

# The Impact of AI on Finance and Accounting

CFOs and Controllers Need a Strategic Approach



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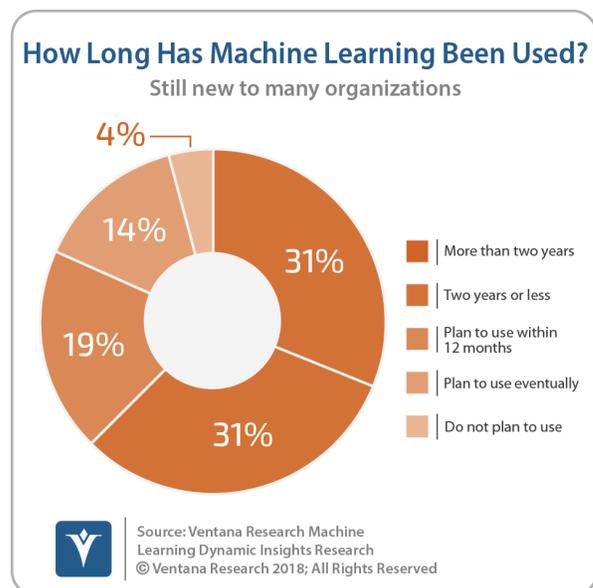
## Take a Practical Approach to Using AI

Futurists and software vendors have been pointing to a day when artificial intelligence (AI) using machine learning (ML) will perform miracles such as providing life-saving diagnoses and recommending treatments for even rare diseases in seconds. Prognostications also include eliminating legions of white-collar jobs by automating all manner of business processes, even those that require complex judgments and that aren't easily programmed. Realistically, though, these events are more than a decade away from being realized on any scale.

Meanwhile, artificial intelligence will have an ever-increasing impact on finance and accounting departments. It will increase individuals' productivity, eliminate tedious repetitive work and enhance the quality of financial data and statements. Artificial intelligence will enable CFOs and controllers to change the nature of the work done in the department, giving those that adopt it the ability to hire and retain the very best talent. The practical adoption and application of AI requires finance executives to adopt a fast-follower approach. The finance IT function, which is increasingly prevalent, should have responsibility for managing this fast-follower strategy.

Ventana Research defines machine learning as algorithms that have the capability to change (that is, learn) as more data and more outcomes are observed. We define artificial intelligence as the application of machine learning algorithms to task automation, often in a way that mimics how a human might respond to or manage a process. We're still in the early days of machine learning adoption. Our Dynamic Insights research on machine learning shows that only about one-third of participating companies (31%) have been using machine learning in any form for more than two years.

Because repetition is essential for machine learning, tasks for which there are clearly defined procedures and where conditions and outcomes are closely correlated are the strongest candidates for the application of AI. It's also helpful to have large quantities of readily available historical data. The tasks and processes central to accounting fit this description. The learning process also enables AI systems to statistically quantify the certainty that the chosen course of action is correct. Confidence in the degree of certainty



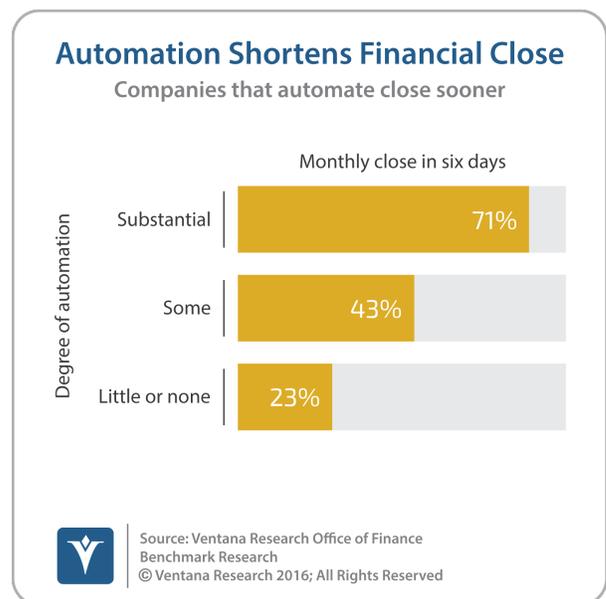


attached to a specific action increases as the system observes more conditions and outcomes.

The statistical observations serve several purposes. AI-based systems aren't confined to binary yes-or-no options. They can be programmed to kick a decision back to a human if a situation meets a certain threshold of ambiguity. For example, a staff accountant might intervene if the certainty level of a given course of action is less than 90 percent. If multiple courses of action are possible, the accountant would be presented with them and asked to choose. Each time there's a human intervention the system "learns" and is better equipped to make the right decision unassisted in the future.

AI-enabled systems must earn users' trust to eliminate the perception that it is functioning as a mysterious "black box." For that reason, AI-enabled software vendors must provide the means of building trust and transparency in their software by making the inner workings clear and allowing customers to test their system to ensure it is delivering expected and accurate results.

Over the next five years, AI will have a widening set of uses in finance department operations. This transformative technology will accelerate the delegation of finance department tasks to computers. Automating a broader set of routine financial close tasks, including wide-scale creation of routine journal entries, can accelerate the close process. Robotic process automation systems will evolve beyond their current capabilities to be able to apply more subtle judgments in data and process handling. Automation has proven its ability to increase the productivity of the department: Our Office of Finance benchmark research finds that a large majority (71%) of companies that apply a high degree of automation in their close can complete the process within six business days, compared to just 23 percent that apply little or none.



## Adopt a Fast-Follower Strategy

AI is just one manifestation of a key trend affecting finance and accounting department executives. Along with AI, a set of relatively recent technology innovations (including columnar databases, in-memory processing and conversational computing) are being incorporated into business software. Combined, they will have a more profound impact



on how finance and accounting departments operate over the next 10 years than technology has had over the past 50. To be competitive, CFOs and controllers must take a fast-follower approach to technology adoption. Fast followers are neither innovators nor

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laggards. They avoid the pioneers' pitfalls and benefit from their validation while adopting IT capabilities for their business purposes as soon as the application of the technology becomes practical.

Employing a fast-follower approach to adopting technology represents a significant shift in how a majority of finance and accounting departments operate. Our Office of Finance research finds that 60 percent of departments are at the lowest level of competence in using technology while only 5 percent are at the highest. In the past, there was no penalty for reacting slowly rather than finding opportunities to exploit technology capabilities when they become practical. However, delaying the appli-

cation of technology to finance department processes will increasingly have negative consequences for the department's performance.

Giving a Finance/IT group within the department responsibility for executing a fast-follower technology strategy is a practical approach to its implementation. Our research shows that half (50%) of midsize and large companies have such a group and they benefit from being less likely to experience issues working with software and analytics: 65 percent of companies without a Finance/IT function report having such issues compared to 35 percent with Finance/IT.

## Prepare for the Future

Technology in general and AI in particular have the potential to change the nature of work done by finance and accounting departments. Computers eliminated the need to keep legions of bookkeepers employed and the department's work shifted so that it required more skilled accountants. Technology enables the accounting department to both set its sights on providing the bigger picture and drill into the details at a moment's notice. Managing more of the work by exception — work that requires thought — will allow finance department executives to hire and retain the best staff. Over the coming decade, the job of the accountant will shift to spending more time using judgment and providing guidance because machines will take over most of the work that requires limited judgment.



The implementation of existing technologies will substantially change how the department works for the better. Wait-and-see is no longer the safe option. Rather than having to play catch-up, finance and accounting departments that embrace a fast-follower strategy can evolve more smoothly. They will be able to achieve the benefits of the important changes that new technologies such as AI can provide. By eliminating an increasing number of manual tasks, organizations will be able to offer professionals more interesting, valuable work and therefore are likely to have an advantage in attracting and retaining the best people, without which the best finance and accounting department isn't possible.

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