Algorithmic Underwriting in Specialty Insurance

An implementation guide in six case studies

INSTECH LONDON

Introduction

This report is a companion to **A Practitioner's Guide: Algorithmic underwriting in commercial and specialty insurance**, published in October 2021. That report was a 'Beginner's Guide' to algorithmic underwriting. In this one, we provide further insight into how to implement algorithmic decision-making in the underwriting process and how to evolve it over time by adding new data sets and refining the algorithms.

We have focused on four case studies from early implementers of algorithms for commercial and specialty insurance - **Ki Syndicate**, **Vave**, Rethink and **Chaucer** with **Artificial** - together with the observations of two leading suppliers of administration software - **Guidewire** and **Verisk** Specialty Business Solutions. A massive thanks to the six contributing companies for sharing their knowledge and allowing us to reproduce it here so that everyone interested in the topic can be guided accordingly.

We are supplementing the observations and experiences of these six companies with analysis of our own. We have sought to extract insights from their source material on what has been learned, the current state of play and what the future might look like.

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Before, now and after

It has long been our belief that transforming the entirety of a 20-plus-year-old legacy technology stack into a shiny new digital business is too complex, expensive and time-consuming for most insurers. By and large, history has proved this thesis to be right.

It is because the insurance industry found it so hard to digitise that the insurtech scene got its oxygen. Inspired by what was happening in fintech, smart people (largely outsiders) realised that these industry shortcomings represented an opportunity. There was value to be created in digitising it for them.

For a short while, back in 2015/6, the insurtech narrative was about disruption, but for most of the past 5-6 years, incumbents and the insurtech world have worked in relative harmony, with cooperation and partnerships being the prevailing model.

We are seeing for the first time in these case studies something different. It is in effect, an incumbent insurance player giving birth to its own insurtech start-up. Given it seems like such an obvious thing to do, why only now? We think there are three reasons:

Technological limits	The relevant technology has improved beyond recognition in the past five years.
Limited in-house expertise or leadership	Workforce composition is changing and there is an increased leadership recognition of the benefits of a technology-focused approach.
Lack of an imperative to force the issue	Increasing scrutiny of the time and expense of doing business in traditional ways and the consequent squeeze on profits.

Where does that leave us?

The incumbent insurance industry has long railed against "frothy" valuations placed on the new generation of technology-enabled MGA's and full-stack insurers. Investors have been taking a different view backing businesses that are building the digital brokers, agents and insurers of the future because they believe that they will end up outcompeting those wedded to traditional models and technology. In theory, at least that must be right. If the lessons learned from other industries are anything to go by, technology will over time allow algorithmically enabled businesses to price better and provide superior customer service off a greatly reduced cost base.

The extent of the competitive advantage that algorithmically powered digital models creates has not yet been realised. Algorithms take time to learn and adjust, and organisations need time to adapt to new ways of working. The counterparties you deal with are wary of your new approach. At some stage, the chickens come home to roost. We are getting close to that point now.

In our view, this leaves the companies mentioned in this report and any others like them who have invested in algorithmic underwriting capability in the commercial and specialty space very well positioned. They have the same genuinely digital technology capability that the recent generation of highly valued start-ups use. They are then able to augment that with deep insurance knowledge, existing distribution channels and the insights that a wealth of historical data will add.

Does that mean that a successful algorithmic business in the commercial and specialty space is or could attract the same high valuations applied to some insurtechs? There is of course the need for greater realism when it comes to valuations in general, but in theory, why not? This was a theme first aired by **Insurance Insider** at the end of 2021, where they highlighted the $850m valuation secured by US homeowners insurtech TypTap which was spawned from within parent HCI and had been a major influence in driving the impressive increase in the share price of HCI through 2021. The article also picks out Ki and Vave as being potentially in the same category, which they palpably are. Vave has not sought external investment, but Ki raised an impressive $500 million in capacity from private equity investment giant Blackstone and parent company Fairfax.

The age of the incumbent insurtech?

The case studies establish beyond any doubt that we now have the technology to run an algorithmic insurance business in commercial and specialty and that to get it you can either build yourself or partner with specialist providers. Incumbents that understand that and have the right leadership can bring algorithmic businesses to market in time frames and at costs that won't sink the mother ship.

Perhaps the more striking theme to emerge is that we are entering the age of the genuinely digital incumbent – at last. After several false dawns and a plethora of previous failed attempts, we are now seeing commercial and specialty businesses owned by incumbents that are truly digital and across the whole value chain (this report includes examples of an algorithmic broker, an MGA and an insurer). Is this then the dawn of the age of the incumbent insurtech?