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Insurtech and Innovation

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Abstract
Fintech/financial technology is a subset of insurtech, which is described as innovative technology used in insurance. Insurtech applications include risk prevention, fraud detection, claims management, and smart contracts. As technology advances, we have more opportunities to provide services and to collect data, which can lead to more effective risk identification and mitigation. While insurtech regulation will primarily focus on internal controls and market conduct, the practical impact of these rules must be closely examined. Consumers and policyholders will be treated fairly through internal controls that ensure that laws and regulations are obeyed. Due to the lack of established insurance distribution networks in emerging markets, technology and innovation may be of greatest importance. The welfare of policyholders should, however, be protected regardless of whether the industry is developed or emerging.

Keywords: Insurtech, funding, technology, data, insurance

Introduction

InsurTech is a subset of FinTech/Financial Technology, which is described as the innovative that used in insurance technology. Risk prevention, fraud detection, claims management, and smart contracts are some of the most important InsurTech applications. There's no exception to this in the insurance industry, where technology is bringing us new ways to provide services as well as greater opportunities to collect data, which can lead to more effective risk identification and mitigation measures. That's what InsurTech means. InsurTech, as compared to FinTech, is more often related to service improvements for individuals, as opposed to businesses.

As a term, Insurtech is used to describe new technologies that could improve insurance industry regulation and innovate the sector. It examines how insurers are engaging with startups entering the market as well as how InsurTech is funded.

Insurtech - Funding

There are many ventures capital (VC) options available in the insurance sector that have an impact on the funding of new technology and innovation in the sector. Many insurance start-ups have successfully completed a number of funding rounds in the United States due to a rich and competitive market for VC funding. If the market doesn't have a strong VC culture, raising capital would require using public sources rather than venture capital. A number of public sources have funded the French start-up, InsPeer has funding from a number of public sources.

Insurtech Technology

Many InsurTech developments are based on wider technological advancements and innovations. In order to establish a common understanding of the nature of some of these technologies, a brief review of them is helpful.

1. **Mobile Technology:** Apps for mobile phones and the network effect have enabled many companies to reach a wider audience than ever before. In mobile technology may work differently for InsurTech depending on the network and handset used. Apps are enabled by smartphones and internet access. Mobile networks that support short messages, pre-paid phones, and large data transfers are required. In emerging markets without a well-established distribution network and low insurance penetration, this is particularly relevant.

2. **Algorithms, Artificial Intelligence, and Robo-Advice:** Algorithms are computer programs that follow a set of steps to accomplish a task. Computer chess games and route navigation systems are examples of well-known algorithms. There is a wide spread of algorithmic trading in the financial sector, such as high frequency trading. A human trader would not be able to place trade orders at the speed and frequency that the algorithm uses.

A machine's intelligence is known as artificial intelligence. Intelligent machines take into account their environment and take action to maximize the possibility of achieving their goals. Cognitive functions such as problem solving and learning are commonly built into computer programs. There is a lot of AI research going on in fields such as reasoning, knowledge, planning, learning, natural language processing, perception, and moving/manipulating objects.

Increasingly, online investment and savings platforms offer robo-advice, or automated advice. In essence, it is an online automated advice model capable of delivering advice in a more cost-effective; manner. Increasingly, insurance companies are using robo-advice for quotes with automated advice and offerings calculated through algorithms. In addition to or instead of face-to-face advice, robo-advice can provide automated guidance and execution. In areas that lack access to financial advice, automated advice could help provide input more cost-effectively than a human advisor. The algorithm could, however, inadvertently provide inappropriate advice depending on how it is structured.

3. **Smart contracts:** Automated or self-executing contracts are known as smart contracts. Programming code is used instead of legal language on printed

documents in order to allow computers or networks of computers to run them. Codes such as these can establish strict rules and consequences that mimic traditional legal documents by stating obligations, benefits, and penalties under various circumstances.

Trading and doing business with strangers can be done through smart contracts without requiring the involvement of a centralised authority or site. In smart contracts, a program may not know what is happening in the physical world or react to unforeseen events, so the contract cannot be executed. In addition to blockchains, smart contracts can often be run on distributed ledger technology (DLT). Bitcoin is a cryptocurrency that uses DLT as a smart contract.

4. **Blockchain/distributed ledgers technology (DLT):** Blockchains and smart contracts are common on Ethereum.The blockchain or distributed ledger technology (DLT) is a protocol for exchanging values or data over the internet without intermediaries. By using blockchain technology, transactions and other information can be shared, encrypted, and securely stored. We have given examples of ants and flocks of geese to illustrate how a decentralised yet coordinated blockchain society would look like. An ever-lengthening data chain is established through the technology. A blockchain's premise is that the information in the blocks is true. Transactions are recorded in blocks and are validated by participants. Transactions are irreversible once they are validated and recorded. The original meaning of the term blockchain was the database containing all Bitcoin transactions.

5. **Data protection and privacy issues:** There is a lot of complexity, opaqueness, and often interpretability associated with big data technology. The impact and appropriate use of big data may not be fully understood by those who develop the technology for utilizing big data. As far as possible, firms should demonstrate that their use of data is appropriate and bias-free. Insurers should thoroughly review privacy and data protection regulations when using big data and data analytics. There will be a great deal of impact on how this is dealt with as a result of the wider data protection regime. Also, insurers will need to ensure their databases have the capacity to support notification requirements for data breaches. A notification requirement, however, may also be helpful in developing standalone cyber insurance markets. A data exporter must either implement a lawful data transfer mechanism or make cross-border data transfers to an Adequate Jurisdiction under the current EU regime. For transfer of data within the corporate group, GDPR requires corporate to have Binding Corporate Rules (BCRs) that are legally binding and apply to and be enforced by every member of the group of undertakings envisaged in joint economic activity, and have DPA approval of the BCR.

Data control and data processing agreements must be entered into with caution in the EU, in terms of outsourcing arrangements and distribution agreements.
As a result of GDPR, insurers (data controllers) will be required to conduct a data protection impact assessment before processing personal data, which is in contrast to the current EU directive requiring the processing of personal data to be justified. Data collection, handling, and processing by insurers must be conducted in accordance with adequate consents and effective protocols.

Conclusion
Technology is being used by InsurTech businesses to simplify the contracting process and tailor policies to better suit policyholders' needs in order to better address the insurability of policyholders. As a result of the sharing economy and the large millennial cohort, the insurance industry can also adapt to wider changes in economic activity. The social and environmental considerations that are incorporated into many InsurTech business models are also striking. Several InsurTechs strive to improve the transparency of contracting and claims management. Insurance companies may benefit from fraud detection by getting a clearer picture of where their premiums go.
Additionally, it is becoming increasingly clear that the fine print of insurance quotes is tedious to read, without revealing much about the coverage of the policy. It is being developed sites that simplify information about policy coverage and clarify premium levels, while also introducing peer pressure to mitigate risk. A risk assessment is usually conducted using an algorithm that uses a few questions and may also use external data sources.
Particularly among (re)insurers, the scale of InsurTech investment is increasing. Insurers will likely want to own a stake in InsurTechs once they attract a large number of users and policyholders, and provide an improved customer experience. For this purpose, a number of (re)insurers have established strategic venture capital arms, and have been making strategic investments in a variety of startups. Several countries are establishing regulatory platforms for the entry of innovative technologies, such as regulatory sandboxes, which will encourage start-ups to develop their business model while becoming accustomed to regulatory requirements. Startups may choose markets with ready platfors for launching their businesses.
Generally, these technologies can provide better and more customized insurance coverage to more people, including those with lower incomes, and provide greater financial security. In addition, the new distribution models can simplify the insurance process, as well as provide insurance in less developed markets. However as they try to scale their businesses, InsurTech will need to meet insurance regulations and wider data security and privacy requirements. As start-ups and regulators scale up, ensuring customer satisfaction and safety standards remain a challenge.
It is possible to understand the impact of new technologies and innovations on the market through innovation hubs and regulatory sandboxes. To balance the need for innovation and adequate protection for policyholders, however, greater clarity on the appropriate level of regulation in such platforms is needed.
InsurTech regulation will focus primarily on market conduct and internal controls, and while these rules are neutral to technologies, their practical impact requires closer examination. This will be achieved through internal controls that ensure that laws and regulations are obeyed and that consumers and policyholders are treated fairly.
In terms of how regulators could evaluate the use of big data and algorithms, there is uncertainty. Complexity affects both

how regulators organize themselves and how the spirit of regulation is implemented. As far as possible, firms should demonstrate that their data use is appropriate and free of bias. There is a possibility that RegTech can assist in the implementation of this going forward.

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