

Insurance 3.0: Fueled by Data, Driven by Insight

*A white paper featuring insights from senior insurance executives at
The Hartford, Transamerica, W. R. Berkley, and Capgemini*

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Contributors:



Paul Drennan
Chief Data Science Officer
The Hartford



David Hopewell
Former Head of Analytics
and Divisional Chief
Financial Officer
Transamerica



Robert Reynolds
Chief Data & Analytics
Officer
W. R. Berkley



Ajish Gopan
VP & Global Head - Insights
& Data (Insurance & Health)
Capgemini

Introduction

The insurance industry is entering an era of profound transformation. Spurred on by Covid-19, companies across the value chain are grappling with emerging distribution models, demanding customer behavior, rising costs and competition, and the ever-evolving nature of risk. At the same time, the call to do more with the tsunami of digital data is reaching a crescendo.

However, establishing data as a robust strategic asset that delivers actionable and credible insight is not straightforward.

“If it were that easy there would be greater adoption and success across every industry,” says Rob Reynolds, Vice President and Chief Data & Analytics Officer at W. R. Berkley.

Industry veteran David Hopewell, the former Head of Analytics and Divisional Chief Financial Officer of Transamerica, agrees: “Data is messy and not very rewarding to work with. It is expensive, the systems are rigid, and it needs organizing, disambiguation and correction.”

The challenge is laid bare in the results of a cross-industry report from Capgemini’s research institute. Although half of the organizations surveyed claim that decision-making today is powered by data, less than 43% are able to monetize their data and insights through products and services, while just 39% are delivering sustained competitive advantage.

Speaking about the survey results from an insurance industry perspective, Capgemini’s VP of Global Data & Insights, Insurance, Ajish Gopan says: “Much more can be done to close the chasm between how companies perceive the quality of their data and its actual usefulness.”

1. To the core and beyond

Every insurance company is to some degree or other dependent on its core systems. “Core systems are the centrepiece of everything,” says, Paul Drennan, Chief Commercial & Operations Data Science Officer at The Hartford,” and handle everything from our premiums to policies and claims.”

To date then, digital core modernization and getting core platform strategy right has been the focus for carriers, but for better or worse, how they have tackled it varies.

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Some companies have invested in upgrading existing systems to better serve the demands of digital customers, while others have focused on digitizing engagement systems to deliver an omnichannel experience. What has made this more complicated is the transaction-centric insurance industry's "conveyor belt of activity". W.R. Berkley's Reynolds explains this includes everything from the submission of a policy to clearance, quoting, negotiation around the quote, deciding the terms, the binding, post bind process and so on. The result of this, he explains, is that the industry often "still thinks in procedural, process-oriented terms, which is, frankly, an antiquated approach".

However, according to Gopan, "forward thinking insurers are now grasping that simply changing the front end and patching up back end systems isn't a sustainable long-term solution".

The good news is that traditional ways of working (including projects relating to core maintenance, stability, or efficiency) and new projects that spur innovation and competitive edge do not need to be mutually exclusive.

But to address some of the key challenges requires a nuanced, thoughtful approach. Explaining one, Reynolds says: "Building something sustainable and manageable from a core platform perspective can cause longer time horizons because when you try to onboard new products, services or features everything has to fit into a rigid infrastructure."

Another is deciding whether to use data to streamline existing processes or to identify new products and services that data could be designed into. "For me, this raised the question of whether additional data is backwards compatible, and the answer was decidedly mixed process change is never easy, even with more data," Hopewell says.

2. Evolving the ecosystem and the journey to the cloud

It is fair to say that data works best in more integrated environments than traditional insurance. But fortunately, with the newer systems of today, a "less linear, more fluid approach is possible," Reynolds says, pointing to the Guideware platform of an example to achieve greater core system interoperability, while enabling an API ecosystem.

At the centre of many modernization efforts is the move to the cloud. However, adoption is happening at different rates and varying levels of strategic importance across the insurance industry. "There is," says Reynolds, "no one-size fits all."

The benefits, however, are clear. A recent global survey from Capgemini reveals a growing appetite for a native cloud approach to application development and deployment. Among some of the findings are:

- Spend on platform as a service (PaaS) to rise from from 26% to 44% over the next three years
- 64% of insurers say it takes less than 14 days to develop and deploy new web applications
- 84% say that cloud native has helped them increase revenues and cut operating costs

At The Hartford, where over a hundred applications were successfully migrated to the cloud in less than nine months, Drennan says “cloud computing is probably playing the biggest part in the story” of reimagining and elevating customer experiences through digitalization.

Once data is in the cloud, the door opens for new business models and additional business capabilities. Says Gopan: “This could just be just around existing systems, but it could also be transformational.”

Transformational technologies include:

- **Human API:** Delivers a real-time health data network that gives consumers a simple and safe way to take ownership of their data, which can be viewed and shared everywhere.
- **Wearable AI:** The usual suspects like Apple Watch can provide data from oxygen levels, aerobic and anaerobic activities making it possible to build a profile of somebody without a blood test. As a result it is now possible to underwrite based on third party data. Few innovations in this space include one from medical start-up PhysilQ, which uses AI to build a unique patient profile. It is being used to monitor the recovery of Covid patients at the University of Illinois hospital.
- **Groundspeed API:** An end to underwriting capabilities could be in sight by converting unstructured data into actionable insights and by leveraging machine learning and AI.
- **Telematics as a Platform:** Built to avoid accidents and losses, sensors can be installed in every home, as well as factories, to detect leakages, water damage and so on.

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New frontiers

With blustery headwinds blowing, however, the question now is: how can insurers deliver new products, services and capabilities while harnessing insights from data ahead of the competition?

At the most basic level, it is no secret that companies are turning to hyperscaler providers for cloud, networking and internet services delivered via an infrastructure as a service (IaaS) model. Valued at \$38.94 billion in 2019, the IaaS market, which is dominated by Google, Microsoft and Alibaba, is projected to rise \$201.83 billion by 2027, according to Allied Market Research.

Meanwhile, Insurtech innovators like Hippo, Ethos, Lemonade and Ladder Life are accelerating the innovation agenda to deliver what today's 'digerati' have come to expect.

The distribution channel also represents a new frontier for innovation, as illustrated by the rise of new age digital brokers like Acrisure and Policy Genius. While these business models were given their chance to shine during 2020's Covid-19 crisis, 60% of insurance executives were battling to acquire customers during these tough times, according to [Capgemini's World Insurance Report 2021](#).

While it is still early days, Hopewell believes there is potential for a next generation business model, where "insurance companies support agents in the data space in ways that were not previously possible, and are currently not possible at the agent level." While this may not be customer-specific "it has the same effect - more customers, better customers and more sales per customer".

Case Study: Treading the fine line between empathy and AI bias

"At The Hartford, data is the fuel driving insights," says Drennan, citing one example of how the company is developing insights from data to achieve positive outcomes for workers and their employers. Using AI to analyze workers' compensation claims, it has been able to understand who might be higher-risk candidates to become dependent on opioids.

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As Drennan explains, the system looks for clues such as insomnia, anxiety, a recent divorce, death or other loss. “When an injured worker’s details match the warning signs for people at risk for opioid dependence, an experienced nurse will review the prescription to see if the prescription is appropriate and medically necessary,” he says, adding: “Often the nurse will recommend alternative treatments that are intended to be equally effective, such as physical therapy, acupuncture, or even inpatient rehabilitation.” In general, injured workers appreciate “our care and the empathy because we are helping them get back to work and good health – safely”.

While advanced technologies can avert unnecessary claims and even save lives, Hopewell points to the headline risk of biased data and AI. “Your algorithms can find things you were not aware of, which can coalesce biases even in data where the explicitly biased information has been removed.”

The good news is that bias is “relatively straightforward to deal with it, providing,” says Hopewell, “you make it a priority”.

3. Transforming business, delivering value

Hopewell found that when talking about data in the data-driven world the question that arose was: “are we really talking about data, or are we talking about analytics or about business transformation?”

In his view, a data first discussion delivers no real pay off unless there is the specific problem to address that relates to current business. Analytics, on the other hand, doesn’t exist with context and requires use cases.

For this reason, “I concluded that data is often code for business transformation,” Hopewell says. In practice, this means using data to contain costs and drive efficiencies from underperforming existing processes, while delivering measurable bottom line benefits. On this score, according to Capgemini’s data enterprise report, there is room for improvement as just 19% of insurance organizations are able to quantify the value of data in accounting processes.

Hopewell acknowledges that companies today really need “transforming innovations”. But wearing his finance cap, he says: “It is difficult to allocate money to something that has a 10% chance of success, even if will change direction of company.”

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One way of managing this path to innovation is with an agile, lean approach. “I believe in doing analytics projects in short stages and if the stage fails, you quit spending money on it,” Hopewell says. This is an effective way to deliver many projects. But his experience as a senior leader taught him that a cheap, agile methodology isn’t enough. “With early success you often reach a point where the company has to spend millions of dollars to scale, and you need to be ready for that conversation even before you’re certain the project has succeeded.”

Conclusion

In insurance, everything must begin with the customer, the claimants, and other partners in the value chain. Systems and functionality should revolve around better decision-making for carriers and ease of use for partners. Ultimately, any investment must lead to the best possible decision for both the company and its end customers in the fastest possible timeframes. To achieve this, data must be efficiently aggregated from multiple different sources and integrated in a more thoughtful way, and any tools must be used to serve customers better. Most crucially, as all data can be sensitive and assembled in way that identifies individuals, it must be secure. Trust in the data is also a prerequisite. This may represent a heck of a lot of work, but for those wishing to ride the data wave of the insurance industry for centuries to come, it has to be worth it.

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