

THE ANALYTICS BOUTIQUE

Analytics made friendly

Best analytics solution

Best stress scenario software

Rafael Cavestany Sanz-Briz, founder, The Analytics Boutique, explains the thinking behind the OpCapital Analytics tool for modelling operational risk and regulatory capital calculation

What have been the major drivers for insurers to invest in analytics solutions in the past few years?

Clearly there are several. One of the main necessities at present is to get a more accurate and detailed view of the company risk profile as well as understanding the actionable measures required. Once you have an accurate and detailed view of your risk profile you can better identify what are the best risk mitigation strategies.

At the same time, the model and data validation demands on insurers have increased. New regulations require greater proof and documentation to show what companies are doing and for this to be checked in an independent and verifiable manner. That increases cost and workflow. Being able to carry out these processes efficiently is a big driver of analytics investment.

How important is it to have an end-toend solution?

An end-to-end solution means something that is created to solve a complete and specific problem. When you have integration and consistency the solution ends up being more user-friendly and maintainable. For instance, OpCapital Analytics allows companies to store all the inputs and assumptions in a consistent and structured manner so that the validation task and regulatory reports are done very efficiently. It was designed to provide an end-to-end solution and generate all required analytics for effective operational risk management.

What are the cutting-edge analytics that insurers are beginning to implement these days?

The hybrid model approach is most cuttingedge right now meaning being able to use multiple types of information in the model: this includes scenario analysis from expert



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judgment, internal loss data, external loss data and other relevant management metrics such as KRIs. These analytics need to be efficient and user-friendly and at the same time have full-model governance. Using OpCapital, an insurer can put together all different inputs into the same model in an efficient manner to enforce strong model governance.

Regulators are demanding that insurers improve their management of assumptions and provide audit trails of decisions. How are you helping firms achieve that?

The Analytics Boutique's operational risk modelling solution helps insurers with its strong audit trail log which automatically captures all assumptions (including data filters, distribution selections, adding of external loss data, stress shifts and more) in a highly-structured format. This structured format allows users to automatically create, by the push of a bottom, a detailed model validation report which permits fully model replication if this validation report is given to an external analyst. The audit trail and model validation report includes things such as the Monte Carlo random seed for exactly replicating the OpVaR results.

Measuring and managing operational risk has been a big challenge for insurers. How are you helping them in this regard?

Operational risk modelling is full of sophisticated and non-standard analytics. Too frequently, the sophisticated analytics these days are not owned by institutions but by a reduced group of coding gurus who create the in-house models. Companies may think they own the analytics processes internally but that is just an illusion. Understanding of the code can be very specialised so that you end up creating strong dependencies on a small number of analytics coders. If one of these coders leaves it can be a problem.

OpCapital is easy to understand and has been built to be very user-friendly so it can be quickly implemented. The documentation around it and the multiple validation processes it has been through means it is bullet proof. These days institutions need to be owners of the model not the coders who created it. So we want to emphasise the transferability of the model expertise.

What do you see as the next big evolution in analytics?

Machine learning is a big evolution in analytics. Companies do a lot of collection of operational risk metrics but few translate that into an objective data-driven impact assessment. Despite all the information collected the challenge is on how to use it to predict operational losses and exposures—machine learning helps here.

The Analytics Boutique is implementing machine learning into our op risk solution to gather all operational risk indicators and analytics on possible losses and provide management with indicators and objective references to the real exposures they have and how they can avoid losses on these.

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