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Early adopters of AI will share a global profit pool valued at $1 trillion. Will your company be among them?

From the dexterity of Amazon's Kiva robots to the facial recognition in Apple's iPhone X, artificial intelligence is increasingly sophisticated and accessible. It also promises to be a rich source of profit uplift — up to 10% of revenue, depending on your industry.

Nevertheless, more than 95% of companies have not embraced AI technology to reinvent how they do business. [1] Even though there are many unknowns regarding AI's capabilities and uses, our research at the McKinsey Global Institute suggests that following a wait-and-see strategy for too much longer could be a costly mistake.

How costly? When we collected more than 400 use cases in 19 industries and simulated the dynamics of AI diffusion (based on current corporate intent to adopt, the technology's impact on cash flow, and the profit growth linked to adoption), we found significant divergences in the patterns of economic growth between early adopters of AI at scale and non-adopters. [2] In the simulation, early diffusers — that is, companies that will use a full suite of AI technologies in the next five years — doubled their normal profits by 2030, bringing in an additional 4% of gross profit growth annually at the expense of their competitors. When we extrapolated this on a global basis, it equated to a shift in corporate profit to early AI diffusers of approximately $1 trillion by 2030, or 10% of the current profit pool.

Competitive Intensity Matters

The corporate diffusion of new technologies typically follows an elongated S curve — slowly rising at the start, steeply climbing in the middle, and then flattening again as the technology becomes commonplace. The curve rises slowly at the start because most companies weigh the option of waiting for the technology to mature against the

risk that their rivals will beat them to the punch, and they decide to wait. [3]

Sometimes waiting can be a winning strategy, but that outcome depends on the intensity of competition. In banking, for instance, a low level of competitive intensity around ATMs — caused by the lack of interoperability payment standards — lessened the risk for late adopters. In contrast, a higher level of competitive intensity around IT systems across industries raised the risks for late adopters. [4]

Our surveys suggest that the level of competitive intensity surrounding AI could be intense, accelerating the speed of diffusion. Early AI adopters told us that their companies are more focused on using AI for top-line growth than for internal efficiency. On average and across sectors, including retail, transportation, financial services, and manufacturing, the profit growth expectations of early AI adopters were 20% higher than those of their non-adopting peers. The early adopters attributed roughly half of this anticipated growth to pulling business away from their competitors.

Surprisingly, many non-adopters agree: More than 50% of them believe that early adopters — be they digital natives or aggressive incumbents — will drain their profit pool. One in seven non-adopters pegs the reduction in their profit at more than 10%.

We expect companies to act on this perception of competition intensity. When we ran a regression analysis to determine the drivers of AI adoption, we found that a non-adopter is more likely to reverse course and adopt AI if its main rival adopts AI. This result holds across AI technologies. Moreover, the propensity to follow rivals in AI adoption is high — about six times higher than the propensity of banks to follow rivals in the adoption of ATMs and twice as high as companies' adoption of IT enterprise systems.

The Window of Opportunity Will Close Fast

There is a key point on the S curve of AI diffusion when it becomes too late to profit from AI investments. According to our analysis, 50% of companies are likely to find themselves in that position because they will wait to adopt AI until revenue competition precludes cost recovery. One-third of those may choose to invest in some AI technologies in the hope that the gains they produce will counter the cannibalization of their current profit stream by rivals. The longer they wait, however, the more likely it is that AI gains will dissipate.

For the other half of companies, the salient question is not whether to invest in AI, but at what pace. That pacing will vary by industry, depending on its competitive intensity, the potential for AI returns, and the capabilities needed to secure those returns. Our analysis finds that, on average, these companies should start to adopt AI at scale within the next three years (and then start a major diffusion across all AI technologies) to optimize their chances of using it to build a platform for profitable growth.

My colleagues and I recommend the following initial steps:

1. Decisively reject a wait-and-see approach to AI and pursue adoption at scale as soon as feasible.

2. Focus on AI applications that yield product and service innovation to capture the technology's top-line benefits.

3. Complete your digitization efforts, because digitization facilitates AI absorption and provides the backbone for AI applications.

A lion's share of the competitive advantages and rewards of AI are going to be captured by its early adopters, so time is short.

About the Author

Jacques Bughin is a senior partner in the Brussels office of the management consulting firm McKinsey & Co. (@McKinsey) and a director of the McKinsey Global Institute (@McKinsey_MGI).

References

1. These figures are based on the results of two independent surveys — one of 3,000 AI-aware C-suite executives across 10 countries and 10 industries, and one of 1,600 global executives — conducted in 2017 under the auspices of the McKinsey Global Institute and Digital@McKinsey.

2. M. Chui et al., "Notes From the AI Frontier: Insights From Hundreds of Cases," discussion paper, McKinsey Global institute, April 2018.

3. S.R. Grenadier and A.M. Weiss, "Investment in Technological Innovations: An Option Pricing Approach," Journal of Financial Economics 44, no. 3 (June 1997): 397-416.

4. S. Dewan, C. Shi, and V. Gurbaxani, "Investigating the Risk-Return Relationship of Information Technology Investment: Firm-Level Empirical Analysis," Management Science 53, no. 12 (2007): 1829-1842.

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