43 zettabytes of data by 2020

Asia Insurance Review's 2nd Asia Conference on Big Data and Analytics for Insurance had the industry showing off exactly how Big Data has enhanced their operations, and explored further methods to leverage analytics.

By Ahmad Zaki

"In the year 2020, the projection for global data is about 43 zettabytes," said Mr Wolfgang Hauner, Chief Data Officer at Munich Re.

Mr Wolfgang Hauner

43 zettabytes – which is 43 followed by 21 zeroes – is an immense amount of information, considering the largest organisations in the world are currently only operating on the petabyte level – 15 zeroes, or one million library floors. Only the biggest technology giants such as Microsoft, Google and Facebook are able to compute data at the zettabyte level, according to Mr Hauner.

Dealing with such large amounts of data requires a technology known as quantum computing, which is still prohibitively expensive. Nonetheless, Mr Hauner predicts that the tech industry will be using quantum computing as an industry standard within the next five years. However, current cyber security methods are unlikely to work with quantum computing, necessitating a complete redesign of online encryption algorithms, known as Post-Quantum Cryptography.

Finding relevant data

However, just because data is abundant does not mean that data is relevant or usable, especially for the insurance industry. "The biggest pain point for companies who have a massive treasure trove of data is the cleaning and housekeeping of that data," said Ms Catherine Candano, Data Analytics Leader at Google Data Platforms. "On a digital front, the ability to pull out intent, and segmentation around the basis for that intent – that works the hardest for you."

Ms Catherine Candano

Ms Na Jia, Head of SCOR Global Distribution Solutions at ReMark Asia Pacific, urged the industry to not just look at the macro level data, but also at attitudinal and behavioural data that consumers churn out on a daily basis. "It serves as a better indicator of risk profiles," she said.

Ms Na Jia

However, she also pointed out that behaviours and attitudes tend to change, based on the environment around the user – recent disasters or tragedies tend to cause a spike in insurance sales, while people who use wearable fitness devices tend to lead healthier lifestyles, for example. The ability for an insurer to capture the data in as close to real-time as possible, while adjusting to accommodate shifts in customer behaviour and analyse that data to predict demand will determine their ability to stay ahead of the pack.

Cover Story – Insurtech: Innovation, Disruption…Distraction?

Closing the engagement gap

Currently, insurers tend to collect and analyse data on their existing customers, helping them convince those customers to make secondary purchases, or extend current coverage, said Ms Na Jia. However, there is a huge group of people who do not own insurance at all, and the challenge is in gathering relevant and actionable data on them.

She called it an 'engagement gap', rather than the more typical 'protection gap', classifying these non-buyers into four basic categories: procrastinators, those who can appreciate the protection insurance offers, but feel no real sense of urgency to buy; strugglers, who believe they cannot afford to pay the premiums; self-reliants, those who believe they have enough financial liquidity to protect themselves; and innocents, those who are not aware, or ill-informed about insurance.

The largest opportunity comes from the procrastinators, as they already have a positive perception of insurance. The trick, she said, was to create a sense of urgency in these people, and move insurance up their priority ladder.

Basic biodata on these groups, such as age, income, marital status, is enough to form a brief picture on them, she said, but developing further insights – down to an individual level, even – requires more detailed data.

Working with the ecosystem


Mr Kunal Thukral

The engagement gap raises another issue with Big Data analytics, as pointed out by Mr Kunal Thukral, Evangelist with the Asia Analytics Alliance. "Analytics users don't know which data is relevant."

According to Mr Thukral, only 0.5% of all collected data is actually being used, leaving an immense reservoir of data that is either irrelevant or underutilised. "Companies have spent tons of money on capturing this data, but they're still stuck on the point of 'what do we do with it'," he said.

Analytics service providers, he said, could overcome the data gap that insurers face. However, these third-party providers are not aware of which data can be used to answer specific pain points of the industry. "They should play a dual role in helping companies identify and procure the right data, and also simplify and consult them on the right use cases."

Awareness, skills and culture of an organisation are the main barriers to the adoption of Big Data analytics in today's business ecosystem. Mr Thukral noted that the success of a business in the modern day is by integrating and cross-pollinating with the ecosystem around it, citing Apple and Uber are examples of such success. Similarly, a business must use Big Data analytics in combination with its existing processes in order to remain competitive.

Other important members of the Big Data ecosystem include regulators, start-ups, accelerators and incubators, all of which has a vital part to play in promoting relevant and accurate utilisation of Big Data analytics.

Shaping the industry with technology


Ms Sophia Van

Technology is changing the risk landscape of the industry, which is prompting insurers to adapt their underwriting capabilities to survive. Ms Sophia Van, Technology Leader for Asia and Growth Markets at Mercer, posited four scenarios for the future landscape of insurance:

- Some risks may change hands; for example, with the rise of autonomous cars, motor insurance may become merged into product liability for car manufacturers.
- New risk pools may emerge.
- Some risks will shrink with the emergence of better mitigation and prevention technology; for example, new biotechnology, medical procedures, and behavioural changes due to wearables are changing the reality of mortality.
- Some risks will become more extreme, such as with cyber risk.

Adapting and keeping up to this changing risk landscape also means that insurers need to look at the data they are collecting. "Insurers will no longer need to rely primarily on historical data, with the assumption that the future will be a repetition of the past," said Ms Van. Now, she said, insurers have access to more data sources that can help them understand actual consumer behaviour and calculate risks in real-time.

Pulling data from different sources


Mr Andrew Martin

Mr Andrew Martin, board member at Asia Online Publishing Group, reinforced this statement, stating that 'Big Data' was not just a large repository of information. With Big Data, he said, "the questions you ask are going to find answers in places you wouldn't have thought to look, because it brings together data sources that have no reason to be connected."

About 140 people attended the 2nd Asia Conference on Big Data and Analytics for Insurance in February. The conference has the theme "Be a Data-Driven Insurer" and was organised by *Asia Insurance Review* and sponsored by ReMark.

Highlights

- Immense amounts of data already exist and will multiply exponentially within a few years;
- The industry is only utilising a fraction of the data, and even then, not all of it is relevant; and
- Collecting and analysing data in real-time is becoming increasingly possible, as technology advances.

There is a huge group of people who do not own insurance at all. They are classified into four basic categories: procrastinators; strugglers; self-reliants and innocents.