NeuralMetrics™

The Evolution of Commercial Underwriting

In an industry issues roundtable, NeuralMetrics chief technology officer **Sathish Kumar M**, chief underwriting officer **Chris Schrenk**, and senior product manager **Neha Yadav** discuss how underwriters can benefit from artificial intelligence (AI) and cognitive technologies — to improve risk assessment and pricing accuracy, accelerate quoting, and enable data provenance for consistent regulatory compliance.

Q: What value does the latest generation of technology bring to underwriting?

Sathish Kumar Manimuthu (SK): Insurance organizations are increasingly embracing the digitization of commercial underwriting, recognizing that outdated manual processes and legacy systems are insufficient to compete in the modern economy. Innovations in underwriting technology are well underway. A prime example is the use of AI and the machine learning capabilities of large-language models to combine human expertise, data, and automation for faster and more accurate commercial risk evaluation.

Collecting timely and comprehensive exposure information is a critical aspect of insurers' operations, as it informs various insurance processes to facilitate precise risk assessment, as well as policy pricing, and quoting. With the aid of AI and machine learning, insurers can now leverage potent analytic tools to transform a wide range of data sources into actionable underwriting insights.

Neha Yadav (NY): Insurance organizations are continuing to streamline underwriting processes, enhance the accuracy and transparency of data sources, and differentiate their offerings with exceptional agent and policyholder experience during submission interactions, as well as policy and claims services. In pursuit of those objectives, they are exploring the power of intelligent technology to deliver dependable and validated data and analytics for underwriting and other insurance workflows.

As an increasing amount and scope of commercial risk-assessment data becomes available and the confidence in data sourcing and quality rises, insurers can expect to improve underwriting efficiency and accuracy, while also reducing submission cycles.

In commercial underwriting, gathering expedient data can be time-consuming, and often involves meticulous but time-consuming research into a range of factors such as the location, surroundings, on-site or remote property inspection, business practices, and more. Now, with just a business name and address, intelligent technology and its abilities to obtain a wide range of data sources allow underwriters to quickly access extensive layers of risk information about insurable and in-appetite entities.

Q: What modern technologies can enrich underwriting capabilities and deliver a superior policyholder experience?

SK: At NeuralMetrics, we specialize in advanced technologies such as artificial intelligence, natural language processing, vectors, computational graphs, and other cutting-edge tools to extract reliable and qualitative risk insights from small data. Through these methods, we establish meaningful connections among and within a range of public data, enabling us to derive real-time actionable intelligence for underwriters. We can tap into extensive sources of structured and unstructured data, a significant portion of which is publicly available and can be curated, organized, and tailored specifically for underwriters. AI-powered data engines from NeuralMetrics allow insurance organizations to strengthen industry classification, precisely identify risk attributes, and make informed decisions about expanding or competing in various business sectors.

Chris Schrenk (CS): Having a comprehensive underwriting system and fresh, contextual data is vital for insurers to evaluate commercial business quickly and efficiently. By presenting all the required data about the business in one central location, underwriters can make informed decisions without having to access multiple systems or scour the internet for information. Consolidation of data streamlines the decision-making process, resulting in improved overall efficiency across underwriting operations.

For insurers, it is crucial to work with technology and data partners who can tailor their platforms to specific business needs. Third-party platforms and solutions should be flexible and responsive in real-time, and should reinforce current processes while being adaptable in expanding data requirements for improved risk evaluation. It's especially important for data engines to provide transparency into the data sources used for risk assessment, and such platforms should be easily customizable to conveniently accommodate new or additional classification and exposure questions from underwriting teams. A knowledgeable technology partner should offer practical and valuable suggestions to swiftly advance underwriting proficiency beyond the scope of traditional risk attributes and evaluation methodologies.

SK: Furthermore, it is imperative for insurer systems and data platforms to communicate seamlessly, boosting the policyholder experience. Insurance organizations often have separate systems for evaluating risk, administering policy service, conducting premium audits, submitting claims, and more. If interoperability is constrained or unreliable and data is scattered and replicated, the result is layers of inefficiency, inaccuracy, and cost in core workflows. For example, in the commercial business sector, policyholders may need to be contacted and required to provide the same information multiple times within the same policy period.

Q: Why should underwriters place a premium on data transparency?

CS: Maintaining reliable visibility into and across data sources is crucial for regulatory compliance, particularly with emerging requirements and laws related to personal data and the ethics of AI. Insurers utilizing third-party data must clearly identify the sources of information, to ensure confidential data is avoided, and they have the right to use that information for unbiased risk assessment and pricing. We design transparency in the NeuralMetrics data engines, so when they extract information for diverse risk and exposure questions, they also display the specific sources and confidence levels in the data used to answer those questions.

Transparency is beneficial to insurers as it builds underwriter trust in the smart technology which is curating the data in real time. If underwriters can gain and maintain confidence in the data, they are much more likely to adopt and support automated underwriting.

For the technology to be effective, the data they generate must be transparent and not in a "black box" mode. Underwriters need to unambiguously understand where risk and exposure information comes from, and be able to instantly validate and rely on the critical inferences from those data sources.

In addition, transparency can help eliminate potential bias, so personal opinions about a specific business category can be removed in the risk assessment process. By employing data engines and solutions with built-in source transparency, human bias can be eliminated or significantly reduced.

Q: How is the technology-driven transformation of underwriting benefiting policyholders?

CS: Digital transformation streamlines the process for businesses to obtain suitable insurance coverage. Traditional risk assessment, rating, and quoting methods involve agents inputting information into a system, followed by a series of manual and personal interactions over long periods of time, which can result in inaccurate risk assessment and refusal by insurers to provide coverage.

At NeuralMetrics, our technology aims to provide opportunities for insurers and commercial enterprises to set data-driven parameters for in-appetite insurance coverage. Policyholders sometimes face difficulties in obtaining insurance due to limitations in the quality of information available to, or provided by, agents and brokers. We strive to level the playing field by presenting commercial underwriters with consistent and comprehensive risk data, enabling a wide range of businesses classes to qualify and obtain the right insurance coverage at a fair price.

Q: What are some next steps in the evolution of underwriting?

NY: Underwriting technology is becoming more than just a transactional tool, and it is transforming into a growth engine. The traditional approach to underwriting and pricing involves reviewing historical loss trends to assess risks, exposures, and loss incidences. However, a significant shift towards a more data-driven decision process is underway, and it is mostly driven by cognitive technology and data availability. With access to real-time data, insurers and underwriters can better identify optimal price points for accepting and writing risks.

The industry is also making considerable progress towards achieving actual straight-through processing (STP), particularly for some of the more common classes of risk. A key objective for underwriting efficiency is achieving touchless submissions, but so far most STP solutions essentially augment manual processes with customary systems and tools. However, with cognitive and digital technologies becoming prevalent, we are close to realizing true straight-through processing, especially for insurance products that typically rely on standard risk data.