

AI steps in to save Covid-affected retailers

 By [Dean McCoubrey](#)

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Eskom's loadshedding, alongside an enduring pandemic, have proven a devastating combination, repeatedly destroying historical data, and demanding an (artificial intelligence) solution to predict the unpredictable.



Getty

The past year has been shaped by the pandemic. The uncertainty has influenced how organisations approach day-to-day forecasting of sales, people and stock, battling to manage fluctuating trading hours due to lockdowns, curfews, limited access to stock due to congestion in China – and now the [return of loadshedding](#).

To survive in 2021, businesses are desperate to forecast and manage their systems to ensure they're capable of handling the unplanned and unexpected.

Analytics, business intelligence, forecasting – these are the tools that organisations rely on when looking to make strategic decisions that impact the business and bottom line. Now more than ever, these insights can support stability and even unpack potential and opportunity in markets heavily impacted by uncertainty, lockdown levels and second waves.

According to Neil Rankin, CEO of Predictive Insights, artificial intelligence (AI) and machine learning (ML) can cut forecast errors by up to half and significantly change how organisations adapt and pivot. But, he adds, you need to combine this with current economic data and behavioural insights.

“In July 2019, we cut forecasting errors by up to a half. Since Covid-19 hit, we’ve seen an increase in forecasting errors and our models now reduce these by two thirds. Traditional methods have not been able to change fast enough to adapt to the changes we have seen,” explains Rankin.



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AI and machine learning not enough

The past year has been shaped by the pandemic and the uncertainty has influenced how organisations approach day-to-day forecasting of sales, people and stock; but it is not the only uncertainty businesses have to face.

Organisations need to be prepared for whatever gets thrown their way, from unexpected weather to supply chain collapse, to IT system failure, to suddenly limited access to stock – and even load shedding. Businesses need to be able to forecast and manage their systems to ensure they’re capable of handling the unplanned and unexpected.

“The epidemic rendered historic data patterns immediately redundant, leaving forward planning seeming like an impossibly blind task,” says Rankin. “And while AI helps, it is only when you use economics and behavioural insights to further inform your forecasting, can you ensure accuracy that shaves predictions down to the millimetre – to minimise over or under expenditure to the point that it has a measurable impact on the budget and business.”

The fact that most areas of business and markets are currently in flux has turned visibility into a commodity. The ability to predict labour scheduling to match customer behaviour and footfall in restaurants and retail stores, the expertise to forecast sales against limited instore engagement, and the skill to manage stock intelligently without running out or overcompensating – visibility into these numbers have a marked impact on budgets, profit and growth.

Understanding why and how people make decisions

Predictive Insights uses a combination of different skills and technical capabilities to deliver the type of forecasting that businesses actually need today. The highly specialised team combines behavioural economics – understanding why and how people make decisions – with data science and machine learning to ensure programmes and systems are designed to understand markets and customers, industrial organisation and financial planning more accurately.



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Augmented intelligence

A basic example, if you build a model to identify good employees for a specific job but the data set which you build your model on is overwhelmingly male and all successful ‘fits’ are male, then the model is likely to only recommend male candidates for the job.

Machine learning models are going to optimise on the data they are given, but it is essential for a human to understand the nature of the ‘data generation process’ to avoid unintentional bias from creeping in. The more (clean) data, the more insights, the greater the opportunity to adapt strategy to meet objectives.

"We go wider than just using machine learning or data science but also deeper, in that we understand the data collection process, the pitfalls and potential snags along the way," explains Rankin.

"Our models are constantly evolving and improving thanks to the constant data streams they absorb and learn from. Our forecasting system has beaten some of the most well-known tools on the market – our sophisticated technology, understanding of context, and curated data make our models more accurate. This cuts the forecasting errors of many of our competitors by half."

The bottom line

It's a significant statement. Cutting forecasting errors by 50% or more is the equivalent of cutting the costs of unnecessary labour on-site by half, consistently. Of cutting perishable food wastage by half, consistently. For one Predictive Insights client, this translated to a cut from R50m in forecasting errors to R25m.

"These savings can be translated across multiple stores and locations, all streamlined through intelligent data insights that are designed to improve processes and business planning," says Rankin.

According to Frans Meyer, CEO of Alphawave Group, the specialised technology investment group that has invested in 12 South African companies, including Predictive Insights, "The 'newness' and technical nature of the AI and ML space also means that there are lots of opportunities to expand on what has already delivered great results for businesses. We invest in businesses seeking to do things that are complex to replicate. Predictive Insights is solving real business problems which many companies now face in order to survive."

ABOUT DEAN MCCOUBREY

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