

Research Insights

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Solving the customer relevance riddle

How AI-derived insights can help insurers deliver what customers really want

IBM Institute for
Business Value



Talking points

The shift to relevance through data

With non-insurers encroaching on the insurance value space, the main focus of carriers going forward has to be customer relevance—and data is the foundation of relevance.

Acquiring the cognitive mindset

Data leaders are companies that excel at acquiring and harvesting data for insights. They become leaders by using people, processes and technology to support optimal data usage across the entire enterprise.

Recommendations for relevance

Redefine your organization: Shift from reactive risk adjuster to proactive life companion for your customers. Embrace the self-disruption that comes with becoming a Cognitive Insurer: Accept change and think like a startup.

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The big squeeze

Across most industries, the convergence of technologies has led to a feedback loop of change in both buyer and seller behavior. On the demand side, connectivity of people and things is becoming expected, and *access* is becoming more important than actual *ownership*.¹ On the supply side, value chains are fragmenting and reconstructing at the ecosystem level, with platform orchestrators creating new low-friction offerings that extend beyond products and provide for underlying user needs such as mobility, security or health.

The insurance industry has long considered itself immune to the effects of these changes. It has felt protected by strong barriers to outside competition: strict industry regulation, the scale necessary to create a risk portfolio based on the law of large numbers, the time necessary to establish a trust relationship with customers and, last but not least, customer inertia.²

However, our research indicates insurance executives recognize these barriers are breaking down. In our latest C-suite survey of more than 12,000 global business leaders, insurance executives identified changing market forces as the top driver affecting their enterprise; regulation, which has previously been used as an excuse for the industry's slow pace of change and lack of innovation, was not even among the top three.³

In these shifting insurance markets, non-traditional players are increasingly setting the tone and encroaching on insurance territory with new business models, blurring traditional industry boundaries:

Insurtechs are taking advantage of inefficiencies within traditional insurance, using innovative technological solutions to cherry pick lucrative parts of the value chain. For example, California-based Roost Home Telematics is capitalizing on the increasing consumer interest in smart home technology, using smart sensors such as smoke and water detectors to mitigate damages and facilitate claims.⁴



84%

of insurance organizations implementing or planning AI engagements cite improved customer satisfaction as a primary objective.



76%

of outperforming insurance organizations are leveraging advanced analytics solutions, compared to just 36% of other organizations surveyed.



35%

of outperforming insurance organizations are at the pilot stage or beyond in implementing AI, compared to just 14% of other organizations.

Adjacent businesses such as auto makers are moving onto the insurance industry's turf. For example, Daimler's car-sharing service car2go eliminates the need to buy both car and accompanying insurance policy by simply including insurance as part of the car package price.⁵ Initially offering tiny, two-seat cars, the company has expanded its fleet to include Mercedes-Benz luxury CLA and GLA sedans, catering to higher-end audiences and drivers who require more space.⁶ Volkswagen partnered with car-sharing company Zipcar to achieve a similar outcome.⁷

Digital giants are also entering the insurance marketplace. Amazon, for example, is reportedly recruiting insurance talent and could quickly become a source of disruption for insurers.⁸ It might look to China-based Tencent's WeChat Pay for inspiration. Initially a messaging app, WeChat has become a lifestyle platform with numerous features, including WeChat Pay for digital payments.⁹ After growing its customer base by 20 percent, from 800 million in second quarter of 2016 to 960 million in second quarter of 2017, WeChat Pay has recently entered the North American market, where it could quickly become a threat to incumbents such as PayPal.¹⁰

Ultimately, many customers still want risk management and coverage in their daily lives to protect them from financial harm. However, this protection does not have to be through a traditional insurer, especially if interest in asset ownership wanes while demand for asset access grows. To stay relevant to customers and avoid being squeezed out, insurers need to reframe their value propositions and redefine their roles in the changing market. By shifting from reactive risk underwriting to proactive risk prevention, insurance providers can help create better outcomes for their customers and themselves (see Figure 1).

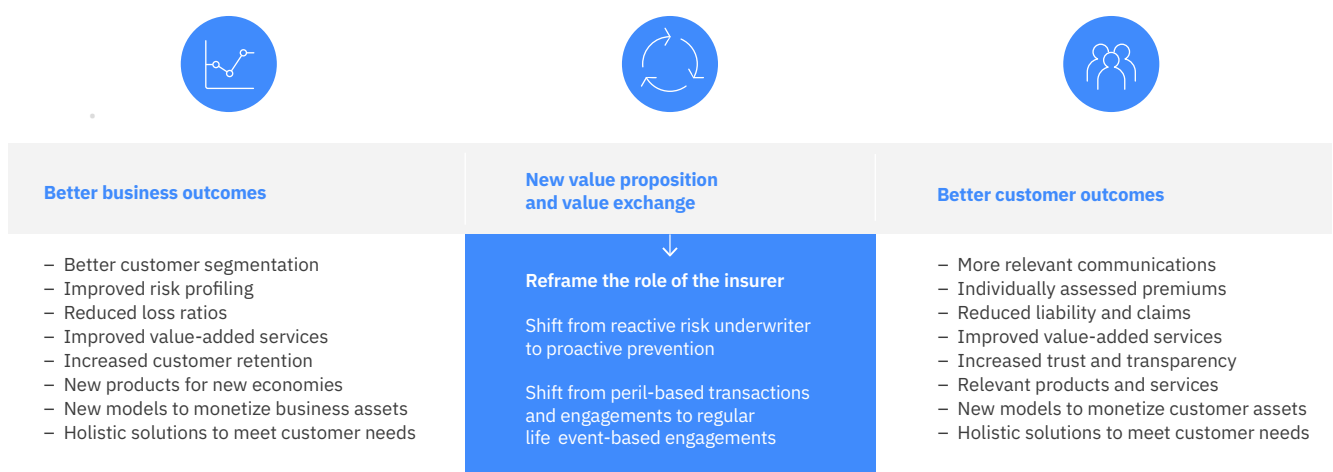
Beyond inertia

For all the tens of billions of dollars spent in market research, many executives demonstrate a surprising disconnect in recognizing customer sentiment.¹¹ For example, for a recent IBM Institute for Business Value (IBV) study, "The experience revolution: Digital disappointment—why some customers aren't fans," we asked both business executives and consumers which factors drive customers' willingness to try new digital customer experience initiatives. For consumers, efficiency, effectiveness and convenience

Insurance organizations feel the impact of changing market forces, as non-traditional players blur traditional industry boundaries.

Figure 1

To stay relevant, insurers need to reframe their roles



Source: IBM Institute for Business Value analysis.

were among the top priorities. Although executives did rank convenience as a top factor, they also cited self-service and greater control, which were among the least important factors for consumers.¹² To put it simply: Customers want companies to offer digital experiences that quickly and conveniently provide the results they seek.

Insurance customers have told us they are not satisfied with the relationship with their insurer. In our report “Data: Gold or kryptonite,” we revealed that only 56 percent of consumers surveyed were satisfied with the personal attention from their insurance provider, and only 56 percent trusted their provider.¹³

But this should not exactly be news for insurers. In IBV studies as far back as 2007, a majority of insurance consumers surveyed have consistently expressed distrust in the insurance industry in general. For many insurers, this did not seem to be a major concern, perhaps because they were confident that customer inertia would prevent meaningful defection.

Yet customer inertia cannot replace customer relevance. The burgeoning success of non-traditional players is largely a result of their relevance to customers in another market and now, by extension, in insurance. Digital giants,

for example, are already adept at bringing efficiency, effectiveness and convenience to the customer experience. Because of this, consumers may give them the benefit of the doubt if they do start offering insurance or other risk services on a wider scale.

Additionally, many markets are shifting, moving from collections of disconnected products to ecosystems of interconnected offerings. Players with higher customer relevance are likely to gain a lead as the face to the customer in these ecosystems. The Hive brand of smart home components provided by British Gas, for example, allows the company powerful relevance in the home and property arenas. This includes mitigating and preventing risks, which leaves less space in the ecosystem for insurers.¹⁴ A company like British Gas could offer residual risk coverage in what would ultimately be a substitutable white label space.

In many areas, such as health and automobile or home ownership, insurance coverage is required. But if technology could help measure, mitigate and prevent risk, this requirement might become obsolete. Who should buy auto insurance if a vehicle is autonomous and shared? To survive, insurers need to find ways to be relevant to customers—and our findings show the key to relevance is data.

“Our data platform has made it easier for us to understand customer preferences, allowing us to modify products for better customer satisfaction.”

Head of Innovation, Czech insurer

Fundamentally, insurance has always been a data-driven business, whether it is risk pricing or loss outcomes that fuel actuarial decisions. Yet many insurers still view decision making as an art based on experience and intuition instead of a hard science based on data.¹⁵ Using data to increase customer relevance spans all parts of the insurance value chain. Improved data availability and data management can augment decision making, helping improve outcomes for customers and the business, thus increasing relevance.

High-performing insurers that recognize the power of data are beginning to implement approaches to harness it, according to results from our 2018 Data and AI survey. (For more on the research, please see the *Study approach and methodology* section.) We identified outperforming organizations as those with above average outcomes in premium growth and organizational efficiency. And we discovered that 56 percent of outperforming insurers have next-best-action triggers in place so they can react in real time to customer activities, compared to only 22 percent of all other insurers.

For example, UK-based Standard Life is leveraging customer and predictive analytics to identify customers with a high propensity to switch providers and to determine next-best actions to improve satisfaction. Armed with these insights, customer consultants are able to engage in relevant interactions and offer tailored services, helping increase satisfaction and decrease churn.¹⁶

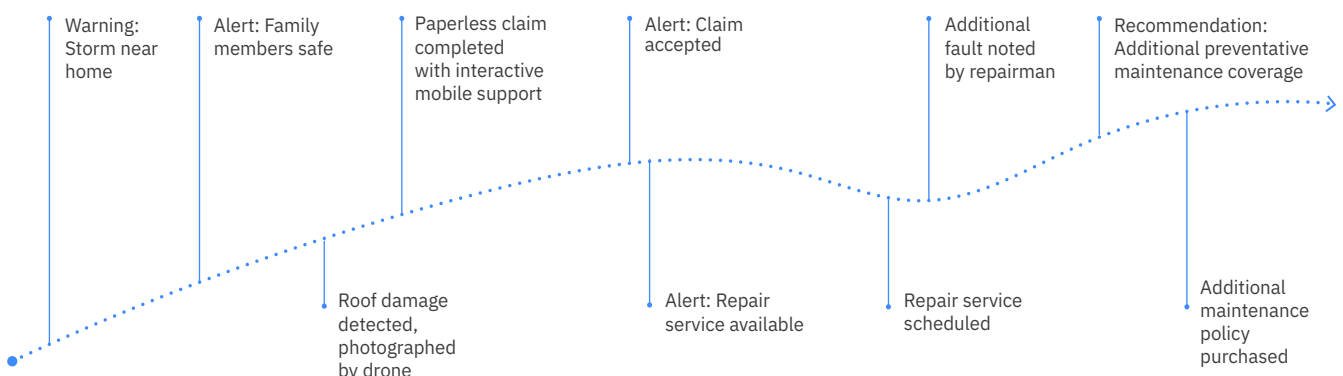
To grow in relevance, insurers need to shift from “react and pay” mode to a “predict and prevent” approach. Supporting this, data can be used at each step of the customer journey. For example, a solution integrating weather, drone and sensor data with information collected by human experts could trigger safety alerts in a home. Data insights could also be used in generating value-added services such as a maintenance policy (see Figure 2).

Currently, insurers primarily view data in a more internal and traditional manner, with 79 percent widely using data-based solutions for performance management and 29 percent for real-time reporting and dashboarding. However, outperforming insurers are starting to leverage

Figure 2

Insurers need to utilize data and technologies to add relevance to the customer journey

Customer journey



Underlying capabilities

- Mobile alerts and risk management
- Electronic claims capture
- Cognitive claims processing
- Proactive claim and service alerts
- Virtual assistant and real-time chat
- Proactive product recommendations

Enabling technologies

- Streaming analytics
- AI: Visual recognition
- AI: Natural language processing
- Internet of Things
- Robotic process automation
- Blockchain

Source: IBM Institute for Business Value analysis.

data in more dynamic ways: 76 percent utilize advanced analytics in general and 52 percent employ predictive analytics. Among non-outperformers, only 36 percent leverage advanced analytics and 39 percent use predictive analytics.

In addition, 31 percent of outperformers apply image analytics solutions, and 27 percent use sentiment analysis. As these are both emerging fields, it's not surprising that the percentages are still relatively small. However, in both cases, they are roughly double the percentages for non-outperformers.

Mind over data

There are three types of data for insurers to consider holistically. In auto insurance, for example, *people data* includes driver or passenger information; *asset data* relates to the vehicle's origin, history and usage; and *context data* includes factors such as weather, traffic and other events that could affect the people and/or the asset. In a health and life insurance environment, people data is still related to the insured person, but the asset in this case would be the intangible concept of the person's health, whereas context data would also include information about doctors, gyms and other related data.

In the past, insurers primarily relied on internal structured data that they owned. But given the complexity of today's customer journey and the breadth of data involved, owning all data is not feasible nor strictly necessary. In fact, integrating heterogeneous sources of owned, shared and purchased data to provide meaningful insights and offerings might become a competitive advantage in and of itself. However, successful data utilization requires the right mindset, which includes establishing effective data governance, defining organizational behaviors and prioritizing the necessary capabilities (see Figure 3).

Figure 3

Successfully using data requires the right mindset

Top traits of data leaders



Source: IBM Institute for Business Value Data and AI Survey, 2018.

There is a small but meaningful relationship between being a data leader—having a data mindset—and performance. In addition to identifying outperformers, we also grouped insurers by data performance based on cluster analysis of their answers to a set of data-related questions. We identified data leaders (above average or high data performance), data laggards (low data performance) and others. We found that outperformers are more likely to be data leaders than average performers (65 percent versus 58 percent), and they are much less likely to be data laggards (8 percent versus 26 percent). Going forward, we expect that gap to widen even more, as an increasing number of carriers embrace artificial intelligence (AI) and other emerging technologies to better leverage the power of data.

“We are looking to implement AI in customer service for better advice and in marketing to promote our services better and smarter.”

Chief Marketing Officer, large Japanese insurer

The Cognitive Insurer

Much of the data around people, assets and context is unstructured, be it freeform text, images and audio or other content. As the sum of all data created, captured or replicated—what IDC calls the Global Datasphere—grows exponentially, the share of unstructured data is also increasing. IDC predicts the Datasphere will increase to 175 zettabytes by 2025, more than five times its size in 2018.¹⁷ For a sense of magnitude, consider that if this data were HD video, it would take a viewer 6.3 billion years—almost half the lifetime of the universe—to see it all, and if it were non-HD video, it would take almost 38 billion years.¹⁸

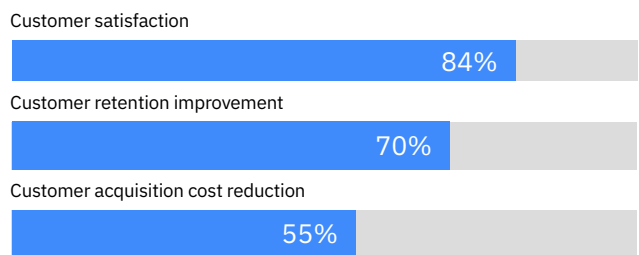
To effectively use data on this scale, insurers need to become what we call a Cognitive Insurer. Cognitive Insurers embrace the latest technologies, most notably AI, to make sense of the abundance of unstructured data. For example, for claims processing, a Cognitive Insurer might use visual recognition technology to aid claims adjusters in recognizing, estimating and compensating damages. In product development and underwriting, AI systems can support actuaries and underwriters in recognizing new and changed risk in context, increasing the accuracy of pricing and creation of new products and services.

The vast majority of insurers we surveyed that are engaging in or contemplating cognitive activities are looking to drive the top line with improved customer satisfaction, retention and ease of acquisition (see Figure 4). As we’ve shown in several previous IBV studies, these factors, with the addition of customer trust, are heavily correlated, so the incorporation of AI capabilities could create a positive feedback loop to more customer relevance.

Figure 4

Cognitive Insurers focus on the top line

Top three value drivers of AI

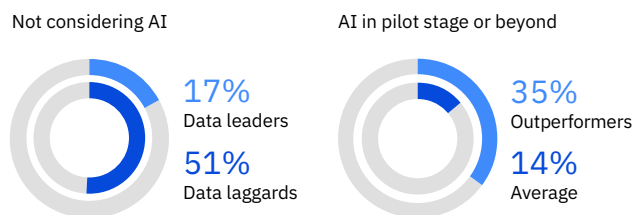


Source: IBM Institute for Business Value Data and AI Survey, 2018.

Insurers on the path to becoming a Cognitive Insurer also tend to embrace a data mindset. While 51 percent of data laggards state they are not even considering AI adoption, only 17 percent of data leaders say the same. We see a similar effect when we look at outperformers: 35 percent of outperforming insurers are at least piloting AI solutions, compared to only 14 percent of all other insurers (see Figure 5).

Figure 5

Data leaders are on the path to becoming Cognitive Insurers



Source: IBM Institute for Business Value Data and AI Survey, 2018.

Besides top-line improvement and obvious efficiency gains in automating analytical tasks, becoming a Cognitive Insurer can lead to many other benefits:

- *Skill augmentation.* Insurance is a knowledge business. AI systems can enhance existing human insurance expertise by sifting through vast amounts of data that would overpower human experts on their own.
- *Skill availability.* Especially in mature markets, insurers face a talent shortage, with older industry experts retiring and young workers uninterested in joining the industry.¹⁹ AI-enabled insurance mitigates that issue by augmenting human expertise.
- *Accountability.* In many countries, regulation requires decision making in insurance to be reproducible and transparent to help guarantee fairness and avoid discrimination. Trained in relevant regulation, an AI system could avoid being a black box and could aid in compliance issues, thus protecting not only the customer, but also existing experts' interests.
- *Impartiality.* Humans are prone to unconscious biases in their decision making, especially when faced with new facts that necessitate a reversal of previous decisions. By documenting decision-relevant facts and conclusions, AI systems help increase the objectivity of decision making.
- *Acceptance.* In a 2016 IBV survey, 96 percent of insurance executives said ultimate decisions should not be made by machines.²⁰ However, AI solutions can augment human decision making rather than replace it and help improve decision outcomes overall.

Becoming a Cognitive Insurer

Becoming a Cognitive Insurer takes a shift in mindset toward a data-driven culture, as well as a focus on long-term customer relevancy. It also requires organizational flexibility, ecosystem partnerships and a strong dose of innovation. With that in mind, we offer the below recommendations for executives seeking to make their organization a Cognitive Insurer.

Cognitive insurance in P&C

Groupama embraces telematics

Facing intensifying competition, Groupama Assicurazioni, the Italian subsidiary of French insurer Groupama SA, began looking for new ways to stay relevant with customers. The choice fell to telematics.

Initially offering telematics-enabled automotive coverage supported by a third party, the company went on to build its own telematics system. Now Groupama Italy leverages data from more than 400,000 connected cars—about 35 percent of its auto portfolio—to elevate the customer experience. In addition to improving the claims process, the system enables Groupama to offer expanded services, such as alerting emergency teams immediately after an accident or locating a car after theft.

As part of transitioning into a Cognitive Insurer, Groupama is also able to focus more on preventing risk. For example, its telematics system can analyze customers' normal routes and suggest potentially safer alternatives based on past data.²¹

Cognitive insurance in life

John Hancock and Vitality partner for health

In partnering with health and wellness company Vitality Group, US-based insurer John Hancock has brought cognitive insurance to the life insurance arena. John Hancock requires its life insurance policy customers to join the Vitality program, which is designed to foster a healthy lifestyle.²²

The program comes in two variants. The basic version provides access to general resources and goals related to a healthy lifestyle, coupled with discounts at partner brands for members who reach milestones. The plus version comes with a connected smart device that allows users to share their health data with the insurer. The plus version adds personalized advice on fitness, nutrition and other health measures and offers premium savings and rewards for achievements such as health checks, exercising and eating well.²³

The goal of the program is lower mortality through better health—which benefits both John Hancock and its customers and helps increase the insurer's relevance in customers' daily lives. According to John Hancock, individuals wearing a smart device demonstrated increased activity levels equal to an average of 4.8 extra days of activity per month.²⁴

Set the foundation

Create a data mindset. Data leadership cannot be delegated to the IT department but must be introduced in both top-down and bottom-up thinking. Create the structures and processes necessary for good data governance and allow a data-driven culture to flourish throughout the organization.

Aspire to be life companions. Customers increasingly seek providers that engage and get to know them and use that knowledge to deliver what they need or desire. People don't want insurance coverage per se, but they do want security and safety—so design products, services and customer care around these tenets.

Invest in relevance. In the past, the cornerstone for insurers' differentiation strategy has been actuarial science, with investments primarily involving systems of record such as policy or claims management. The level of personalization and detail necessary for life companionship requires more—the Cognitive Insurer invests in systems of intelligence for analytical capabilities and systems of engagement to allow for that outward-facing push.

Think like a startup, act like a conductor

Start small, scale quickly. To deliver on the Cognitive Insurer vision, start small and tangible. Develop prototypes and minimal viable product (MVP) pilots to show the value and gain support within the enterprise. Where necessary, acquire new expertise from outside to scale to enterprise-grade solutions.

Be prepared for continued transformation: Data insights generated from system improvements in one area can uncover challenges in additional processes or operations.

Bring the focus back to data. Every insurer has some data that is clean and useful. Don't let poor data quality or quantity be an excuse to put off the journey to AI. Instead, start with the data you have, and then use AI as a catalyst for investing in a solid data platform that brings together external licensed and public data to drive broad data sets that enable the training of AI algorithms.

Choose your partners. You cannot solve all problems by yourself—so partner strategically with other insurance and adjacent players. Ecosystems will be created with or without you; join early and learn to orchestrate to leverage the ecosystem to optimal value.

Don't be afraid of innovation

Be ready for disruption caused by insight. Once you kick off your transformation, data can generate unexpected insights that highlight further need for transformation. For example, a telematics-enabled value proposition might uncover challenges in the claims handling process. Be ready for these insights and use them to continuously improve.

Be nimble in execution. Don't stand still. Building a foundation in data and AI will enable the Cognitive Insurer to quickly augment and automate key processes in a beneficial feedback loop. Be aware of skills gaps, and hire or train skilled personnel that can learn fast and adapt quickly.

Embrace innovative excellence. Cognitive Insurers are innovative insurers. As insurers scale their cognitive aspect, they need to learn new ways of working. Learn from innovation leaders—create the organization, culture and processes that foster innovation.

Cognitive insurance across all lines

Malteser and elderly care

In 2017, Malteser International, a Germany-based humanitarian relief agency, teamed up with IBM to equip homes with Internet of Things (IoT) sensors and AI solutions designed to help improve home safety for the elderly.

Parents of employees from Malteser and IBM participated in a pilot program, which began with 150 homes. The houses were outfitted with a smart home hub and sensors, including motion, smoke, water leak, contact and bed occupation. Participants also were provided wearable panic watches. Productive rollout started at the end of 2018 and is projected to reach 5,000 households by the middle of 2020.

The solution has helped increase independence for the elderly participants by enabling them to continue living at home. For insurers and their partners, it offers an opportunity to help reduce loss outcomes by more quickly detecting risks and, in many cases, predicting and preventing risk occurrences. There is also the potential for increased revenue through improved customer retention and additional value-added services for the elderly and new segments like young families.²⁵

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Are you ready to increase your relevance?

- » How are you utilizing data and technology to increase customer relevance and prepare for a future in which products are not a priority?
- » How do you approach data architecture, patterns and governance to ensure data leadership and make data part of the organizational mindset?
- » What partners both inside and outside the insurance industry can you work with to accelerate innovation and improve customer relevance?

For more information

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How IBM can help

Maturing markets, tight capital, increasing risk and technologically sophisticated customers are just some of the pressures the insurance industry faces today. As a result, insurers have to work faster, more efficiently and, above all, smarter. Those that do can thrive, but others will fail. Insurers need to be more nimble, innovative and connected with their customers. The IBM Global Insurance team has reinvented itself, providing solutions to help clients meet the demands of today's insurance business. From enhanced customer service to greater efficiency in the back office and improved risk management, there's a smarter solution for you. For more information about IBM Insurance solutions, visit ibm.com/insurance.

Study approach and methodology

In cooperation with Oxford Economics, the IBV surveyed 5,001 global executives representing 18 industries and 19 functions; the conclusions in this study are based on the responses of the 250 insurance executives in the survey. Roles of responding executives included C-level executives—CEOs, CFOs, CHROs, CIOs, CMOs and COOs—as well as heads of customer service, information security, innovation, risk, procurement, product development and sales.

Respondents were grouped into outperforming and average insurers by premium growth and efficiency. Twenty-five percent of insurers in the sample were classified as outperformers.

Additionally, insurers were grouped by their data performance into data leaders (above average or high data performance, 60 percent), data laggards (low data performance, 21 percent) and others.

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