

AI causes marketplace oversupply: Mitigate it by tracking transaction value

Executive Summary: Two-sided, service based marketplaces face an oversupply problem

because generative AI significantly boosts their suppliers' productivity, but don't drive down marketing or customer acquisition costs.¹ In other words, a video editor or copywriter can now finish work faster, but can't find more work. There are two possible outcomes:

- *Destabilizing Outcome:* This increased productivity creates an oversupply, requiring prophylactic investment growth in customer acquisition.
- *Bullish Outcome:* The productivity boost lowers costs, increasing demand.²

Marketplaces must prepare to identify which outcome will be realized, as outcomes may vary industry-to-industry and change rapidly with the fast pace of AI innovation.

Action Item: Encourage monitoring of average transaction value and average job completion time, the key signals for predicting demand-side outcomes. Once job completion time begins to decrease, productivity has increased, likely due to AI assistance. If transaction value decreases slightly or stays level, productivity boosts are driving demand: the bullish outcome is likely. If transaction value begins to decline sharply without increases in volume, productivity boosts are not driving demand: the destabilizing outcome is likely.

LLMs help workers accomplish more tasks, but the tasks aren't yet "done better"

Studies across job fields have consistently shown large productivity improvements but smaller or negligible quality improvements.³ These studies don't provide evidence for positive or negative swings in demand, but heighten the need to evaluate demand.⁴

LLMs can't increase marketplace demand

Marketplaces rely on network effects and high-scale marketing to drive demand, areas where LLMs have yet to make an impact. With few salespeople on staff, increasing their productivity won't drive demand.⁵ Any small efficiency boosts will be negated by the increasing acquisition costs of meeting supply.

Marketplaces should prepare to increase customer acquisition spending

Productivity increase means services will be completed faster. If marketplaces detect it in the coming years, they can confidently attribute it to AI and should begin monitoring changes in transaction value: the value of each product will be fluctuating based on how the market reacts to this increased supply. If value drops significantly, oversupply is likely and increasing customer acquisition spending is critical to maximize the growing supply's value. It is unlikely that transaction value will increase because AI has not yet shown significant quality increases. If this changes, demand-side impacts become harder to predict.⁶

¹ While AI as a whole has been a part of marketing for a long time, large language models have yet to show conclusive outsized benefits in marketing the way they have in sales. Haleem et al. reviews the current landscape: <https://www.sciencedirect.com/science/article/pii/S2666603022000136#bib46>.

² See the Jevons paradox, <https://www.sciencedirect.com/science/article/pii/S0921800905001084>

³ Noy and Zhang, https://economics.mit.edu/sites/default/files/inline-files/Nov_Zhang_1.pdf. Dell'Acqua et al., https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4573321. Choi et al., https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4626276.

⁴ For an example of unpredictable outcomes of automation on demand, see translators' wages—which have stayed constant despite large productivity increases and automated alternatives. "AI & Labor" lecture by Arvind Narayanan.

⁵ Brynjolfsson et al., "Generative AI at Work," <https://www.qsb.stanford.edu/faculty-research/working-papers/generative-ai-work>. Singh et al., "A case study of Generative AI in MSX Sales Copilot," <https://arxiv.org/abs/2401.04732>.

⁶ If AI-powered incumbents create more cost-effective marketing pipelines, marketplaces will be less vulnerable to sudden spikes in customer acquisition costs. Marketplaces should closely monitor startups in this space.