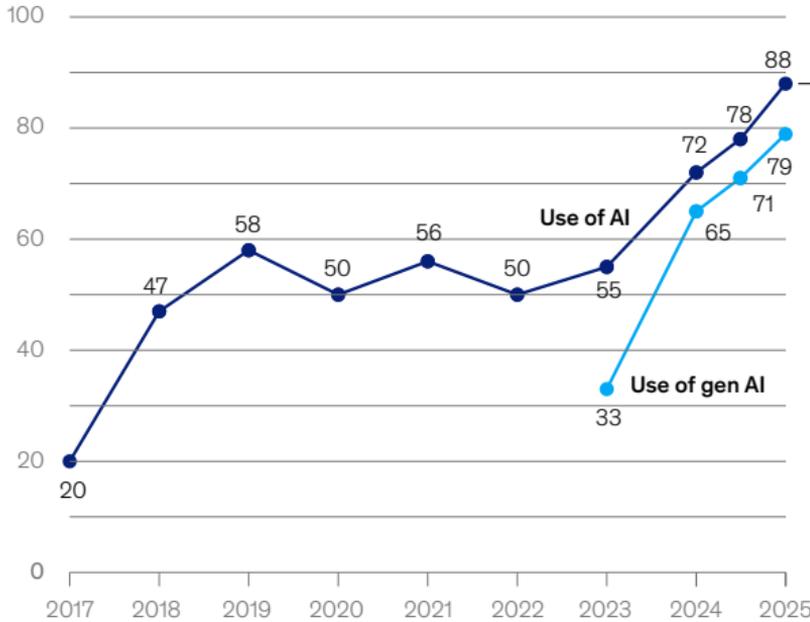
Comments

- ① Background
- ② Mechanism
- ③ Welfare

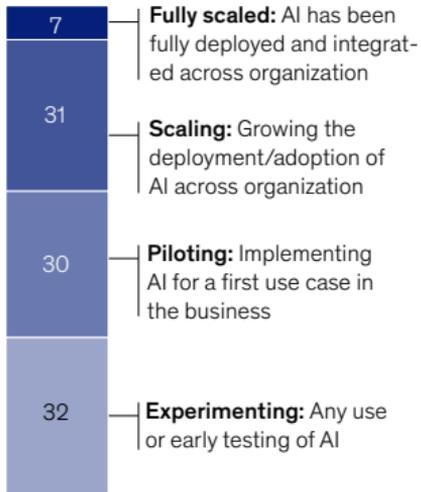
Comment 1: AI adoption in business

Use of AI by respondents' organizations, % of respondents

Organizations that use AI in at least 1 business function¹



Phase of AI use among organizations using AI in 2025

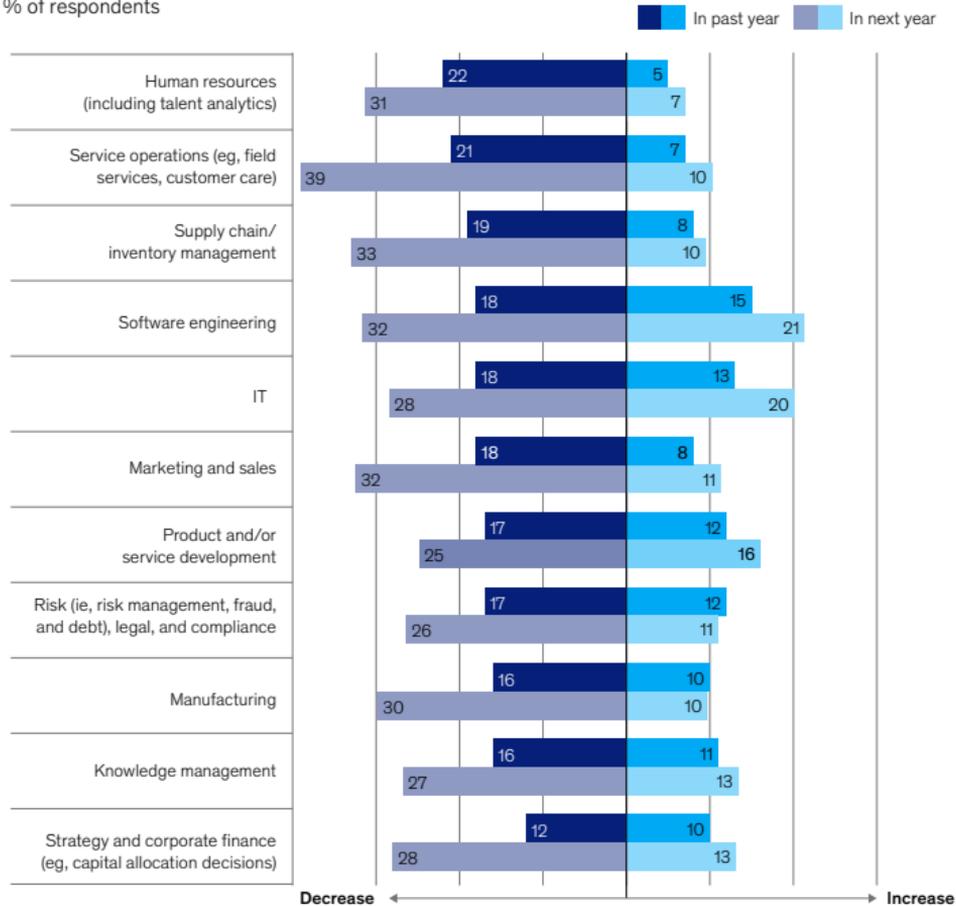


¹In 2017, the definition for AI use was using AI in a core part of the organization's business or at scale. In 2018–19, the definition was embedding at least 1 AI capability in business processes or products. From 2020, the definition was that the organization has adopted AI in at least 1 function, and in 2025, the definition was regular use of AI in at least 1 function.

Source: McKinsey Global Surveys on the state of AI, 2017–25

Change in number of employees over the past year due to AI in the given business functions,¹

% of respondents



¹Question was asked only of respondents who said their organization regularly uses AI in the given business function.

Source: McKinsey Global Survey on the state of AI, 1,993 participants at all levels of the organization, June 25–July 29, 2025

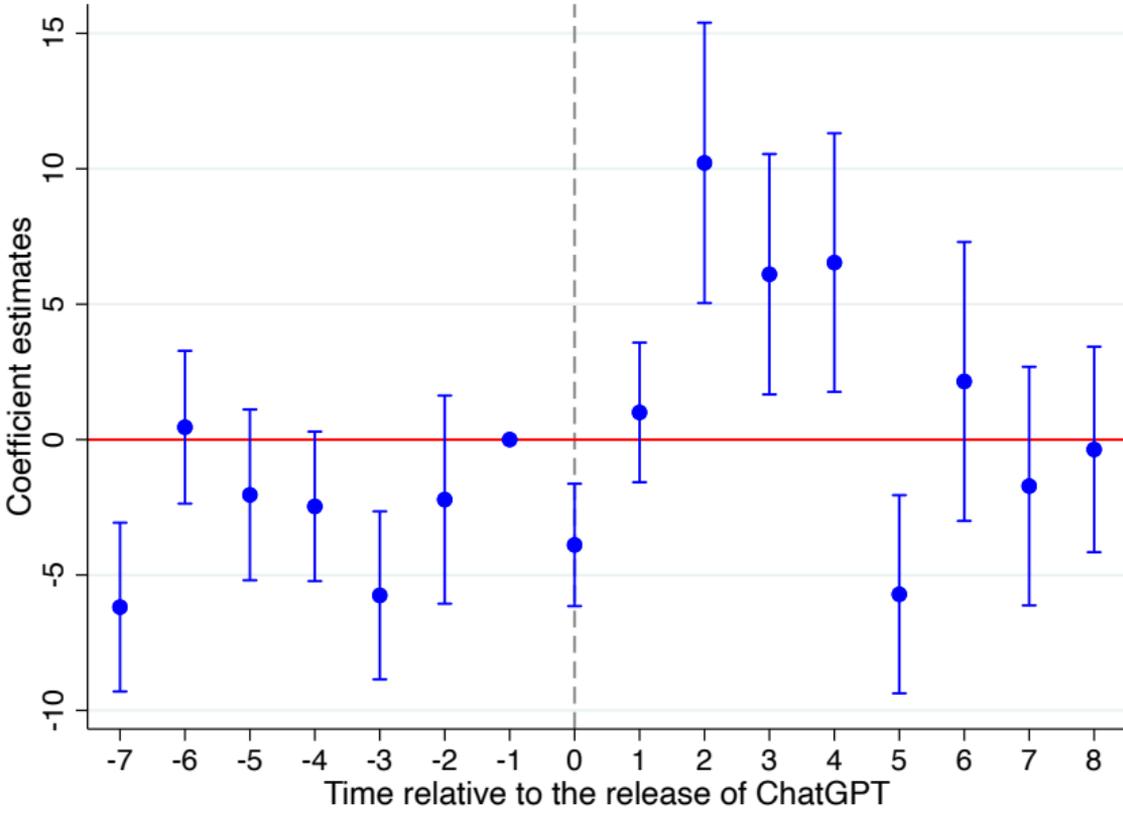
Comment 1: Background

- We are still in the early days of AI adoption in business.
- Its impact on entrepreneurship will evolve with model capabilities over time.
 - ↳ **AI as assistant**: preparing marketing materials, designing websites, customer support, personal assistance
 - ↳ **AI as co-founder**: co-development of core business idea, R&D, key part of the product/service

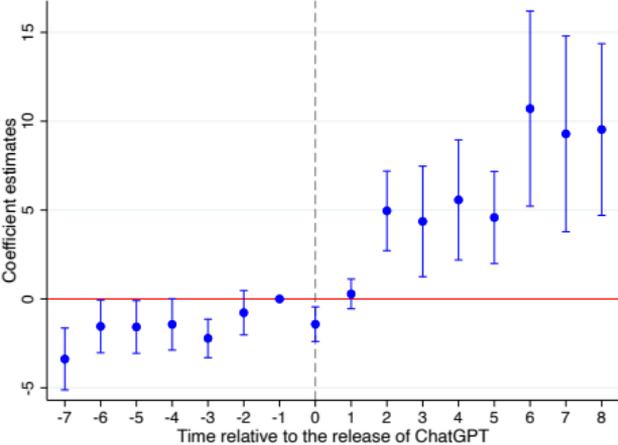
Comment 2: Mechanism

- Why is AI-specific human capital important for GenAI entrepreneurship?
 - ↳ Seems to contradict the “AI as an equalizer” sentiment.
- Possible explanations:
 - ↳ Local AI talents are early adopters of the new technology?
 - ↳ Non-technical founders still need AI experts to help them build AI-powered startups?
 - ↳ Pre-existing AI patents are proxy for local innovation hubs?
- AI innovation likely has a high hurdle:
 - ↳ Only 10,183 out of 166,156 grids (6%) have at least one AI patents in 2010-2019.
 - ↳ Be similarly selective in the placebo non-AI patent test.

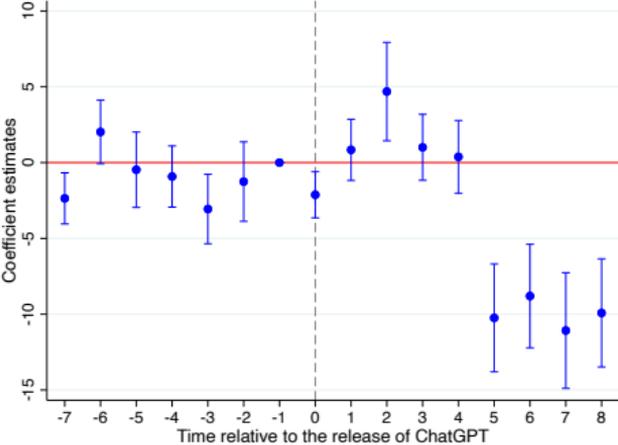
Dynamic Effects



Small vs. Large Firms



(b) Panel B: Entry of Small Firms



(c) Panel C: Entry of Large Firms

Comment 3: Welfare

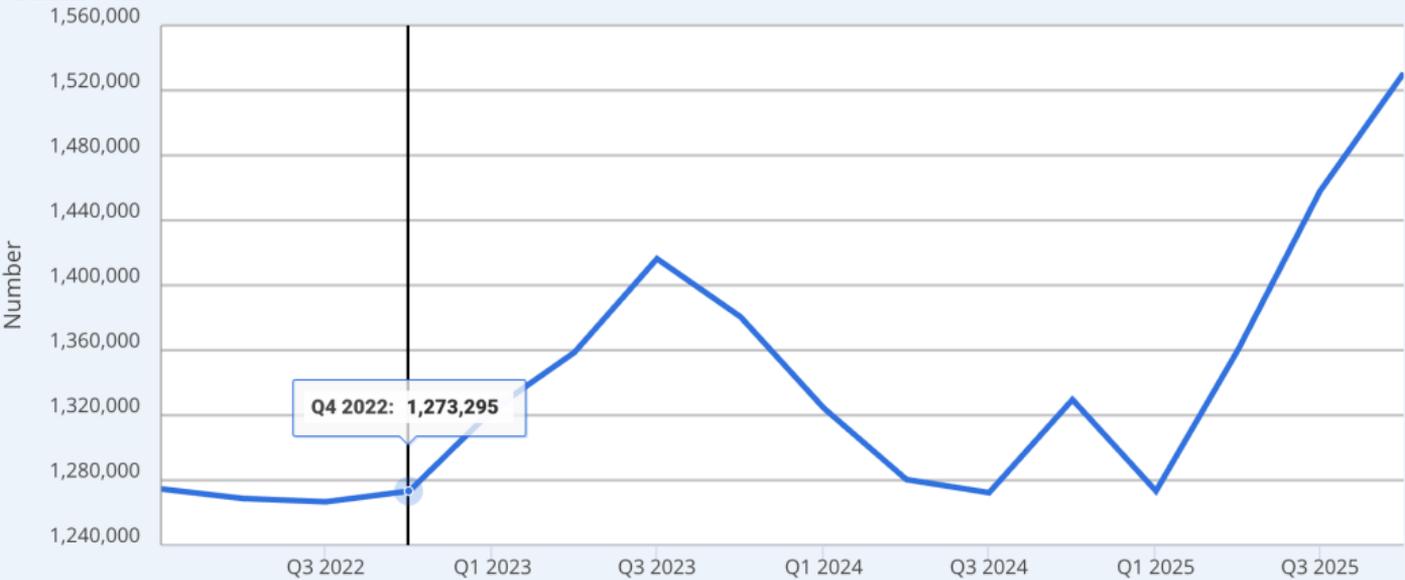
- AI may be lowering the fixed costs for starting a business permanently.
- If so, it could be changing the composition of new firms in several ways:
 - ↳ Average quality of business ideas might decline?
 - ↳ Worse quality for management teams?
 - ↳ Competition more intense among startups?
 - ↳ Faster prototyping cycles: succeed quickly or fail fast?
 - ↳ More experimentation: longer tail in successful startups?
- Would like to see more evidence on real performances:
 - ↳ Growth in firm size, sales, employment
 - ↳ Survival rates
 - ↳ Funding raised
- Or, maybe it is just a gold rush for low-hanging fruits?

US Business Applications (Seasonally Adjusted)

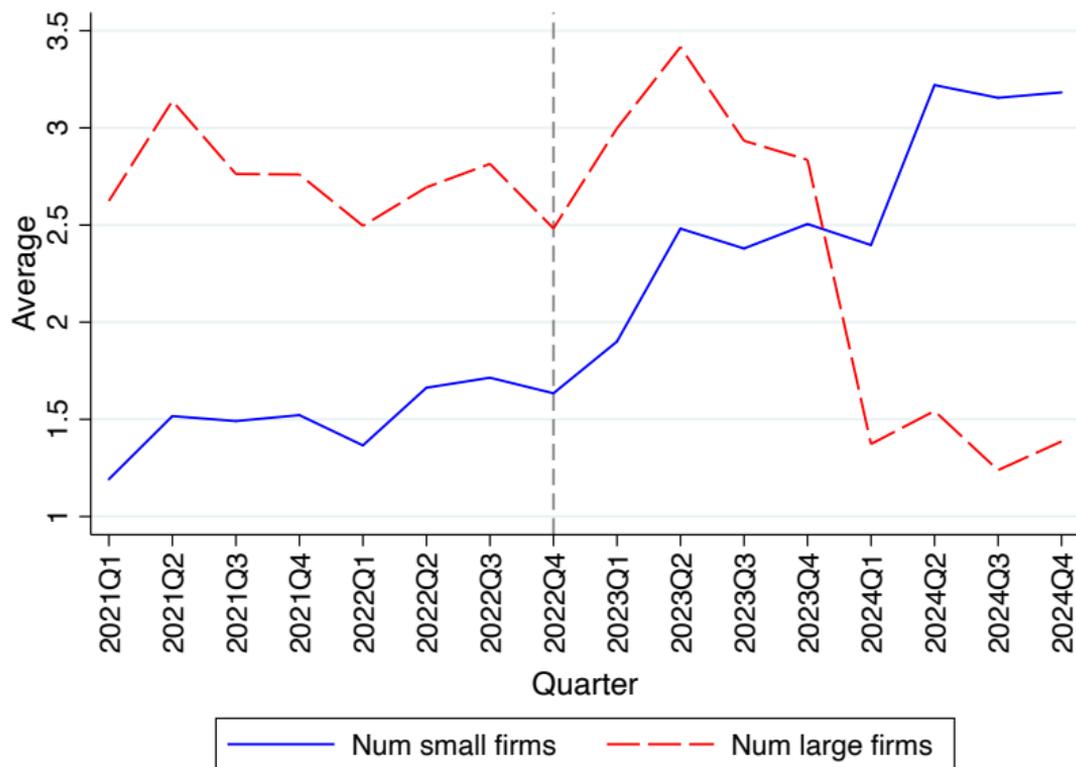
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Business Applications: Total for All NAICS in the United States



Composition Effect



Composition Effect and Welfare

- Small firms: registered capital < 1 million RMB.
- A very rough estimate of the change in total newly registered capital:
 - ↪ Assumption for registered capital: 0.5 mil for small firms; 2 mil for large firms.
 - ↪ Pre-Shock: $0.5 \times 1.5 + 2 \times 2.75 = 6.25$ mil RMB
 - ↪ Post-Shock: $0.5 \times 3.2 + 2 \times 1.4 = 4.4$ mil RMB
 - ↪ Annual reduction: $166,156 \times (6.25 - 4.4) \times 4 \approx$ **1.2 trillion RMB**
- A big change!
 - ↪ For reference, total private investment in 2024: 25 trillion RMB.
 - ↪ Of course, registered capital \neq actual investment. It's a multi-year soft commitment.
- Still, it begs the question: Is GenAI replacing large/ambitious startups with small/marginal ones?

Conclusion

- An important research agenda.
- Looking forward to more work from the team!