Why AI in Insurance Claims and Underwriting?

Improving the insurance experience

Introduction

With today's rapidly maturing technologies and the ability to tap into ever-increasing data, AI has emerged as the transformative technology and critical differentiator in the insurance industry, especially when applied in tandem with humans.

To further identify opportunities around AI for insurers, Accenture conducted research to better understand both how insurance customers and employees can benefit from the maturity of AI in Claims and Underwriting.

Survey methodology

We conducted surveys to gain 3 perspectives on insurance industry pain points and opportunities to improve through use of AI:

6,784

home and auto insurance customers,

across **25** countries, who have made a claim in the past 2 years.

128

insurance claims executives

in **13** countries.

434

US-based underwriters from entry-level to executive/senior management, including members of The Institutes supplemented with a sample list from Risk & Insurance Group.

Unless otherwise cited, all data are from primary research conducted by Accenture.

These surveys, in conjunction with market trends, point to three areas carriers should consider as they take their next steps in the AI journey.

01   AI is transformative in the enablement of improved customer interactions, increased efficiency/automation, and decision effectiveness.

02   AI must be applied responsibly and in tandem with humans to meet ethical guidelines, affirm regulatory decisions, and enable the insurance workforce of the future.

03   As the economics around AI improve, the value delivered through AI solutions indicate that now is the time to invest in AI-led transformation.

In this report, we explore these considerations in detail and reveal why AI is the transformative technology in insurance claims and underwriting.

AI is transformative for insurance customers and carriers

As AI matures, insurers can leverage the technology to improve customer relationships through enhanced interactions, while realizing gains in both process efficiency and decision effectiveness.
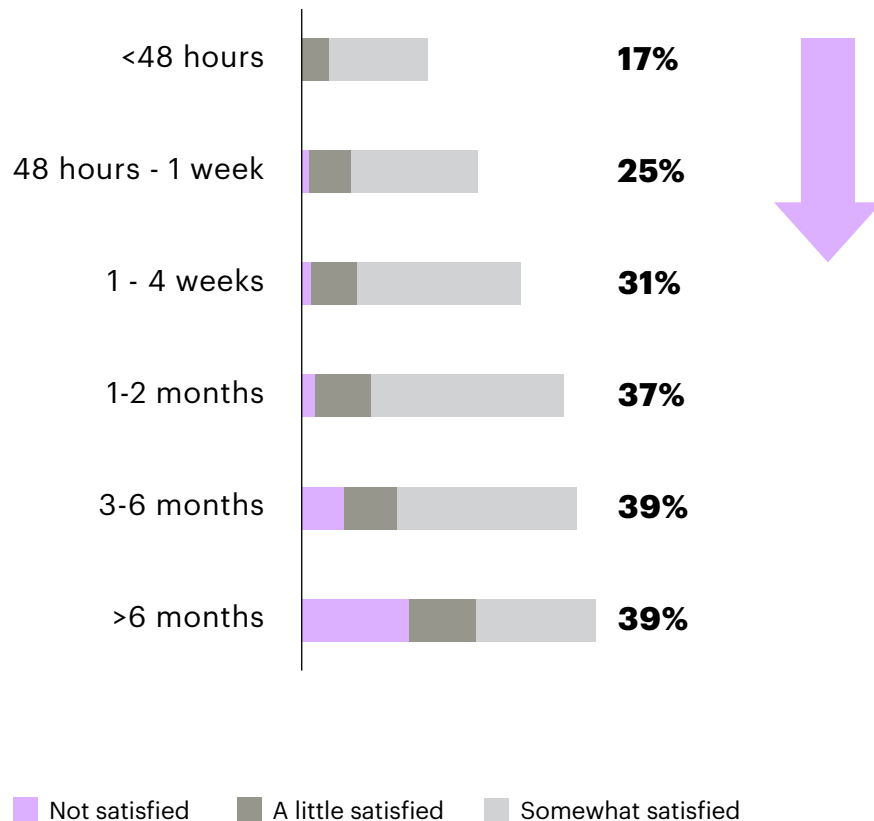
Enhanced customer interactions

Coverage, price, and service experience are the main factors consumers say they consider when choosing or remaining with an insurance company. Yet in today's highly commoditized market, many customers who choose an insurer or policy primarily on price may not understand what is covered or what to expect in the claims process. This often results in a dissatisfied claimant.

Our research found that a third of all claimants say they were not fully satisfied with their most recent claims experience. While it may seem a small percentage of the total insurance customer base, these claimants represent up to $170 billion in renewal premium over the next five years.

A clear pain point is speed of settlement. It is the factor that causes the most discontent among dissatisfied claimants. AI solutions can improve settlement time by enabling digital and self-service claims processing that dramatically enhance customer experience and accelerate processing. In fact, many leading insurers have invested heavily into this aspect, creating omni-channel environments that leverage the use of chat bots, rich text messaging, guided scripting for agents, among other AI driven methods, to address these gaps in customer interactions today.

Q. How satisfied were you with how the insurance company/agent handled the claim?

% of policyholders not fully satisfied by speed of settlement

<48 hours	**17%**
48 hours - 1 week	**25%**
1 - 4 weeks	**31%**
1-2 months	**37%**
3-6 months	**39%**
>6 months	**39%**

■ Not satisfied ■ A little satisfied ■ Somewhat satisfied

Case study

Compensa Poland, part of the Vienna Insurance Group (VIG), has enhanced its customer experience with a self-service claims-handling solution. It uses advanced data analytics to automatically process claims from first notice of loss (FNOL) through to smart claims segmentation, routing, assessment, settlement and adjusting the claims reserve, which results in more accurate payouts and high customer satisfaction. The AI-based system led to as much as a 73% increase in claims process cost efficiency, and 50% of customers who used the self-liquidation application said they would recommend it to a friend or family member.[1]

[1] Automatic payment in a digital claims process

Increased automation and efficiency

Our underwriting employee survey found that up to 40% of underwriters' time is spent on non-core and administrative activities. We estimate that this represents an industry-wide efficiency loss of up to $160 billion over the next five years.

Incorporating AI and automation into the underwriting workflow is a prime opportunity to reduce time spent on administrative tasks, manual processes, and redundant data inputs. An intelligent UW solution (submission ingestion, data enrichment, triage, appetite fit & propensity to bind scoring) allows underwriters to focus their time on risk evaluations of submissions most likely to drive (profitable) bound premium.

In Claims, typically approximately 40% of inbound call volume are comprised of basic claims status checks. An AI-driven, outbound status message delivers improved experience and efficiency gains of reduced inbound calls.

More effective decision-making

Underwriters acknowledge that AI-driven risk appetite and risk scoring have helped improve performance in terms of risk selection and pricing accuracy.

In claims, AI can provide insights that help insurance companies prevent leakage. For example, in the case of Compensa Poland, while the goal was to improve customer satisfaction, the implementation of the AI-based system also led to a 10% improvement in claims accuracy.[2]

[2] Automatic payment in a digital claims process

Case study

Daido Life Insurance in Japan is a formidable underwriting use case for AI. The company has built a powerful AI prediction model that visualizes the decision-making process and enables underwriters to perform assessments while checking the AI's prediction results and cautionary points. This model improves back-office efficiency, while solving the AI black box problem through human verification of AI predictions. Daido Life will continue to refine the model by accumulating underwriting results from AI predictions and human judgment.[3]

[3] An artificial intelligence (AI)-based medical underwriting solution

AI must be applied responsibly and in tandem with humans

Leading insurance companies will develop AI strategies with careful attention to ethics, regulation and responsible business. In the face of workforce challenges across the insurance industry, AI will also be essential to the insurance workforce of the future.
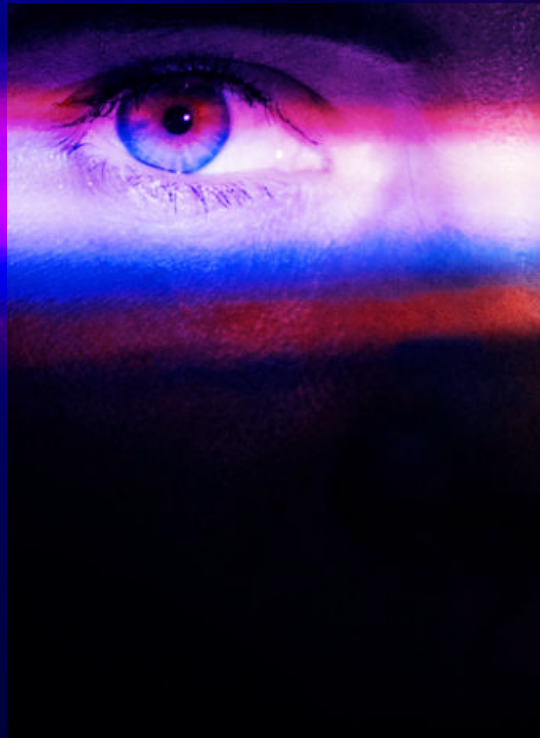
Ethical and regulatory implications

Carriers need to be aware of the ethical and regulatory implications of using AI solutions. Humans must test AI solutions to avoid coded biases that can unintentionally produce decision results that propagate historic racial, gender, and other socioeconomic disparities. An insurer's data scientists must take care when selecting taxonomies and training the AI on how to use data.

Case study

Loop, a US-based insurtech, strives to provide more equitable auto insurance options by basing its rates on what it considers to be more relevant metrics than those used by incumbent insurers. Rather than customer attribute data like credit score and marital status, Loop relies more on driver behavior and location data, utilizing AI to set personalized insurance pricing.[4]

[4] Austin insurance tech startup Loop raises funding, gets set to launch

Explainability

With a rules-based system, insurers can explain the logic of a decision. However, with AI, there must be humans who work in conjunction with AI solutions and who are empowered to modify an AI-generated decision as needed.

Future workforce enablement

With the aging insurance workforce, especially in Life Insurance and Property underwriting, the workforce will see dramatic change in the next 5 to 10 years. The US Bureau of Labor Statistics estimates 50% of the insurance workforce will be retired in 15 years, leaving more than 400,000 open positions.[5] Replacing them person-for-person isn't viable. AI solutions must supplement the workforce and help transform the insurance operating model.

In an industry where feedback from employees often reflects a desire to work on things they care about, AI frees up humans to do exactly that. Insurers can put AI solutions to work on tasks that are tedious to humans, or which machines can do faster and more accurately, while skilling humans for work that requires emotional intelligence and personal judgement.

Case study

Edelweiss Tokio Life has partnered with Element AI to drive an AI program that balances creating value today with building capabilities for tomorrow. Empowering employees to work smarter with AI by building an organization's literacy and trust to work with AI is at the center of the initiative. It is also establishing a framework for trustworthy, explainable and responsible AI for now and the future.[6]

[6] Edelweiss Tokio Life partners with Element AI for AI transformation journey

[5] US Bureau of Labor Statistics Occupational Outlook Handbook

Now is the time to adopt AI at scale

As the economics around AI improve, the value delivered through AI solutions indicate that now is the time to invest in AI-led insurance transformation.

Affordability and value of AI

The costs of implementing AI are falling dramatically, making it more viable to adopt it at scale. Consider, for example, that the cost to train an image classifier like ResNet-50 on a public cloud platform dropped from approximately $1,000 to $10 between 2017 and 2019.[7] AI investments can also be leveraged across insurance functions, creating gains across the value chain (e.g., Claims, policy service, and contact centers).

Investment in AI is accretive to market and investor confidence

Investors have recognized the industry-changing potential of AI. Insurtechs that leverage AI, machine learning, machine vision, natural language processing and virtual assistants/bots as their primary technology solution raised 20% more investment each year (CAGR) from 2015 to 2020. In 2021, there were at least five instances of VC funding each worth more than $100 million into AI-led insurtechs. This indicates the potential for insurers to boost market and investor confidence through strategic investment in AI.

[7] ARK Invest: The Cost of AI Training is Improving at 50x the Speed of Moore's Law: Why It's Still Early Days for AI

## Investment in AI-led insurance transformation is ramping up

Across all industries, including insurance, AI ranked consistently as the top game-changing technology in Gartner's CIO surveys over the last three years (2019 to 2021). Insurers are starting to see the value of AI and adoption is set to accelerate. While less than half of claims executives (44%) say their organizations are advanced in use of automation, AI and machine learning-based data analytics, 80% say these technologies can bring more value, and 65% say they plan to invest more than $10 million into AI in the next three years.

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Conclusion

AI is no longer a technology of the future, but an established presence in our everyday lives. Many insurance innovators are already putting it to work to deliver better customer experiences and empower their workforces in parts of their business. As humans and AI collaborate ever more closely in insurance, companies will be able to reshape how they operate, becoming more efficient, fluid and adaptive. It is those that are already moving to leverage AI to create gains across their functions and value chains that will be able to create sustained competitive advantage in the future.
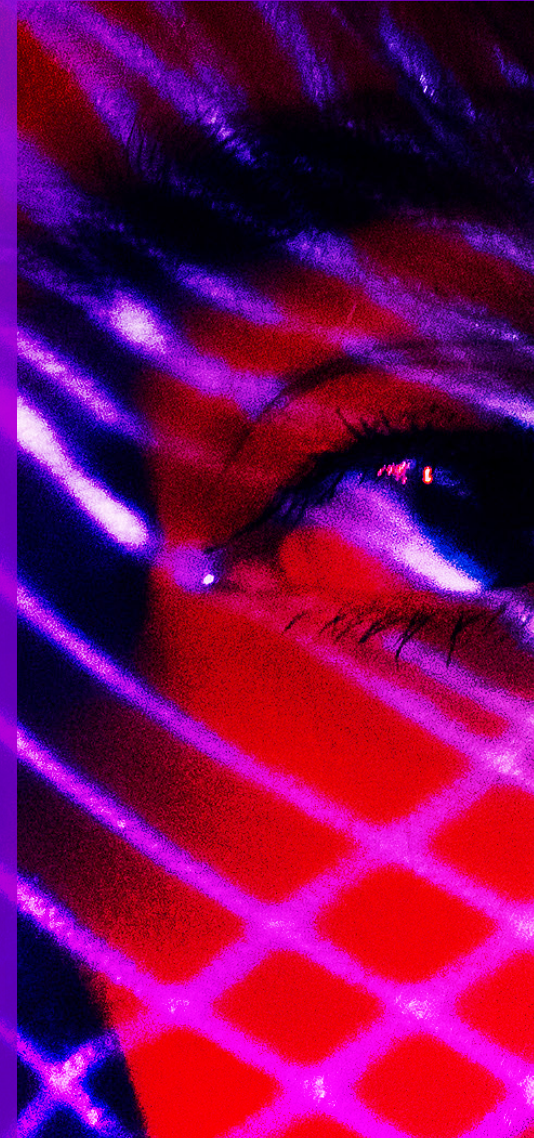
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