How I use artificial intelligence to make better decisions in business

AI can be a decision-making ally. Here are five questions to ask yourself to make better decisions with data, judgment and leadership.

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By Miguel Angel Ariño

Artificial intelligence (AI) can boost decision-making. The question is not whether managers should use it, but how they should leverage it for the best results.

After researching AI applications in multiple sectors, I have often returned to a paper coauthored in 2019 by Yash Raj Shrestha, Shiko Ben-Menahem and Georg von Krogh, which is still relevant today. It identifies three effective ways to use AI in decision-making and describes five key questions to ask yourself when determining which mode to use.

Making decisions with AI: how much should you delegate?

There are three basic collaboration levels between managers and AI: autopilot, tandem work and side-by-side. Each has its own logic, timing and risk.

Autopilot. This is where decision makers delegate a task in its entirety. The algorithm makes its own choices, without human intervention. This is how dynamic pricing works in airlines, how delivery logistics routes are plotted and how online recommendation systems work. The advantages are speed and accuracy, but the results can be difficult to interpret.

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Though the decision is delegated, it's important to note that the responsibility for it is not. In 2024, Air Canada tried to argue that a chatbot that had given a passenger the wrong fare information was "responsible for its own actions," but this was struck down in court — a reminder to any company that delegating a decision to AI doesn't mean you won't be held liable for any consequences.

Human-AI tandem. Here, humans and algorithms take turns making decisions. Sometimes AI makes suggestions and managers decide, as when a system detects possible bank fraud and analysts review suspicious cases. Other times, it's the other way around: humans generate options and AI evaluates which ones have the most potential.

One example is a soccer coach who uses a machine-learning algorithm in trainings with players to analyze their performance, team play and the probability of scoring. Or SMEs can make better business decisions if they are furnished with rich market data, as my IESE colleague Ricard Gil found in a study: a bookstore combines the intuition of its booksellers with sales data, or a restaurant adjusts menus and staffing based on reservation patterns and reviews. In all these cases, the algorithm broadens perspectives, but the final decision remains human.

Side-by-side mode. This third approach can be seen as aggregation: The AI acts as another adviser, providing data and brainstorming scenarios, but never has the final say. This is the best model for strategic or leadership decisions, such as choosing a new CEO or expanding into a new country.

In such cases, AI might play devil's advocate. You could ask it to give you reasons why a plan might fail, and it will do so without fear or emotional bias. Its value lies in broadening the debate, not in replacing managerial judgment.

5 factors in choosing how to decide with AI

Using AI to make decisions is not a matter of technological faith, but rather of adjusting the collaboration model to the context. According to Shrestha, Ben-Menahem and von Krogh, these are the five key questions to ask when deciding to use AI.

1. How specific is the objective?

The more specific the information you need is, the better AI works. If the objective is to plan routes, recommend a product or adjust prices, the AI algorithm can take the lead. But when

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the goal isn’t so clear-cut, such as designing a strategy or managing a crisis, dialogue and joint reflection are required. AI responds well to precise questions but can lose the plot when things are more ambiguous.

2. How interpretable should the decision be?

When a decision requires justification — for example, in personnel selection or dismissals — a prediction without context is not enough. A chauffeur-driven car rental company was forced to reinstate several drivers because it had delegated dismissals to an algorithm, which meant management couldn’t justify them in a reasoned way. In such cases, working in tandem or side-by-side mode allows traceability without losing control or legitimacy.

3. How many alternatives are on the table?

Algorithms don’t get overwhelmed, but humans do. If there are thousands of similar alternatives — routes, prices, products — automation makes sense. But when the options are few and critical, such as an acquisition or an alliance, it’s best to combine data with intuition and context.

4. How soon is it needed?

When decisions must be made in milliseconds, such as setting prices, approving transactions or adjusting inventories, autopilot is irreplaceable. But if there is time to think, the exchange between humans and AI improves decision quality. AI speeds things up, but it isn’t a substitute for proper reflection.

5. How often must this choice be made?

The more repetitive or replicable a decision is, the more cost-effective it is to automate it. Algorithms do not tire or forget. In contrast, one-off decisions, such as a change in strategy or mass layoffs, require deliberation and moral judgment — the natural domain of human leadership.

What we learn through practice

Companies already using AI show that it can increase efficiency, but they also reveal its limitations. The algorithm is rational, but not moral. It learns from data and past human decisions, and it inherits our biases. For better or worse, it is us, amplified.

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Despite the downsides, the potential of AI is enormous. Applied well, it can boost talent and improve decision-making. But true value will continue to depend on human judgment, empathy and leadership. Companies that know how to combine data with purpose will be the ones that continue to make good decisions.

WATCH: "Cómo integrar la IA en la toma de decisiones" with Miguel Angel Ariño is available for Members of the IESE Alumni Association to watch on demand here (in Spanish).

MORE INFO: "Organizational decision-making structures in the age of artificial intelligence" by Yash Raj Shrestha, Shiko M. Ben-Menahem and Georg von Krogh. *California Management Review* (2019).

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