

ARTICLE

# Smooth sailing ahead: applying AI to financial forecasting

*Rough seas have become the norm across industries, as businesses go through ebbs and flows of profitability. To prevent potentially going under, companies look to financial forecasts as trusty navigational charts that can help with predicting and steering around troubled waters to ensure smooth sailing ahead. It is an essential task for virtually every organization, especially public companies legally obligated to disclose their economic health to shareholders. Forecasts involve reviewing past and current market conditions to predict financial outcomes, enabling proactive planning to increase projected growth and address possible issues.*

Traditional forecasting is a labor-intensive process. Revenue calculations typically require large crews to manually review classic business data (market demand, expected price, and a few other inputs), run statistical calculations, and create an outlook for different regions and markets. The whole process can consume considerable time and resources each quarter.

However, it is not only effort that is required. Forecasts are also prone to inaccuracies, as calculations often leave out other leading business factors (supply-chain data, availability of stock, etc.) and non-business factors (such as how the weather or current events can impact sales). Moreover, when multiple people are involved in producing a forecast, there is greater potential for human error. Forecasters can easily drift off course, which, with even a one to two percent discrepancy, could lead to billions in loss. Rather than continuing manually with all hands on deck, more companies are looking to digital technologies, such as artificial intelligence (AI) and machine learning. These solutions offer a new horizon that can dramatically improve the accuracy and efficiency of financial forecasts.

## Beyond what is humanly possible

AI can aggregate and process data with far greater speed, accuracy, and scalability than what is humanly possible, allowing companies to streamline and improve their financial forecasting calculations. And whereas people can feel overwhelmed by large volumes of data, AI thrives better when it has more data to feed its algorithms.

In mainstream conversational AI applications, voice assistants, such as Siri and Alexa, can answer common questions and execute tasks because they can tap into internet search results and user data from emails and multiple apps. For AI in financial forecasting, if a machine can use non-traditional data (such as weather data or availability of stock) in addition to conventional financial data (like regional market information), then it can find new relations between metrics and get a more accurate picture of expected revenue and sales. Thanks to digital technologies, like natural language processing, forecasting

teams can bring in previously unstructured data—the information in email texts, contracts, online transactions or financial statements—for even richer insights.

When organizations adopt machine learning, a system can identify patterns between multiple datasets and develop its own predictive models for future use cases. As more data becomes available and with continued use, these models become smarter and more accurate over time. They can even reveal the true drivers of business revenue. For example, using machine learning to analyze both financial and non-financial assets, a global technology discovered its traditional datasets (volume and price), had far less impact on its revenue than expected. In addition, the technology helped the company minimize its forecasting requirements from a three-week effort with a team of 100 to a two-day job for two people.

While machines play an important role in financial forecasting teams, people are still critical. After all, predictive models are only as good as the data that goes into them. Businesses need finance teams that have the process experience and industry knowledge, as well as data engineering skills, to review data for cleanliness, accuracy, and potential biases. They can become more like valued partners in the business, providing essential context to the models' outputs to the benefit of the enterprise.

## Taking command and charting the course

Bringing in digital technologies like AI and machine learning can present a significant change to teams used to manual, iterative financial forecasting processes. Despite the technologies' many benefits, staff need to be retrained through the changes. Investing in change management is a must to help people adopt new approaches.

Like all good officers aboard ship, executives should set an example for their crew and steer adoption by communicating how AI enhances their job. For instance, with machines doing the transactional work, finance staff are free to dedicate their time to more value-added activities such as identifying new potential revenue

streams. CFOs should stand at the helm, using machine-generated forecasts to guide the business' operational and strategic decisions. Improved insights through machine learning also elevate CFOs and finance teams to strategic partners to the business, as they can inform important enterprise decisions that shift the tides for a company.

Just as GPS technology has enhanced and all but replaced paper charts on modern sea vessels, consider how digital

technologies can drive forecasting accuracy, and with it growth, better performance and efficiency. As accuracy improves, forecasts become part of an organization's overall finance and business goals. Hence, there is growing buy-in among leading companies to invest and make AI for financial forecasting a reality in their business. They want to find greater value in their enterprise data, and uncover the insights that strengthen and reinforce fiscal planning and business decision-making.

*The article was co-authored by Vikram Mahidhar, Global head of digital transformation, and Vivek Saxena, F&A Service Line Leader at Genpact, and was first published in Dataquest.*

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