

A decentralised approach to inclusive insurance



L-R: Mr David Piesse, Ms Hannah Grant, Mr Picha Siriyodhin, Mr Nopadol Santipakorn, Dr Chayanin Kerdpholngarm, Dr Alexander Raubold and Dr Antonis Malagardis

Inclusive insurance requires a company to have low operational and transaction costs in order to remain sustainable. During the inaugural Inclusive Insurance Conference, held in Bangkok early last month, speakers and panellists discussed how blockchain can improve distribution and business processes, without breaking the bank.

By Ahmad Zaki in Bangkok



“It was about 2013 when I learned about Bitcoin, this magical internet money. I found it very interesting, mostly because it was now possible to transact small amounts of money at very low costs,” said Etherisc inclusive insurance leader Michiel Berende.



He was speaking of the underlying technology behind Bitcoin, blockchain technology, which has significant positive implications for the future of inclusive insurance, given its open source nature and ability to cut down on operational overhead.

While Mr Berende founded his company, Etherisc, in 2015, he spent much of his time explaining to insurers the value behind blockchain technology. Now, as blockchain has been firmly embedded into the ABCD of FinTech, using it to facilitate inclusive insurance efforts is becoming a more possible reality.

Changing the insurance value (block)chain

Blockchain allows for the peer-to-peer transfer of digital assets with no central authority to control

the issuance or transfer of assets. Digital assets, Mr Berende said, are not just digital currencies. “It can be anything that exists in a binary form; anything you can programme can be a digital asset. It could be an insurance policy or a property title. In fact, you could even programme money.”

With smart contracts, the decentralised nature of the blockchain removes the need for an intermediary. It has a great potential to streamline the distribution and take-up rates of parametric insurance, typically agriculture and climate risk cover for smallholder farmers in Asia.

He admitted that the technology is still in its infancy. But where blockchain and inclusive insurance can come together is in the simplicity of inclusive insurance products. “They are easy to manage, they have small premiums and claims amounts. And if you can programme money, say into a currency like Bitcoin or Ethereum, you could explore the way you pay out claims. You can do it with cash, or you could provide a token that can be exchanged, for example, for farming goods,” he said.

This is vital, as the concept of insurance is all about returning a person to the state he was at before

the insured event occurred, which does not necessarily mean the person has to be paid in cash.

However, he also pointed out that in order fully and properly to automate this aspect of the insurance value chain, the insurer cannot rely on the blockchain alone. Instead, it requires a combination of AI, blockchain and the Internet-of-Things (IoT).

The problem with smart contracts

“When you work with smart contracts, you quickly come to realise that they’re not very smart, and without legal backing, they’re not contracts,” said



Mr Benjamin Dean

Iconoclast Tech USA president Benjamin Dean. “A lot of people building smart contracts got very excited two years ago and dove into Ethereum as a solidity programming language used to build smart contracts. But they realised very quickly that were many key components missing.”

Currently, he said, there are a number of start-ups building on top of existing blockchain network in the hopes of disintermediating the industries these networks operate in, which they would like to enter. “The key question to ask, given the industry in question, is who is likely to be cast out of the chain, who is likely to remain and who is likely to enter?”

He believes there will be a number of new entrants in the space around third-party data sources and they will require some technical infrastructure to allow that data to be used in successful and functional smart contracts.

He also brought up the concept of consensus. In the early years of the blockchain and Bitcoin, the people who were trading in these cryptocurrencies – who did not necessarily know each other – came to a consensus over the ‘true state of the ledger of transaction’. “They used a process called ‘proof of work’ and it defaults that the longest blockchain to exist across the network to be the ‘true’ one,” he said.

The issue is that for smart

contracts, because while the ‘proof of work’ consensus mechanism is present, there are a lot of other things that the users need to come to consensus about, in order for the contract actually to work. “Say you have hurricane insurance. There’s a smart contract that has been written up, and people have agreed, acquired their private keys and signed the transaction and if a hurricane occurs the insurer will pay out X amount. But how will the smart contract know that a hurricane has come through?” said Mr Dean.

This is where the concept of ‘oracles’ comes in. It is a term used within the blockchain community, a link between the smart contract and an external data source. “This is what people have been trying to build on top of Ethereum and run into it in a variety of different ways. In essence, what we’re asking is not just ‘what happened’ but ‘how do we know that it really happened’? It is an extraordinarily difficult set of assumptions to meet.”

This, coupled with issues behind data veracity and trust, provided a major stumbling block to the implementation of smart contracts. “The inclination might be to have whole group of centralised data providers that we trust – this might be government regulators, national statistical offices, or private data providers. But the whole blockchain space is built around the ideological element that leads towards a decentralised approach to things. The question is would pose, in the context of insurance, is what kind of decentralised trusted data sources could we create and why would we trust them?”

Disrupting the insurer

There is a less obvious way that blockchain might disrupt the insurance industry, he said. “There is an inherent conflict of interest in an insurance company. There is a strong incentive to not pay out a claim, because they want to make money. In my view, insurers will no longer be responsible for managing risks pools in the future, especially with parametric and index insurance products becoming more prevalent.”

The role of the insurer will change to the licensing, compliance and the actual configuration of insurance

products, he said.

The right technology for the right process

“Our industry and our regulator are looking into blockchain,” said EFU Life Assurance chief strategy officer and executive director Mohammed Ali Ahmed. “We have to identify if blockchain is the right tool to use for a process. We can see how blockchain can help us, in offering products, in bringing together large populations, but there is a checklist we go through before we decide whether to use blockchain or not.”

The checklist:

- Are multiple parties sharing data?
- Will multiple parties be updating data?
- Is there a requirement for verification of data?
- Are intermediaries adding cost and complexity?
- Are the interactions time-sensitive?
- Are transactions by different parties dependent on insurers?

Mobile is the way forward

“Pakistan has the most advanced natural database,” said Mr Ali. “Biometrically, every citizen of Pakistan is available on that database. With that kind of information allows us to design paperless, digital products where the thumbprint is all that is needed to sell insurance. Banking is already using biometrics quite significantly in Pakistan and insurance is gradually moving in that direction.”

With the high rate of mobile penetration and the large biometric database, insurers can tap into the Pakistani penchant for digital payments, and the regulator’s push for electronic insurance documents, to sell insurance wholly on digital platforms. “The premiums are taken from the digital wallet and the insurance contract is issued digitally,” he explained.

All of this is currently a work-in-progress in Pakistan, with Mr Ali expecting it to be implemented within one to two years.▲



Mr Mohammed Ali Ahmed