

Developing an Effective Data + AI Strategy

Leveraging Data in Insurance.



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Chapter

01



Introduction

Introduction

The past decade has seen unbelievable changes in how we live, shop, work and communicate. But in insurance, change has been slower—particularly around data.

And this is a big problem because data is, and always has been, the industry's lifeblood. Think back to the days before computers; insurers still relied on a blend of data and gut instinct to make decisions around risk. The only difference is data was stored on paper.

Today, data holds the potential to revolutionize how insurers assess risk, sell their services and scope new opportunities.

In this e-book, we'll examine why insurers still find it so difficult to embrace data, what this means for competitiveness in a world of digital trailblazers and why change is inevitable.

We'll also explore why creating a well-considered data strategy is the key to unlocking new opportunities, the benefits it can bring and how AI can help transform it into actionable insights in ways that were unthinkable ten years ago.



02 Data: an organization's most important asset

Time to get strategic → with your data?

The critical importance of data is nothing new for insurance firms. Every decision firms make is backed by some level of data, from initial quoting to the claims examination process.

But despite the key role data plays in the industry, few insurers have a mature data strategy in place. A strategy that clearly explains the role that data will play in the organization's future success and in a language that's understood by the business and balanced across all aspects of data—including technology, process, people and governance.

Without a well balanced, effective data strategy, firms risk siloed working and missing holistic value creation opportunities

One of the biggest challenges insurers face is the fractured nature of their data sets due to so much of their data being stored and processed manually. The way many insurers have grown through acquisition also means it's common to have disparate, unintegrated IT systems.

Many also suffer from siloed data and operations, making efficient data sharing almost impossible. It's a vicious circle, where teams don't know what data is available in their organization and have no common systems in place, perpetuating a culture where each department manages its own data ecosystem.

Manual processes are also commonplace. For example, in the commercial insurance market, where vast amounts of physical paperwork are still the norm, a significant amount of data is trapped in documents that hold untapped insight, from risk management reports to statements of value. Getting this data into a system for processing and analysis is highly manual work that's expensive and increases the risk of human error.

Often, insurers have no single source of truth across the organization and lack integration with external datasets and partner systems. These firms face a race to the bottom, where escalating costs, unmanageable risk and more savvy competitors put them out of business.



New kids on the block: How intelligent data is blurring the lines of insurance

The next few years could be challenging for many insurers. AI is rapidly changing the status quo and existing (more manual) business models may quickly become too costly to be viable.

And although the experience of many technology companies coming into the industry on the distribution side – offering new agent experiences, new mechanisms of gathering data, even occasionally doing the underwriting as well – hasn't always proved successful, successes do exist. [Tesla insurance](#) saw a year-on-year increase in premiums of 115% and with a fronting arrangement with State National, it has become the specialty insurer's largest producer. Tesla Insurance is also distributed through the company's two licensed carriers – Tesla Property & Casualty and Tesla General.

While expansive platform operators are undoubtedly in an advantageous position to grab opportunities, it's a glimpse of the future for truly innovative, data-driven insurers with the right vision.

03 The pressures on firms to create well-considered data strategies

Feeling the urgency ➡ to do more?

While insurers have taken data seriously for decades, the time has now come for them to treat it in a more structured way that addresses key pain points across the organization.

Externally, increasing customer expectations, evolving capabilities, competitor investment and disruption, coupled with internal frustrations from employees expecting more modern tools, are all driving substantial urgency for insurers to do more.

Our work with insurers has identified **five key pressures** that are consistent across the industry.



01 /

Compliance

Both the insurance industry and the data it collects are subject to stringent regulations that vary between geographic territories—this can be anything from state laws to overarching federal legislation.

Although the US has no central all-encompassing federal data privacy law like the EU's General Data Protection Regulation (GDPR), several vertically-focused federal data privacy laws target different sectors.

The Health Insurance Portability & Accountability Act (HIPAA), has created national standards to protect sensitive patient health information. And for financial services and their products, the Gramm-Leach-Bliley Act (GLBA), requires financial institutions, and others offering financial services and products, to communicate how they protect and share customer's private information and the customer's right to opt-out of any third-party data sharing.

What's more, these laws can frequently change, either through amendments or legislative challenges. So, insurers need tighter controls and auditing capabilities to ensure they stay on the right side of the law.

There are also a new generation of consumer-oriented privacy laws coming from the states. The California Consumer Privacy Act (CCPA), adjudged as the US's most comprehensive data privacy legislation similar to GDPR and also, Virginia's Consumer Data Protection Act (CDPA). With many other upcoming state data privacy laws currently undergoing legislative scrutiny for New York, Massachusetts and Maryland.

These require substantial engagement from insurers to stay abreast of changes and ensure they're following regulations. No matter your location, no allowance is given for naivety. If firms can't stay abreast of legislation in all the territories where they operate and prove they're upholding these laws, they risk substantial fines and reputational damage.

02 /

Customer expectations

Whether they're shopping for clothes or buying insurance, customers want a fast and personalized experience with companies truly understanding and anticipating their needs. Customers are also no longer tolerant of poor experiences that can result from a lack of data, such as receiving irrelevant marketing offers.

But good customer experiences are only possible with the support of joined-up data that's scalable and delivers unique insights. Detailed data on customers matched to a wide range of sources can help deliver outstanding experiences.

This becomes increasingly more important in the face of disruptors that leverage data and AI to put customer engagement at the core of their offering, creating new experiences to attract customers.

03 /

Employee expectations—the war for talent

Just like customers, employees expect a modern experience that helps them focus on their core roles and progress their careers. But with jobs dominated by poor data it prevents many from performing efficiently and risks fostering cultures of low morale. Or worse, employers risk hemorrhaging their best talent.

And with a global shortage of skilled insurance professionals and with over 50% of insurance industry workers due to retire in the next 15 years, organizations can't afford to ignore employee expectations or risk losing talent to more progressive competitors ⇔

04 /

Cost

Skilled insurance professionals are costly, their time is precious and needs to be focused on high-value-added activities that require their expertise.

The last thing any firm wants is their staff wasting time searching for data among countless systems, emails and disparate storage platforms. With the cost of servicing clients under increasing scrutiny, many insurers are looking for ways to make it easier to access data.

One clear solution is to use automation for the heavy-lifting of data administration, enabling the delivery of a faster and lower cost service. Without this, insurers are likely to lose out to providers who can, driving a commercial disparity and significantly impacting competitiveness.

05 /

Mitigating risk

Risk forms the basis of the entire insurance model. So, insurers will never be rid of risk completely, but mitigating it and reducing its impact requires a combination of data-driven insights and human expertise.

Until relatively recently, data-based risk analysis has been performed using manual data analysis methods, interpreted by expert professionals. While it's a process that's served insurers well historically, when compared with automated competitors, it is inefficient, costly and prone to human error.

Risk professionals need instant access to a single view of the data ecosystem to work at their best. And the more diverse the data sources are, the more informed those risk decisions must be.

04 If data is so important, what's holding firms back?

Ready for a data → enabled future?

Ultimately, some organizations are confused by data, its infrastructure, processes and potential benefits—and often don't know where to start. It's also important to say that “working with data” shouldn't be confused with a well-thought-out strategy that helps an organization on their data journey and work toward a data-enabled future.

While siloed working is a significant challenge for insurers, it's also a major factor preventing them from becoming data-driven. Without the right knowledge of what data is available in the organization, it can be almost impossible to decide what data teams need, let alone gain easy access.



Many insurers also don't have dedicated data managers, such as a chief data officer. Without a single point of responsibility for data across the organization, it's extremely challenging to govern how data is used and make the most of it.

While there are countless factors that can restrict a data-driven future, with the right strategy and expert guidance, organizations of any data maturity can reach a point where they're able to exploit the potential of their data to drive great outcomes.

Instead of seamlessly sharing data
at the touch of a button, many
insurers are hamstrung by time-
consuming batch processing

05 How to create a well-considered data strategy

What is a well-considered data strategy, exactly?

Every organization has a hypothesis about how it will be successful. They write this down in a business strategy document—this is how we want to succeed and this is how we'll make it happen.

Data is no different. Every company “does data,” and, therefore, needs a written record of its goals, execution, and what success looks like. A data strategy describes how they'll “do data” in a way that delivers on their business ambitions.

01 /

Why?

This involves answering questions about the opportunity for data and AI. What value could we gain? What does a potential future state look like? What would be the benefits of arriving at this future state? What happens if we don't do things differently?

02 /

What?

Understand which pieces of the data puzzle your organization already has so you can understand what you can change, your starting point and the enablers that will help to accelerate change. This can include analytics, governance, platform, skills and culture.

03 /

How?

Answer fundamental questions about the journey from your current state to a future one, describing everything you'll likely encounter and the incremental value you can expect to gain. This includes short-term activities and quick wins but also sets expectations around investment and timeline.

When building a data strategy document, the most important thing is to prioritize what you want to achieve and not do everything at once. Taking a stage-by-stage approach makes you less likely to spread yourself thin.

After these key questions have been answered, you'll have a better understanding of how improving utilizing data will impact your organization.

- What internal data do we currently have, and where does it reside?
- What external data sets can we use to augment the existing data?
- What do we want to achieve with data?
- How reliable is our data, and what must we do to bring it up to standard?
- How is our data stopping us from achieving our objectives?

06 We need to talk about AI

Are you → AI-ready?

From data gathering, validation and monitoring, to intelligent data analytics-driven decision-making, AI and automation can potentially transform the insurance industry.

Existing analytics are typically rooted in statistical methods and are less scalable and don't allow for analysis of broader data types, such as text or image, to extract insights. AI is designed to overcome these challenges. It doesn't just perform repetitive tasks, but instead mimics human behavior by observing patterns and outcomes at scale and speed.

But for AI to learn and take autonomous action data needs to be in the right format. Those who get this right stand to benefit from significant operational opportunities and greater insight.

It is predicted that AI in insurance will reach a value of more than \$40 billion by 2030, at a compound annual growth rate of over 32%

07 Common insurance use cases where AI yields the biggest benefits



Underwriting

Effective and profitable underwriting needs an understanding of the risk being insured and the wider business portfolio.

By combining data sources from inside and outside the organization, firms can give underwriters a complete picture and key insights to make more strategic and profitable decisions. That could include everything from telemetry and sensor data to customer purchase histories.

By analyzing data at a deeper level, its insights also allow insurers to gauge risk more effectively.

The beauty of a data-driven approach to underwriting is that, when combined with the right technology, previously manual collection, analysis and validation processes can be automated and even augmented with machine learning.



Claims processing

In claims processing, speed, accuracy and meeting customer expectations are key factors for success. And through the power of data, claims can be handled quicker and more accurately.

In fact, AI can be used to fast-track claims processing and automate invoice processing and payment.

Data-driven insights can even be used to offer guidance and approve claims for specific customers proactively. For example, by combining real-time weather and news data at a regional and global level, firms can issue proactive warnings and advice that could help eliminate the need to claim altogether.

And when data is analyzed in the right way, it can also hold unique insights that help identify and prevent claims fraud.



Customer experience

Just like in many other industries, data holds significant potential to transform customer service.

For example, customer service agents with access to the right information—and even AI powered by the right data—can deliver a more personalized service and ensure seamless interactions when customers most need them, such as after a flood or house fire.

Blending historical customer data with other real-time sources can also help firms better meet customer needs—including designing more convenient customer journeys.



Governance

Ensuring clear governance is upheld and scrutinized regularly is an essential requirement for any insurance firm. What's more, legislation varies across territories, meaning cross-state or -country and multinational firms need detailed compliance breakdowns across their operations.

With more data-driven processes, insurers can create transparent audit trails of what's happening around the business—no matter where their people, partners and customers are based.

In turn, clearer views of data sets can help teams take greater responsibility for data and ensure consistency organization-wide.



Efficiency

AI can remove the manual burden of quote generation and can even spot unusual activity so employees can focus on more personal customer care. Chatbots can also help to develop promising leads and handle basic inquiries autonomously.

Insurers can use the right data sets to interrogate their processes more closely and identify inefficiencies, spot chances to lower their risk and win new business.

And with more insights from data, insurers can strategically manage aggregation risk to prevent taking on too much risk in small areas.

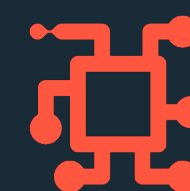
Surfacing relevant insights through AI-augmented data

Using more structured and intelligent data can help you spot opportunities and threats and respond quicker.



Leaner

Doing things quicker with less risk of error



Smarter

Surfacing insights to drive better decisions at speed



More engaging

Delivering more relevant and personalized customer interactions, such as proactive communications

08 Where to start your data-driven journey

To transform into a data-driven organization, there are four questions any firm must understand:

Q1

Where do you want to be as an organization and how will data and AI play a role in success?

Q2

Where are you starting from through current state assessment across core pillars of transformation, including governance, culture, technology, skills, data assets and analytics?

Q3

From business stakeholders what are the opportunities to create leaner, smarter, more engaging business models?

Q4

What is your path forward? Where can you deliver early value through quick wins to help build momentum around your transformation?



It's then essential to map out what you want to achieve, be clear about your goals and ensure they're viewed consistently throughout the organization.



Tackling easier problems allows you to make quick progress in your data strategy and prove to stakeholders that the strategy quickly creates tangible gains.



It's then up to you to bring your strategy to life, enacting it in a way that's mapped to your original goals, while staying agile to keep pace with a changing operating environment.

Why Endava?

Embarking on a data-driven journey is, of course, not something to go into lightly. And without the right skills and expertise, you can risk making the wrong decisions from the start.

That's why it's important to use a trusted partner with the right industry expertise, who knows how to take advantage of opportunities and overcome potential roadblocks.

As data strategy specialists with a proven history supporting insurers, we can work closely with your organization to help:



Create clarity

around the role of data and AI in your firm's future success.



Deliver greater value

from your data by leveraging AI, to enable leaner, more intelligent, engaging business models.



Build stronger foundations

that support long-term business and customer value.



In focus:

US insurer builds strategy to modernize enterprise data warehouse.

- Since founding their business in 2016, a leading US specialty insurer had grown significantly—and the amount of data they needed to store and utilize had grown along with them. Their existing enterprise data warehouse (EDW) needed to be scaled to their current operations.
- The company partnered with Endava to rectify issues with their current EDW and build a futureproof plan. We approached this by creating a strategy to re-architect and redevelop the EDW onto Snowflake, identifying opportunities for enterprise-grade tools and components, and creating a full data governance model to scale with the insurer.
- With the plan for a modern EDW in hand, the insurer now has the components needed to create a single source of truth for all analytical data. The recommended tools will ensure that data is assessed at the point of ingestion, improving data quality and reducing manual workloads.

Leveraging better data ↳ supported by experienced strategists

As an established insurer, you're no stranger to operating in a fierce marketplace and weathering tough economic times. But with the right data strategy—supported by the right partner who understands your industry—you can gain a significant advantage and make more sense of an unpredictable world.

[Get in touch with our team of experts today](#) and discover how Endava can help you transform your data and take advantage of AI to gain a competitive advantage.



About Endava

Technology is our how. And **people** are our why.

For over two decades, we have been harnessing technology to drive meaningful change.

By combining world-class engineering, industry expertise and a people-centric mindset, we consult and partner with our customers to create technological solutions that drive innovation and transform businesses.

Working side by side with leading brands, we build strategies, products and solutions tailored to unique needs, regardless of industry, region or scale. From ideation to production, we support our customers through every step of their digital transformation journey, creating dynamic platforms and intelligent digital experiences across various industries.

