



Helping insurers compete in the age of disruption

Global Data & Analytics

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Introduction

Insurance has always been about risk transfer driven by data and analytics. Insurers were conducting in-depth analyses long before computers or big data. And, much to the same degree, insurance has also always been about trust, risk mitigation and protection. But over the past decade, the relationship between data, analytics and trust has changed, posing significant opportunities and challenges for the incumbents in the insurance sector.

The rise of smart, connected devices, the internet of things (IoT), well-funded InsurTech start-ups and sophisticated data and analytics is disrupting the industry. The flood of new data is allowing insurers to track how insured 'things' move through the risk universe.

With this trove of fresh information, insurers now have a sizable opportunity to deliver new benefits to their customers and to society as a whole. In fact, prevention over protection is quickly becoming the new norm. It is quite clear that analytics will be a mainstay for many of the decisions that insurers make in the future and as this trend continues, more focus will need to be placed on ethical questions and the power of trusted analytics.



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Building a new level of customer trust

In the past, it was clear what being a trusted partner meant for insurers. It meant honoring their commitment to pay, treating customers fairly and providing wider support after a major insurable event. Today, the relationship between insurers and their customers is fundamentally changing as both partners begin to gain more insight — and more power and uncertainty — through their ownership of rich data, which is granular, personal and streamed in real time. This data, plus the analytics that use it, are driving a complete rethink of the underlying drivers of trust that underpin this relationship.

The IoT and InsurTech companies are the major market disruptors. Like the booming FinTech sector in banking, InsurTechs play to the growing desire of consumers to

conduct their business with very little direct human contact, and take advantage of the evidence that these emerging robo-relationships and the analytics behind them are becoming more trusted than the human equivalent. This shift is triggering valuable new opportunities for the industry to build stronger relationships with its customers and drive operational efficiencies.

But reality is likely to be more complex for insurance. The industry is facing some particularly challenging questions of trust created by data and analytics, beyond the well-recognized data security and privacy issues. This is a clarion call for insurers to reconsider the way they view and manage trust. We outline some of these trust issues below.

From macro to micro

The insurance industry is beginning to 'think small' — micro-targeting micro-insurance to micro-customers for micro-timescales. The growing trove of data is enabling insurers to get a much more granular view of customer risk profiles. Some insurers are able to get visibility down to segments of one (which, in itself, could raise questions about the future of risk pooling). It also allows insurers to become much more focused on adding value to their customers by generating a deeper understanding of the individual customer's needs, preferences and life choices to deliver more personalized services.

The distinction between Personal Lines and Commercial Lines is blurring in light of the sharing economy trend, illustrated by

companies such as Uber and AirBnB. For example, an insured person can spend her morning driving alone on personal errands and then spend her afternoon transporting passengers in her vehicle on her shift as an Uber driver.

With the evolution to predominantly algorithm-driven models, InsurTech companies such as Trov and Slice are moving customers rapidly towards micro-insurance models, in which a provider insures by the moment. Customers are increasingly trusting the digital value exchange, which means they're more comfortable giving up personal data to gain something of perceived value, such as lower premiums or deductibles.

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On the other hand, more data on both sides could lead to an 'arms race' between sophisticated insurers and customers as each tries to use data to play a system to their advantage, leaving non-players out of any potential gains.

So, while the IoT creates multiple possibilities for the insurance industry, customers must have the confidence that the data they provide will be used in their best interest and will not be used to

discriminate against them or to price them out of the market. When in-car monitoring devices were introduced in the auto insurance sector to monitor safe driving habits, many young drivers rejected the technology outright on the basis that their individual driving habits would influence their rates; similar concerns could emerge if health insurers start to collect data from medical devices. Looking at the burgeoning IoT, concerns around customer trust could emerge in new and previously uninsured areas.

Prevention

The myriad sensors inhabiting the IoT and their corresponding analytics have allowed insurers to move toward the detection of risk events which, in some cases, enable the prevention of, rather than protection from, damage and loss. Prevention-based business models put customers in a new role — as data partners willing to provide richer data, which can generate more value through reduced loss and lower risk.

Yet, as insurers gain greater access to information

and customer data, new concerns and complexities arise. If insurers are able to accurately predict risk, what responsibility might they have to take action to reduce that risk? When there are others in the ecosystem (consider, for example, the complex web of players involved in operating an autonomous vehicle) who is responsible for any action? And how will insurers bridge the gap between legal responsibilities and ethical expectations?

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Transparency

In many industries, these types of questions would inspire calls for greater transparency: show the customer how it works, and allow them to make informed decisions. For example, a UK-based InsurTech start-up is looking to drive transparency into the insurance relationship by providing a customer experience based on shared data insight.

But the insurance industry is traditionally anchored in information asymmetry; insurers are profitable partly because they are better able to price risk than individuals. Provide transparency and that advantage disappears. In some cases, insurers may decide that they do not want access to certain information in order to avoid potential liability or ethical issues. However, this will require executives to carefully

consider the trade-offs that must be made as they move from a traditionally reactive role to a more proactive and preventative role.

Increased transparency provides an obvious benefit to consumers. A clearer view to the risk equation could give them an opportunity to negotiate into which risk pool they’re placed. In fact, savvy consumers or advocacy groups may seek out and identify only those brands that offer transparency to the decision-making process around risk, which they would likely consider fairer. This could mean a significant shift in power between the insurer and consumer, which suggests that insurers should ready themselves to offer greater clarity around pricing.

Ecosystems

It is also unclear how best to build trust in data and analytics given the complexity of the insurance ecosystem. The notion of trust in the InsurTech world is complicated. For example, even though InsurTech companies have algorithms as a core component of their services, they rely on incumbent insurers for funding, capacity and access to customers.

New entrants are co-mingling with incumbents in an ecosystem that has yet to define which players own the customer data. The InsurTech player owns the intellectual property around the algorithm, while the incumbent may own the historical customer, IoT and mobile device data. It is not yet clear who will manage this data for its full lifecycle, from its insurance product development to a customer claim.

Developing and managing trust in the algorithms

By embracing advanced analytics and black box algorithms, insurers have the ability to hand over many of their business decisions to machines. Machine learning and cognitive computing are being harnessed to perform more complex yet routine tasks and, increasingly, to manage some underwriting capabilities and claims processing. Many insurers are already applying predictive and prescriptive analytics to optimize operations, reduce losses and manage risk.

While these uses of data and analytics certainly can deliver significant benefits, they also require the organization, from executives down to the call center agents, to trust that the algorithms (and the insights they deliver) can truly help reduce costs, improve efficiency and make better risk-based decisions.

On the flip side, employees may be worried that new predictive analytics tools and InsurTechs will make their specialized skills redundant. They may be skeptical that a robo-advisor-based InsurTech can provide advice and make decisions as well as trained professionals. Executives and managers often view the introduction of outside data as having a diluting effect on their proprietary risk profiles and claims data.

Establishing the proper controls and methodologies to manage trust in the algorithms will also require executives and analytics leaders

to think carefully about how they develop and manage their analytics across the organization.

There is also a need to embrace and learn valuable lessons about the long-term management of trusted analytics from the InsurTechs. Fundamentally, it may not be possible to understand exactly why a model based on machine learning made a given decision, which could create concerns for regulators. For example, some InsurTechs use historical data to train a machine to make decisions in claims processing based on long-term patterns and thereby embed historic ethical precepts automatically. As the ethical environment changes, these precepts may suffer from a lag, which ultimately could erode the customer's and the regulator's trust in the insurer unless it periodically tests and reviews the ethical framework embedded in its analytics.

While the wider integration and application of data and analytics in the insurance sector is already prompting provocative questions, it will take some time for insurers to understand the full impact of InsurTechs and data analytics on trust with both internal and external stakeholders.

What is already clear, however, is that incumbent insurers must start rethinking the relationship between InsurTech, customers, their customers' data and trusted analytics as they hasten to embrace new business models.

Getting down to the practicalities

Issues of trust in data and analytics already have the power to create and destroy value, but it is an immature field which still lacks a comprehensive framework for practical action. As we proposed in the series' first article, *The Power of Trust in Analytics*, assuring trusted analytics across an enterprise can be addressed with four key dimensions, or anchors of trust: quality, effectiveness, integrity, and operational control.

In order to benefit from the changing trust relationship and the rise of InsurTechs, insurers should consider the following at a minimum:

1. Consider where it may be better to collect new customer data gradually over time and evolve the relationship. Customer confidence and trust are earned and established in stages, which increases the likelihood that customers
2. Introduce a data usage transparency policy that is clearly worded so that customers can understand how their data will be used.
3. Move toward greater transparency in pricing, underwriting and claims interactions with customers. In the long term, this is likely to build customer trust in the analysis of their data.
4. Understand that the border between Personal Lines and Commercial Lines is blurring, and start to evolve products and services accordingly.
5. Consider developing application programming interfaces (APIs) for back-office functions. This will aid in stronger relationships with InsurTechs, ease integration challenges and improve trust with customers.

will provide factually correct personal data.



About Global Data & Analytics at KPMG

In a global environment defined by constant disruption, business leaders need data and analytics they can trust to inform their most important decisions. KPMG Data & Analytics (D&A) has earned that trust with an evidence-based, business-first approach that's at our core. For more than 100 years, we have worked across industries to help our member firms' clients address their long-term, strategic objectives. And as an internationally regulated accounting and professional services firm, our member firms have an unwavering commitment to precision and quality in everything we do.

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