

# TURNING RAW DATA INTO RETAIL INSIGHTS

EXPORT CASE STUDY | MAY 2018

Australian firm HIVERY has solved business problems in the retail and FMCG sectors in Australia, the US, Japan and China using artificial intelligence (AI), helping customers generate ROI never seen before.

In 2014, HIVERY conducted an experiment with a fleet of 60 vending machines in Newcastle to test the ability of machine learning to optimise sales by recommending changes to the product assortment and space-to-sales ratio of available products.

Once the AI system was trained, it made recommendations that were implemented for those 60 machines and, a few months later, the changes had resulted in a 15 per cent increase in sales and an 18 per cent reduction in restocking visits.

HIVERY Co-founder and Director Franki Chamaki said the success of that trial for Coca-Cola Amatil proved that there was a role for machine intelligence to come in and augment human thinking by harnessing the mass of data available to retail and fast-moving consumer goods (FMCG) companies.

‘The term “big data” was very popular in the early 2010s and while companies talked about ways to leverage their data to inform business choices, technology at the time failed to deliver practical solutions,’ he said.

‘HIVERY is able to work with companies to design solutions that better leverage their data and generate a return on retail investment space by implementing AI-generated recommendations on product assortment, price, space and promotion.’

The company grew out of a hackathon that brought together entrepreneurs Franki Chamaki and Jason Hosking with data scientists Charles Gretton, Matthew Robards and Menkes van den Briel.

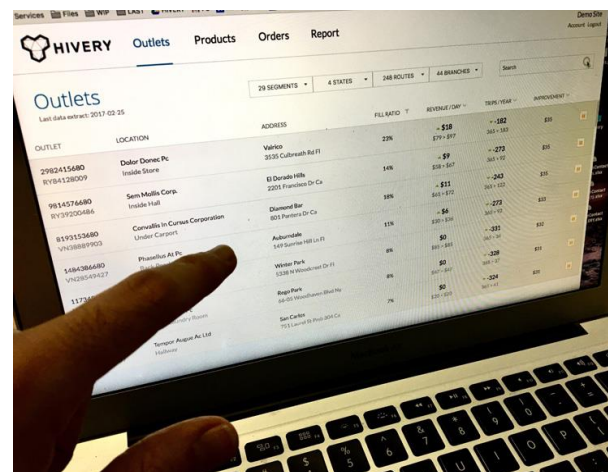


Image caption: HIVERY staff demonstrate the AI technology

**‘HIVERY is able to work with companies to design solutions that better leverage their data’**

HIVERY Co-founder and Director Franki Chamaki

Chamaki said that the HIVERY platform consisted of three main frameworks – AI (more specifically machine learning), operations research and human-centred design.

‘These elements combine to create AI solutions that are smart, easy to use and operationally effective,’ he said.

‘Significant opportunities exist for companies to make better use of their data, and our platform can apply analysis to optimise product mix, pricing formulae and retail space with a level of personalisation that is impossible to achieve without AI.’

‘We call it creating a “fingerprint” recommendation at an outlet or individual vending machine level.’



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## Bigger challenges

HIVERY has built much of its intellectual property (IP) through an engagement with The Coca-Cola Company, which has allowed it to engage with real industry problems and has resulted in a collection of beverage data that is potentially the largest in the world.

‘This means our AI algorithm has been learning from the best and most extensive datasets in the world, making our self-learning algorithm very accurate and novel,’ Chamaki said.

‘The Coca-Cola Company has been a great investor, customer and business partner, which has helped us scale and expand our operation in the retail and FMCG space globally.’

The company’s second investor and research partner is Data61, CSIRO’s data research group, which contributed the original technology IP that HIVERY continues to develop and apply to real-world market solutions.

The retail and FMCG space is HIVERY’s current focus, which means aggressive expansion into international markets.

Chamaki said the company had active engagements in Japan, the USA and China, and was exploring Europe and Latin America through other sales representative and distribution-type relationships.

‘The culture differs from market to market but our AI applications are universal – we are solving the same problem, which is to help our customers generate ROI never seen before,’ he said.

‘Our first interactions with customers tend to be education-related conversations and demonstrations of how AI works and why it’s different to the way human minds approach problem solving.’

A self-learning ‘machine construct’ looks at data without the assumptions that colour human problem-solving approaches, and can generate new solutions to business challenges because it isn’t influenced by these underlying unconscious biases.

## Inventing the future

The staff at HIVERY first heard about the Export Market Development Grant (EMDG) while attending startup sessions and, in addition, from their accountant.

Chamaki said EMDG had been of enormous help to reduce risk in marketing and sales efforts in Japan and the USA.

‘It gave us the confidence to expand overseas, which helped us secure a lot of international

business, to the point that about 80 percent of our revenue is now coming from international sources,’ he said.

‘Working with an Austrade-authorized consultant made the process very clear and helped us prepare our documentation, receipts and travel itinerary with rigour.’

‘All in all, what impressed us with the process is Austrade’s genuine effort to help Aussie company succeed internationally.’

With HIVERY solutions generating ROI of (on average) six-and-a-half weeks, the company is garnering some attention, being named a Sydney startup to watch two years running by tech industry publication The Martec.

The team is continuing to develop new FMCG and retail AI solutions in Australia for commercialisation and export, something they hope to model successfully for other Australian entrepreneurs.

The success of Australia in international markets is one of the drivers behind the HIVERY team, with a desire to bring other Australian companies in the tech space along with them, Chamaki said.

‘The biggest thing for us is that we are proudly an Australian AI company and we want to be an example of the way Australian intellectual investment can achieve overseas,’ he said.

‘We need to be a clever country and be leaders in intellectual investment, providing support for startups who push the envelope in technology, and moving away from our reliance on our natural resources as the nation’s key export.’

## About Austrade

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