Data as a driver of inclusion in insurance

Digital transformation can contribute to closing certain protection gaps

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Insurance is founded on risk pooling.

The individual impact of unforeseen events can be extreme – the catastrophic destruction of property, livelihood, health, and wellbeing. However, by sharing exposure we can reduce this individual impact. Indeed, insurance is rooted in this pooling – a mutualisation of risk. This increases societal, household, and personal resilience.

In private insurance, the premium paid by customers is normally linked to individual risk. Customers with higher risks typically pay higher premiums. At the same time, there is also the mutualisation of risk within the pool of insured customers, where the premiums of policyholders who do not make claims are used to contribute towards paying for the claims of customers with higher underwriting risk, where it is necessary to manage the risks within the pool.

New and big data – and the application of artificial intelligence (AI) to it – transforms the picture: more data and increasingly sophisticated ways of deriving insights from it, allow for more concrete identification and monitoring of risks and their relevance for specific individuals or households. It allows for more specific insights into individual behaviours and sensitivities.

In insurance regulation at the EU level, there is no definition of a necessary level of mutualisation. While Solvency II ensures prudentially sound reserving against risks, it does not prescribe how far risks need to be shared. On the other hand, while product oversight and governance requirements require pricing and product design that is fair for a defined target market, this does not set the size of that market.

However, there are limits. The EU Charter of fundamental rights sets out a general prohibition on discrimination related to "sex, race, colour, ethnic or social origin, genetic features, language, religion or belief, political or other opinion, members of a national minority, property, birth, disability, age, or sexual orientation''. Even so, disability or age is allowed as data for underwriting certain lines of business.

These fundamental rights concepts are reflected in both the AI Act and in the General Data Protection Regulation (GDPR), although the AI Act also allows for personal data to be collected to track discrimination to ensure fair consumer outcomes.

It is useful to look at this both from an exclusion and an inclusion perspective.

First, financial exclusion

Increased access to personal data and new techniques for deriving insights can lead to financial exclusion through risk-based pricing and underwriting techniques and through impacts on the quality of cover. This means that those carrying higher risks may face increased premiums or may be refused a product or excluded from a contract.

This can also be due to optimisation of pricing techniques, or differential pricing, which are not risk-based while very complex for consumers to assess. For example, they may be based on increased insights into individual price sensitivity, which may be detrimental outcomes for certain groups of consumers.

In short, some products get too expensive for some consumers, or too complex with hidden or difficult-to-assess exclusions.

Second, financial inclusion

Better data – more data and improved data quality – and more accurate, more predictive insights can be positive in enabling the sector to better fulfil its potential as a societal risk manager.

Accuracy is a foundational principle here. Knowing the risks you carry, whether from the investments or the liability side, can help drive efficiency and reduce prudential risk, and so drive up resilience.

At the same time, there should be no automatic presumption that being more accurate on risks equals increased financial exclusion through pricing and product design. Fair treatment of customers should still drive pricing and product design, and mutualisation of risk is intrinsic to this fairness.

This can even be the case where risk pools are shrinking and thereby threaten to reduce the possible levels of mutualisation of risk, in areas not touched on by the limits related to fundamental rights mentioned above. For instance, through the development of a more proactive role for insurance, that encourages the reduction of risk at source for collective benefit, the price of insurance can be driven down.

This risk reduction can also be a way of improving financial inclusion by allowing the uninsurable to become insurable. Telematics can do this for some drivers. Other examples from the Internet of Things include smart watches and flood sensors for health insurance or home insurance.

These examples show how digital transformation contributes to closing certain protection gaps. The impact can be greater though – it can help increase market transparency – including the development of tools for insurers, distributors, and customers to aid them in comparing products and coverage and assessing needs and the appropriate price of cover – breaking down barriers for consumers in understanding and assessing insurance.

To summarise, recognition and respect for fundamental rights set boundaries on the use of data. However, within those boundaries, more focus needs to be put on digital ethics. Increased access to data and enhanced analytics can arm the insurer – and their supervisor – against financial exclusion and help support financial inclusion – two opposed ways that failings in digital ethics can impact consumers.

While insurers have access to sensitive personal data and need this to identify and reserve against all risks so they can build sustainable business models for the future, they will need to demonstrate they can be trusted with that data – that they know the impacts for financial inclusion and exclusion, and that this data is used to deliver better outcomes, individually and collectively.

This is ultimately to recognise that there is no time for complacency. We need to do much more to measure, identify and act on financial inclusion and exclusion.

Ensuring the fair treatment of consumers is at the heart of EIOPA's mandate and this means making sure that insurers treat customer data with care. In this way, we can foster financial inclusion without losing the core principle of insurance: to mutualise risk to protect society.