Executive summary

AI maturity in the insurance industry

Is your organization ready to harness the power of AI and unstructured data?

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Introduction

Artificial intelligence (AI) and unstructured data are beginning to reshape the insurance sector, offering opportunities to enhance customer experience and streamline operations. However, the sector remains early in its AI maturity journey, especially when compared to the banking and financial services sector. Despite this early maturity, insurers have begun successfully leveraging AI to deliver personalized customer journeys, with tools like AI automation and retrieval-augmented generation (RAG) playing a key role in their success.

Findings are based on research conducted by Iron Mountain alongside independent market research specialist Vanson Bourne. Data in this report is based on 195 IT and data decision-makers in the insurance sector, who have knowledge or involvement in their AI strategy.

You can read the global report **here**.

Three key takeaways:

The insurance sector is early in its AI maturity journey, with more than double the number of organizations in the early stage of their journey when compared to the banking and financial services sector (**17%** and **8%** respectively)

Additionally, the insurance sector reports AI-automation and RAG tools as the most important in contributing to their organizational success today, and over the next two years

On average, **63%** of AI use cases leverage unstructured data, yet improvements need to be made to increase the accessibility, credibility and governance of this data

Current AI adoption

In general, the insurance sector has a relatively even split of organizations across the AI maturity journey. However, there's a much higher proportion in the early stages than the later, more mature AI segments (see figure 1).

Comparing the insurance sectors AI maturity to the global average

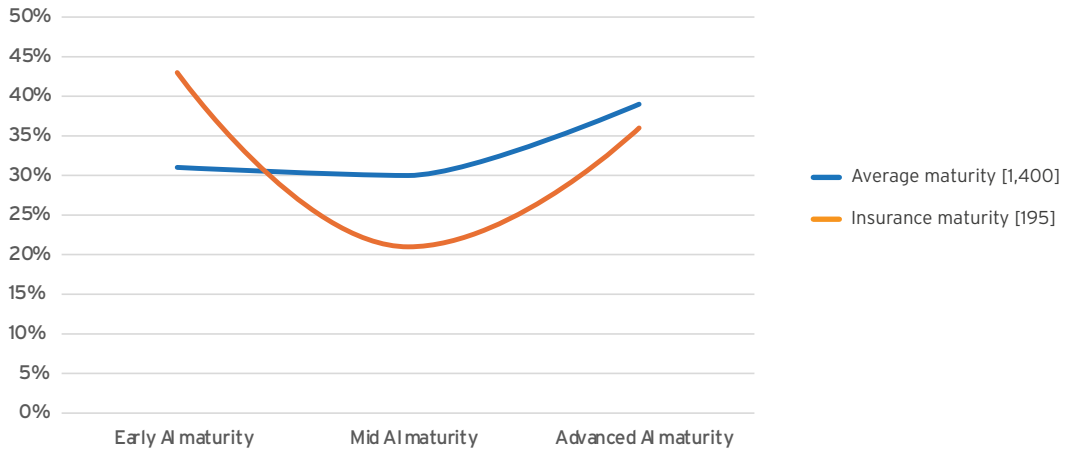


Figure 1. AI maturity curve analysis, looking at the global average curve, and insurance maturity curve. Base size shown in chart.

In fact, the insurance sector is one of the most likely to be earlier in their maturity journey), as **43%** of organizations in the insurance sector fall into the early AI maturity group. What's more, just one other sector (manufacturing and production sector) has a higher proportion of organizations in the early maturity stage globally (**46%**). This early stage of AI adoption likely comes down to a more conservative approach to digital transformation, prioritizing stability and compliance over rapid innovation.

Moreover, organizations in the insurance sector typically have more outdated legacy IT systems embedded within their operations. This sector also is heavily regulated with strict guidelines around risk management, confidential data, and data privacy, which can result in a much slower uptake in AI adoption, particularly for innovation.

To accelerate the adoption of AI and increase the value of AI initiatives, more than half (**59%**) of insurance organizations are focusing on allocating more resources for AI expertise and project development. Similar proportions (**55%**) want to focus on scaling IT capabilities to manage and process large volumes of data more efficiently, including improving the sourcing and preparation of relevant data sets for AI training and analysis (**53%**).

Additionally, **56%** of organizations within the insurance sector have a desire to establish comprehensive data and model governance frameworks. They are the most likely sector to report this focus area, especially compared to the banking and financial services sector (**39%**). This highlights a critical barrier to AI advancement in the insurance sector: while organizations recognize the need to improve AI resources and maturity, the lack of comprehensive data and model governance frameworks is holding them back. The sector's risk-averse nature amplifies this challenge, as insurers prioritize reducing potential risks and ensuring compliance before fully committing to AI adoption. As a result, trust in AI capabilities has yet to be established. Developing these frameworks will be essential for unlocking progress, enabling the sector to balance innovation with the stringent oversight required to build trust and drive AI maturity forward.

The insurance sector is most likely to use AI currently within IT and security, or marketing and customer service. They also have a unique focus on using AI in sales, currently reported by more in the sector than the global average (**49%** in insurance vs **38%** average).

Of note, there's a stark difference in AI use cases for the insurance sector versus the banking and financial services sector where the insurance sector is more likely to use AI in customer service, research and development, sales and marketing. It seems that insurance is harnessing the power of AI for customer touchpoints, where banking and financial services are placing more focus on operational benefits such as finance. Despite these small wins, overall AI adoption is still slower within the sector than in banking and financial services.

How is AI used?

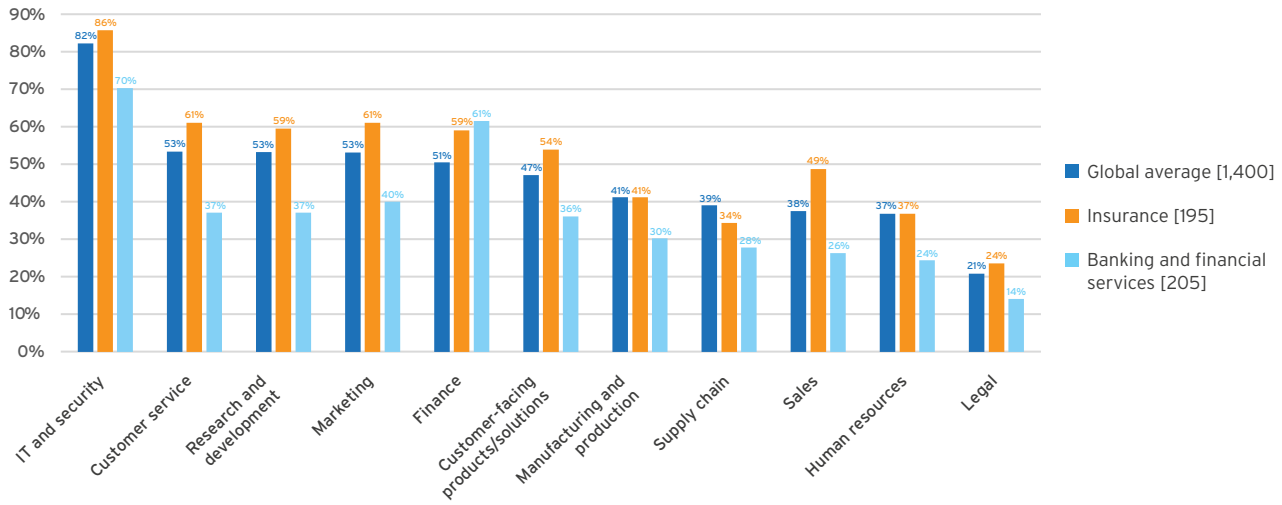


Figure 2. In which of the following areas of your organization is AI being used? Base size shown in chart. Split by banking & financial services and insurance sector data

Trust is the factor hindering AI adoption overall, and is likely the same reason it is being selectively applied in specific areas. The insurance sector is customer-centric with a heavy focus on success based on building trust and maintaining long-term relationships with customers. By leveraging AI, this industry can gain improvements in customer-facing touchpoints through increased personalization, speed and accuracy in decision-making though this is only a small portion of the potential benefits. By having frameworks in place, and closing the skills gap, the sector will find itself better equipped to harness AI's full capabilities, driving revenue growth, competitive advantage, employee productivity and cost reduction (see figure 3).

How important is AI for the following business outcomes in the next 2 years?

Showing data for 'very important' only

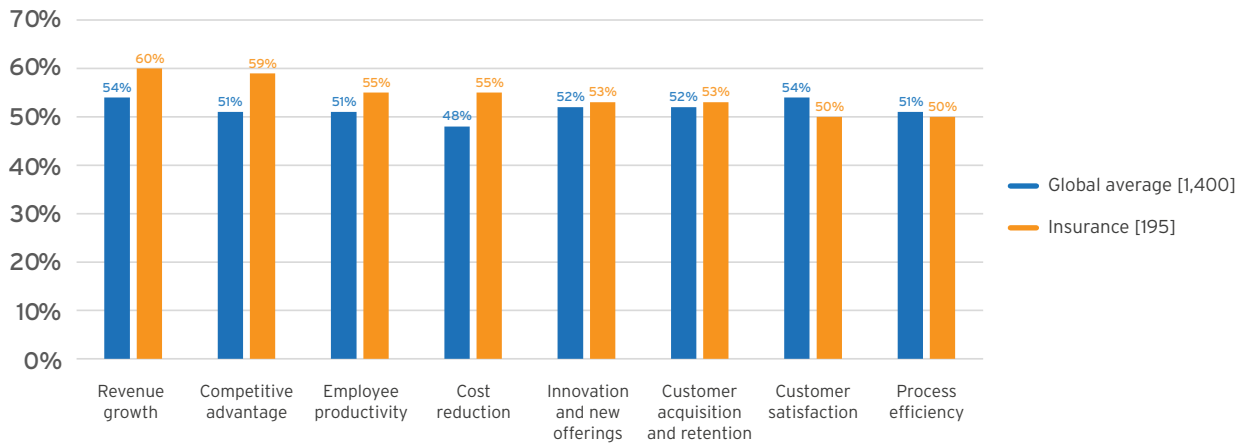
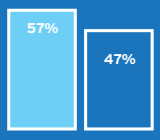


Figure 3. How would you rate the importance of AI in helping your organization achieve the following goals over the next 2 years? Base shown in chart. Split by insurance sector data

50%

organizations in the insurance sector consider AI to be 'very important' in helping achieve their customer satisfaction goals

The insurance sector is more likely than the global average to use AI for streamlining operations



64%

leverage AI to innovate by developing new products or services, with the same proportion using it to reduce costs

Half of organizations in the insurance sector consider AI to be 'very important' in helping achieve their customer satisfaction goals (**50%**), falling behind the global trend (**54%**). This is surprising, given that AI is already being used in the insurance sector to build trust and create personalized experiences for customers, as noted earlier. This suggests that while customer satisfaction is a key driver for AI use in specific applications (like personalized experiences), the insurance sector may view it as a byproduct of other outcomes like cost reduction or operational efficiency. For instance, while a chatbot may handle initial inquiries, much of AI's impact occurs behind the scenes (e.g., speeding up claims approvals or risk assessments). By focusing on these foundational benefits, insurers aim to build stronger, more efficient systems that indirectly enhance customer satisfaction over time.

Operational benefits also play a crucial role in driving AI adoption across industries but the insurance sector, in particular, is more likely than the global average to use AI for streamlining operations (**57%** compared to **47%**). Perhaps this is due to the complex and labor-intensive operations within this sector, making the value added from AI monumental. Additional benefits are highlighted by nearly two-thirds (**64%**) who leverage AI to innovate by developing new products or services, with the same proportion using it to reduce costs. By harnessing AI to improve operational efficiency and deliver innovative products faster than competitors in a globalized market, the sector can strengthen customer loyalty and boost profitability.

Leveraging unstructured data effectively

AI-driven automation is the most important technology to ensure organizational success today within the insurance industry. What's more, they are the most likely sector to report this level of importance, higher than the global average (**23%** and **16%** respectively). The insurance sector relies on manual, process-heavy operations such as claims processing, underwriting, and policy management, and AI-driven automation is critical for streamlining these repetitive tasks, reducing errors, and cutting costs, which are pressing needs today. However, looking to the future, the top predicted technology for organizational success is RAG. The need for a technology that can handle diverse data types and outputs is essential. Therefore, RAG is well-suited for retrieving and synthesizing insights from a diverse data landscape.

This is especially important as just under two in three (**61%**) insurance sector decision-makers find that unstructured data such as text, audio, video etc., will be very important for their organization's success in the next two years. This is higher than the global average (**56%**) and much higher than the banking and financial services industry (**46%**). This is likely due to the diverse nature of the data processed across insurance operations, such as claim forms that contain photos, videos, or sometimes audio recordings. This means unstructured data is foundational for the sector and through growing AI capabilities, the analysis of such data will become streamlined and automated.

On average, **63%** of AI use cases in the insurance industry are leveraging unstructured data, slightly more than the global average (**60%**). With the vast amount of data the industry handles, it makes sense why they are looking for new ways to implement AI into their everyday operations. AI for insurance can simplify complex documents like letters of credit, or bills by extracting important details such as transaction terms, compliance needs or risk factors. This allows organizations in the industry to quickly identify problems and speed up approval processes, cutting down on delays and boosting efficiencies. However, these applications are relatively standardized and may be seen as baseline expectations rather than delivering significant additional value. This is evident when examining how frequently insurance companies report that AI is routinely used to extract value from unstructured data (see figure 4).

How often do you routinely use AI to extract value from unstructured data?

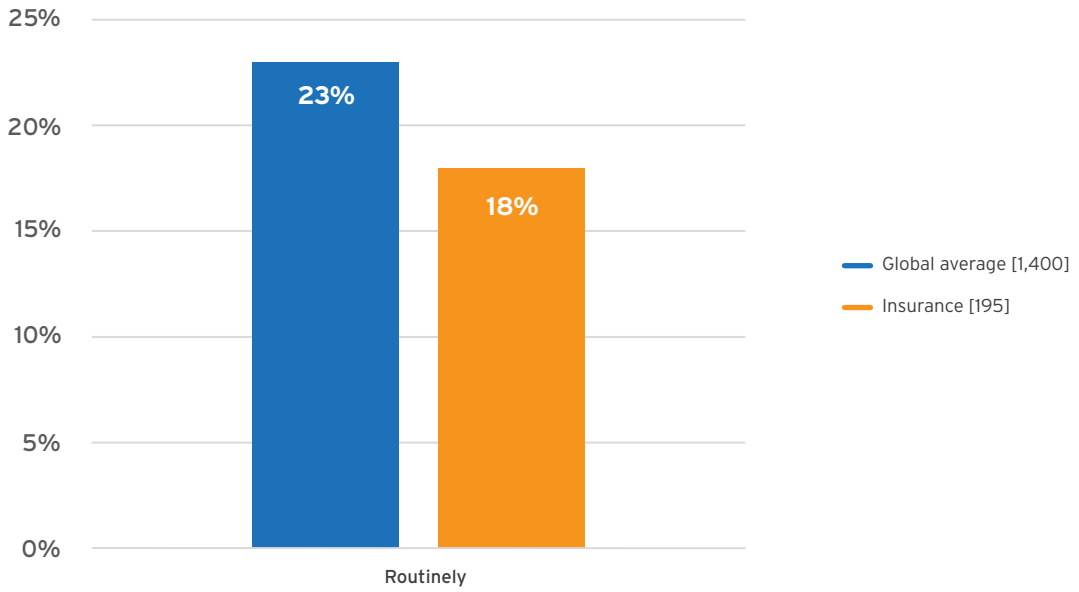


Figure 4. To what extent does your organization use AI to extract value from unstructured data? Base shown in chart.

However, there appears to be a knowledge gap for insurance organizations. AI is helping them automate tasks (**59%** of organizations believe that automating processes is one of the main use cases of AI within their organization), but is yet to fully help them realize additional value. There needs to be a shift in culture, for organizations within this industry to start moving towards more advanced AI use cases.

The challenge may stem from the current inconvenience of working with unstructured data. The insurance sector is the most likely to strongly agree that they need to do more to improve the quality of their unstructured data. There's also an additional need to improve the availability of their unstructured data. This inexperienced approach means there's a lower-than-average integration of unstructured data and AI with relevant business applications (**19%** and **23%** respectively). The future of the insurance industry involves improving and increasing these capabilities. By allowing complex analysis of claim descriptions, customer feedback, medical records, and imagery, insurance providers can unlock deeper insights, automate complex processes, and deliver faster and more accurate decisions.

The insurance industry does have some positive measures in place for handling unstructured data, with many being on-par with or just below the average. For instance

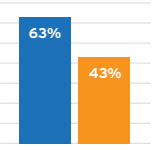
22% feel they're highly effective at protecting, governing and ensuring audit-ready compliance of unstructured data just behind the global trend (**27%**)

23% feel they're highly effective at managing unstructured data at scale using advanced capabilities (**28%** globally)

28% have implemented processes for preparing high-quality unstructured data with significant progress, on par with the global average (**27%**)

25% are consistently effective in making their unstructured data trustworthy (**27%** globally)

21% feel they excel at making unstructured data accessible (**25%** globally)



Lastly, the insurance sector is more likely to do regular data sanitization than the banking and financial services sector (**63%** vs **43%** respectively)

Conclusion:

Organizations in the insurance sector are increasingly leveraging AI to enhance operations, with a particular focus on achieving these efficiencies through technologies like AI automation and RAG. These tools have become vital for streamlining processes and managing the complex demands of the industry.

However, with the growing use of, and reliance on, unstructured data in the insurance sector, and the significant volume of confidential information the sector handles, it's critical to refine processes on how and when unstructured data is leveraged with AI. This includes ensuring data is trustworthy, accessible and well-governed; all areas the industry has started working on but are yet to perfect. What's more, many organizations in this sector recognize the broad benefits of AI and unstructured data but have yet to consistently extract meaningful value from these resources. By implementing stronger management practices and investing in advanced AI training, insurers can significantly enhance their ability to leverage unstructured data. Prioritizing the development of robust processes to prepare, manage, and govern this data will enable organizations to unlock their full potential, driving operational efficiency and fostering greater trust in AI-driven decisions.

By addressing the gaps, insurers can confidently integrate unstructured data into business applications, driving increased employee efficiency and trust. Those that take proactive steps now will be better positioned to capitalize on AI's full potential with unstructured data.

How can Iron Mountain help?

Whether you're at the start of your AI journey or reaching full maturity, Iron Mountain can help you turn your information into insights and further your AI-readiness. Determine what information should be scanned, stored, or defensibly destroyed, by developing a data governance framework. Automate manual processes, enable audit-ready compliance, and make information accessible and useful with Iron Mountain InSight® Digital Experience Platform (DXP). The scalable platform offers comprehensive digital and physical content management, intelligent document processing, workflow automation, and information governance capabilities that seamlessly integrate into your existing environment and support your digital transformation initiatives.

About the Research

Iron Mountain commissioned independent market research specialist Vanson Bourne to conduct this piece of research. The study included surveying 1,400 IT and data decision-makers who have knowledge of or responsibility for AI strategy at their organization. Respondents' organizations had to have 250 employees or more across the following countries: US, UK, France, Germany, India and Australia.

Organizations are from several public and private sectors but there was a strong focus in banking and financial services, insurance, healthcare and life sciences, media and entertainment, the public sector (excluding healthcare) and energy. This summary is based off 195 decision-makers in the insurance sector.

About Vanson Bourne

Vanson Bourne is an independent specialist in market research for the technology sector. Their reputation for robust and credible research-based analysis is founded upon rigorous research principles and their ability to seek the opinions of senior decision-makers across technical and business functions in all business sectors and all major markets. For more information, visit www.vansonbourne.com.

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