

INSIGHTS

JANUARY 2023



THE POWER OF THREE

Technology, Innovation, and Data Analytics are Shaping the Future of Insurance

INSURANCE REDEFINED

Parametric Insurance is Revolutionising the Industry

CELL CAPTIVES

A Smart Solution for Managing Unique Risks

HARNESSING THE POWER OF AI AND BIG DATA

A Powerful Tool to Identify, Assess and Manage Risks

Editor's Note



Welcome to the January issue of our newly rebranded monthly newsletter: INSIGHTS!

As we begin the new year, the insurance industry is facing a multitude of challenges, from global recession to ongoing geopolitical conflicts. However, amidst these challenges lie an opportunity for insurers to leverage technology and innovation to not just survive, but thrive.

Technology is revolutionising the way insurers assess and manage risk. From big data and AI to IoT and blockchain, these cutting-edge tools are enabling insurers to gain a deeper understanding of their customers, improve underwriting processes, and reduce the potential for fraud.

Innovation is also playing a key role in the insurance industry. Insurers are looking beyond traditional products and services, and are developing new, innovative solutions to meet the ever changing risk landscape. Captives and parametric insurance have grown to become an important risk management tool.

As we move forward into 2023, it is clear that technology, innovation and data analytics will continue to shape the future of insurance. Insurers that embrace these trends will be better positioned to navigate the current challenging economic climate and emerge stronger on the other side. So let's embrace the power of three and make this year a success.

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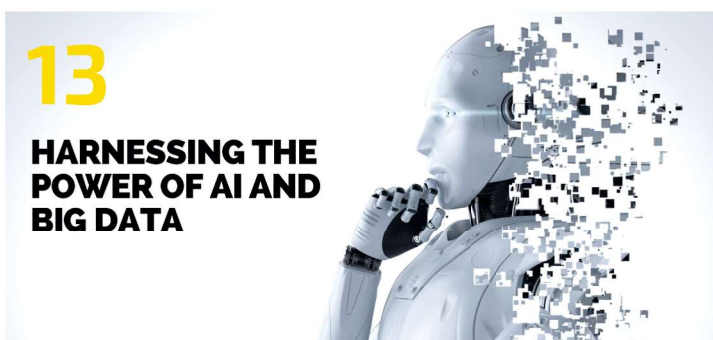
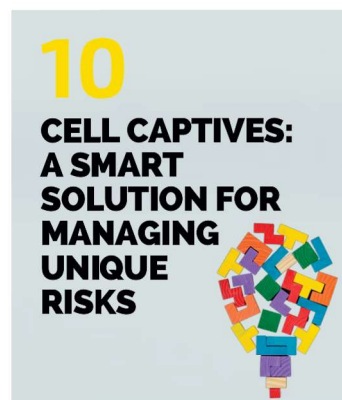
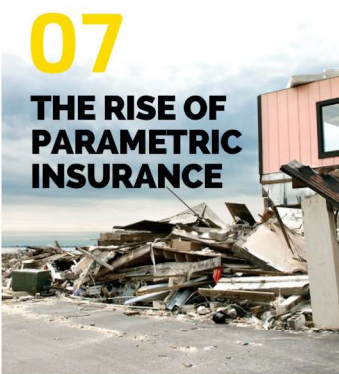
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THE POWER OF THREE

How Technology, Innovation and Data Analytics are Shaping the Future of Insurance



In hindsight, 2022 was a year marked with increased uncertainty and unprecedented challenges. As the global economy was starting to recover and rebound from the effects of the pandemic, the economic fallout from the war in Ukraine dealt a fresh blow to recovery prospects.

The increased geopolitical risks induced by the war weighed adversely on global economic conditions throughout of last year.

The overall global economic environment in 2022 had worsened due to a combination economic forces such as high inflation, tight monetary policies, supply chain disruptions, energy crisis, ongoing concerns from the war in Ukraine and the lingering impact of the pandemic.

Against the backdrop of a fragile economic conditions, the economic outlook for 2023 is turbulent to say the least.

The insurance industry has been known for its resistance to change and conservative approach, which has resulted in the slow adoption of new technologies. However, the global pandemic had shaken the insurance industry out of its slumber and put insurers on the fast-track to technology adoption.

In anticipation of the upcoming economic turbulence and instability amidst the backdrop of an increasingly volatile global economic environment, managing emerging and complex risks demand for effective ways to provide resilience in these uncertain times.

To meet current economic challenges, the insurance industry must turn to innovation, technology and data analytics in order to transition to a more inclusive, resilient and sustainable recovery. The interplay between this power of three will help propel the industry into its next wave of growth.

Advancement of technology and data analytics are revolutionising the insurance industry by providing new ways to gather and analyse data, improving underwriting and pricing, and creating new products and services. Insurers that can effectively leverage these tools will be well positioned to remain competitive in an ever-evolving industry.

One of the key ways that technology and data analytics are impacting the insurance industry is through the use of telematics. Telematics is the practice of collecting and analysing data from vehicles to gain insights into driver behaviour and patterns. This data can be used to create more personalised and accurate insurance policies, as well as to identify potential risks and take steps to mitigate them.

Another important trend is the adoption of predictive modelling. In the insurance industry, predictive modelling can be applied in various areas, such as underwriting, claims management, and fraud detection. In claims management, predictive modelling can aid insurers in detecting potential fraud. By analysing data on claims history and policyholder behaviour; insurers can identify patterns of fraud.

Data analytics can enhance the precision of underwriting decisions by identifying potential outliers and anomalies in the data.

Through predictive modelling, insurers can analyse data on natural disasters and other catastrophic events to predict the likelihood of future events, develop strategies to mitigate their impact as well as determine the appropriate policy premiums.

Data analytics, on the other hand, can enhance underwriting efficiency by automating certain tasks. For example, an insurer may use data analytics to automatically identify and flag potential risks based on specific criteria, such as age or location. With data analytics, the precision of underwriting decisions is enhanced by identifying potential outliers and anomalies in the data. For instance, an insurer may employ data analytics to recognise policyholders who have a pattern of submitting multiple claims, which may signify a greater chance of future claims.

According to McKinsey, insurance companies that utilise advanced data analytics can expect to see their loss ratios improve by 3% to 5%, an increase in business premiums of 10% to 15%, and an improvement in customer retention in profitable segments by 5% to 10%.¹ Research has also shown that the implementation of big data results in 30% better access to insurance services, 40-70% cost savings, and 60% higher fraud detection rates.²

Innovating for competitive advantage with data-driven insights can empower insurers with a resilient business strategy. Innovation, through the application of technologies, can help insurers to identify new revenue streams by creating new products and services or by entering new markets. However, for innovation to deliver sustainable growth, it must be embedded in the company's growth model and fully integrated across the organisation. This is where the challenge lies for many insurance companies, with only a few have pursued innovation in a systemic way.

Undoubtedly, technology, innovation and data analytics are playing a crucial role in shaping the future of the insurance industry. With the growing use of big data, telematics, predictive analytics and other advanced technologies; insurers are now able to gain new insights into customer behaviour and preferences, identify potential risks and take proactive measures to mitigate them.

These technologies are enabling insurers to innovate and create new products and services that are more convenient, while also helping to improve operational efficiency and reduce costs. As the insurance industry continues to evolve, the industry must effectively leverage on the power of three to remain competitive and drive sustainable growth in the future.

¹<https://www.mckinsey.com/industries/financial-services/our-insights/how-data-and-analytics-are-redefining-excellence-in-p-and-c-underwriting>

²<https://www.globalbankingandfinance.com/big-data-for-insurance/>

INSURANCE REDEFINED

How Parametric Insurance is Revolutionising the Industry

Climate events, COVID-19 pandemic and the war in Ukraine have highlighted how volatile our planet is. These events have spurred the need for additional tools and resources to mitigate emerging risks. According to an estimate by Swiss Re, traditional insurance only covered 45% of economic losses from man-made and natural disasters in 2022, pointing out to a large protection gap.¹

As the frequency and severity of climate-related disasters and geopolitical conflicts have risen in recent years, more corporations are now seeking protection against emerging and non-traditional risks such as climate change and business interruptions.

In facing the challenge of adapting to a rapidly changing risk environment, innovative solutions to insurance are needed to close the protection gap and build resilience.

¹<https://www.swissre.com/press-release/Hurricane-Ian-drives-natural-catastrophe-year-to-date-insured-losses-to-USD-115-billion-Swiss-Re-Institute-estimates/2ab3a681-6817-4862-8411-94f4b8385cee>

Emerging as a game changer in the insurance industry, parametric insurance is providing benefits for both large and small companies with its unique characteristics. Although parametric insurance has been around since 1990s, businesses are just beginning to recognise the full potential of parametric insurance. Technological advancement such as blockchain technology, smart contracts and real-time weather data is also driving renewed interest in parametric insurance.

The basic concept of parametric insurance is quite simple: payout is determined by the occurrence of a specific event or set of conditions, rather than the actual financial loss incurred. The event or conditions are defined in advance and the policy pays out a pre-determined amount when certain trigger conditions are met. An example would be a parametric insurance policy that pays out a set amount if a hurricane reaches a certain wind speed. This allows insurers to offer coverage for rare and potentially catastrophic events without having to assess the damage caused by each individual event.

In areas where natural disasters are relatively common and traditional insurance coverage is expensive or difficult to obtain, parametric insurance can be an attractive option for individuals and businesses looking to protect themselves from financial losses. In coastal regions prone to hurricanes, parametric policies that pay out based on wind speed can provide coverage for damage caused by the storm without requiring a detailed assessment of the damage.

In parametric insurance, payout is determined by the occurrence of a specific event or set of conditions, rather than the actual financial loss incurred.

Parametric insurance can also be structured to protect against losses caused by cyber attacks, such as data breaches or cyber downtime. In this case, a parametric policy would pay out a pre-determined amount when a certain number of records are compromised in a data breach or a certain type of malware is being detected on a company's network. This type of coverage is becoming increasingly popular as the frequency and severity of cyber threats continue to rise.

For example, a company that stores sensitive personal data for its customers could purchase a parametric policy that would pay out a certain amount if a data breach were to occur. The company could then use the payout to cover the costs of notifying affected customers, providing credit monitoring services, and other expenses related to the breach. This type of coverage allows companies to mitigate the financial impact of a cyber attack without having to assess the damage caused by each individual incident.

Parametric insurance can be developed to protect farmers and other agricultural producers from weather-related losses caused by drought, frost and extreme temperatures. For instance, a parametric policy could pay out if a certain amount of rainfall is not received during a growing season. In India, a parametric insurance scheme called "Weather-based crop insurance" (WBCIS) was launched to protect farmers from crop losses due to adverse weather conditions. This scheme pays out based on the deviation of actual rainfall from normal rainfall levels.

Another application of parametric insurance is in providing coverage for losses caused by weather-related events, such as temperature variations, precipitation levels, and wind speeds. This is often used as a method of hedging against such risks by companies that have a significant exposure to weather-related risks such as ski resorts or outdoor events.

A ski resort could purchase a parametric policy that would pay out if the temperature falls below a certain threshold during the winter months, as this could negatively impact their business. In like manner, construction companies may utilise parametric insurance to safeguard themselves against losses caused by high winds and heavy precipitation.

With the world facing a number of economic and geopolitical events, supply chain disruption can result in losses for companies, cargo operators and logistic companies, running into the billions of dollars. This is where parametric insurance can play a role. This type of insurance can be used to cover shipment delays by setting specific parameters, such as transit time or arrival date; that trigger a payout if those parameters are not met. Given the

increased in frequency and severity of natural catastrophes, parametric typhoon or hurricane insurances are an increasingly used financial tools to mitigate the enormous impact of tropical cyclones on the supply chain disruptions.

The profile of recent climate events and COVID has highlighted the need for more tools and resources to mitigate risks. As the parametric market starts to mature in the next few years, we will see more available parametric products as well as greater adoption of parametric solutions as part of disaster recovery and aid initiatives.

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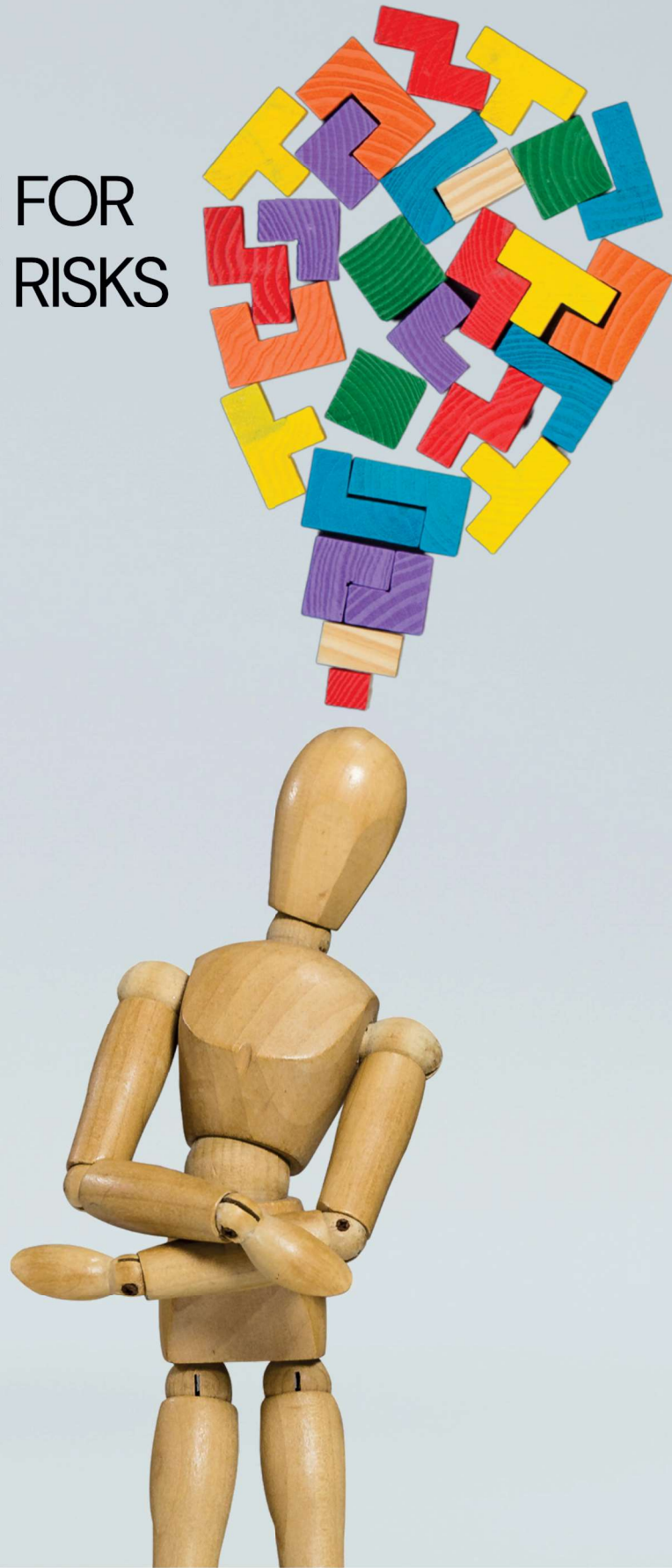
CELL CAPTIVES:

A SMART SOLUTION FOR MANAGING UNIQUE RISKS

A Growing Trend in the Use of Cell Captives to Insure Specific and Non-traditional Risks.

As businesses continue to expand and evolve, they are faced with an increasingly complex and ever-changing risk landscape. From product liability to property damage, currency fluctuations, political and weather risks; companies must find new and innovative ways to manage and mitigate these risks. One trend that has emerged is the growing interest in cell captives, such as segregated cell companies or protected cell companies or PCCs.

PCC is a type of company structure that allows for the segregation of assets and liabilities between different "cells" within the same company. Each cell has its own set of assets, liabilities, and financial results; which are legally separated from the assets and liabilities of the other cells within the company. This means that the assets and liabilities of one cell cannot be used to meet the obligations of another cell, and vice versa.



Cell captives can be utilised in two ways: a parent company can own the entire facility and utilise its separate cells to segregate its risks into different accounts. Alternatively, companies can establish individual cells that are independent of the cell captive's owner. The latter method is popular among smaller companies due to the lower capital requirements for individual cells in comparison to a traditional captive.

The company operating the cell captive is known as the core. This is the central entity that provides the necessary funding for the facility, holds the licenses, handles administrative duties, ensures compliance with regulatory approvals, and manages relationships with regulators and other essential service providers to guarantee that the cells meet the domicile's regulations. This core is typically established by an insurance company, broker, captive manager or agency.

The cell captives structure allows companies to create a customised insurance programme tailored to their specific needs, giving them greater control over their insurance coverage and potentially savings on premiums. This is in addition to providing a useful tool for risk management and financial planning. A study conducted by the Captive Insurance Companies Association found that companies that utilise cell captives experience an average premium savings of 20-30% compared to traditional insurance policies.

One of the main reasons for the growing interest in cell captives is the increased cost of traditional insurance. Cell captives provide a cost-effective alternative to traditional single-parent captives, with lower start-up and operating expenses. By self-insuring certain risks, companies can save money on premiums and retain more control over their insurance programme. They are also quicker to set up, making them a more efficient option for companies and organisations.

The use of cell captives has seen notable growth among small and medium-sized companies. Traditionally, captives was only accessible to large companies with significant resources. However, with the advent of PCCs, smaller companies can now access the benefits of captive insurance without the large capital requirements. A cell captive programme is also a cost-effective and simple way for companies that are new to captives to gain experience and enjoy many of the benefits of retaining risk within a captive structure.



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The formation of cell captives to fund non-traditional, emerging risks have seen an uptick. This include risks such as political risks, terrorism, cyber risks and other new emerging risks. With (re)insurance capacity for cyber shrinking, there is an expectation that more companies will turn to captive insurance solutions; including cell captives to write cyber coverage.

As emerging risks such as those related to climate change and severe weather events become more prevalent and evident, the formation and expansion of captives as well as cell captives, to address these types of emerging risks is increasingly gaining traction due to their flexibility, diversity and the economics they offer.

In today's insurance market, cell captives have become an integral component of the self-insurance market. With the hardening market conditions and an increasingly challenging risk landscape, it's no wonder that more and more companies are turning to cell captives as a risk management tool.

With (re)insurance capacity for cyber shrinking, there is an expectation that more companies will turn to captive insurance solutions, including cell captives, to write cyber coverage.

Harnessing The Power of AI and Big Data

The Application of AI and big Data in the Insurance Industry is a Powerful Tool that can Help Insurers Better Identify, Assess and Manage Risks.



In recent years, the insurance industry has been exploring the use of artificial intelligence (AI) and big data to improve risk assessment and underwriting. These technologies have the potential to revolutionise the way insurers identify and manage risk; leading to more accurate pricing, better underwriting decisions and improved customer experiences.

One of the key benefits of AI and big data is their ability to analyse large amounts of data in real time. This allows insurers to identify patterns and trends that would be impossible to detect using traditional methods. For example, an insurer might use big data to analyse news and social media posts to identify patterns of risky behaviour or emerging risks that would be difficult to detect through traditional underwriting methods.

Another important benefit of AI and big data is their ability to automate many of the time-consuming and labour-intensive tasks associated with risk assessment and underwriting. An AI-powered system can automatically identify and flag applications that contain certain red flags, such as inconsistencies in the applicant's information or a history of claims.

A machine learning model powered by AI can be used to analyse thousands of data points to predict the likelihood of a claim. By applying such model, insurers can more accurately assess risk and adjust pricing accordingly. The same technology can also be applied in identifying patterns in claims data that can help insurers predict which claims are likely to be fraudulent.

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Machine learning algorithms are being applied to analyse large data sets of claims and policy information. This technology aids insurers in identifying patterns and trends that can be used to improve their risk assessment and underwriting processes.

AI and big data can be used to predict natural disasters by analysing vast amounts of data such as weather patterns, historical events, and sensor readings. Machine learning algorithms can be trained to identify patterns and make predictions about the likelihood and severity of a natural disaster. For instance, by analysing data from weather satellites, AI can predict the path and intensity of a hurricane. AI can also forecast the likelihood of an earthquake through the use of seismographs.

A growing number of companies have already adopted AI to automate their underwriting process. This can be done in several ways. The use of natural language processing (NLP) aids in extracting relevant information from unstructured data, such as text documents. Machine learning algorithms, on the other hand, analyse data and make predictions about an applicant's risk profile. All this helps to improve the efficiency and accuracy of the underwriting process, reducing the time and resources required to make a decision.

AI and big data can be used to predict natural disasters by analysing vast amounts of data such as weather patterns, historical events, and sensor readings.

There are, however, challenges associated with the use of AI and big data in the insurance industry. One of the biggest challenges is the need to ensure that the data used by these systems is accurate and reliable. Insurers must also ensure that their systems are compliant with all relevant laws and regulations, including data privacy and data security regulations. Additionally, insurers must have the necessary technical expertise and resources to implement and maintain these systems.

Despite these challenges, the application of AI and big data in the insurance industry is expected to continue to grow in the coming years. As these technologies continue to mature and improve, insurers will be able to use them to gain a more complete understanding of the risks they are facing, and to make more informed decisions about how to manage those risks. This will ultimately lead to more accurate pricing, better underwriting decisions, and improved customer experiences.

