Future Portfolio Management for Specialty Insurance

In their recent report entitled 'Portfolio management in the London market: What separates the best from the rest?', Willis Towers Watson has produced a true vision for the future of portfolio management for specialty insurance. You can check out the report for yourself at the following link: https://www.lloyds.com/news-and-risk-insight/risk-reports/library/understanding-risk/portfolio-management-in-the-london-market-what-separates-the-best-from-the-rest

In describing approaches for getting there, possibly one of the most insightful comments contained in the report suggests that "Having the best data and data analytics capability is important to overcome these barriers (i.e. cultural barriers, capacity and capability constraints, technology limitations), but ***it is how the data is organised, and therefore analysed, that delivers true competitive opportunity***. Being able to view the portfolio through any business mix combination and to draw upon standardised data assets is fundamental to the design of the data architecture."

Basic questions such as 'how exposed are we to this event type?', or 'how much of our business is written in this industry?' are common in portfolio management. All too often, however, these simple questions, fundamental to strategic and operational decision making, do not find quick and accurate answers.

Information aggregation is therefore the challenge, and as the Willis report makes clear, without a well-thought-out data architecture, the process of aggregating data is a long and painful one, often yielding inaccurate results after days (or even weeks) rather than accurate results in seconds or minutes.

So, yes, the report is absolutely spot-on by describing, in some detail, how well executed portfolio management can benefit the business by following, amongst other things, a 'data-led strategy'. What the report does not describe in the same level of detail, however, is how we might go about designing the data architecture.

The process of designing a data architecture requires a better understanding of three main aspects:
i) Identifying the 'data points' e.g. limits, premium, tax, jurisdiction clause etc.
ii) Where this data is used and how it affects other pieces of data i.e. the relationships.
iii) When can this data be used, and how, and when can it ***not*** be used and why i.e. the rules and conditionalities (if/then statements) and their application to data points and sets.

Our observation is the first of these is generally well executed, however, the second and third are still seen as optional and therefore aspirational. Worse, when rules/conditionalities are needed they are usually hidden away in coded systems (or in the heads of individuals).

Only when a solid data architecture exists, can the collation of information for portfolio analysis be easily automated. This in turn allows the decision-making to be informed by true data-led insights, thus turning the effort into a genuine partnership between man and machine. This will transform the speed and accuracy of this decision-making, an aspiration which hitherto has been pretty much impossible, particularly for the more complex forms of insurance.

At Axiome Partners, we are seeking to redesign the digital foundations of the complex risk and specialty insurance industry, and in particular, to put computable contracts at the heart of the value chain. This means building truly digital contracts with both structured data and rules, and accurate representations of which can be presented to humans and computers.

As presented in the previous article (number two in our series:(see https://axiomepartners.com/articles/), computable contracts will be connected to 'plug-ins' for risk description and loss modelling, placement, claims and payments management, and it may well also be connected to a portfolio management application to support better decision making.

Of course, portfolio management tools exist, many with impressive-looking graphics and user-friendly dashboards. But, the lack of structured data from elsewhere in the value chain, that should be fed directly to the application, is compensated for by building it into the application itself.

Because the contract is, in essence, the 'glue' that holds all of these bits together: the risk, the pricing of the risk through loss modelling, the placing of the risk, and various processing activities, it provides the perfect conduit for a portfolio management tool to obtain the required data (or at least most of it) in a structured form.

Yes, you could try to draw all of the information from various existing platforms and cobble together what is needed, and which may well be enhanced with various AI boondoggles, but in many ways, you are not moving much further forward than where we are today.

A Practical Next Step

It is a very time-consuming and painstaking activity, but for the digital reengineering of contracts, the practice of building 'knowledge graphs' is important. A 'knowledge graph' (or a 'schema' for data scientists) is something that shows groups of data/information and the links that exist (or should exist) between these groups.

By looking at where the data resides as well as the data connectivity (i.e. how and whether links have been made), a sense of how easy it is to aggregate the data can be obtained. Much of the multiple inputting of data stems from missing links, which in turn is a result of a poor information architecture.

So maybe you could start with a portfolio management question; then identify all of the data points (or sets of data points) that you need to answer this question; next, establish the connections between these data points (and whether they exist or not in practice in/on various platforms); and then finally, draw a knowledge graph that highlights some of the shortcomings in terms of connectivity and interoperability.

Next Time

Interoperability is an important area as it can only work if there are defined standards. In the next installment, number four, and the final one in this series, we will look at the future for standards to support the insurance information architects.

John Cummins and Alastair Burns, October 2020