

WHITEPAPER

REDEFINE YOUR INSURANCE BUSINESS WITH AGENTIC AI



Adaption to change is key to survival!

The insurance industry is navigating through such a transformational phase using artificial intelligence (AI) capabilities in its core operations, and this adoption rate has surged with the broader usage of generative AI tools by diverse industries. **In a 2024 survey**, 76% of 200 US insurance executives revealed that they had integrated Gen AI into one or more business functions. While the adoption of gen AI is redefining the insurance industry, another recent yet promising advancement has happened: It is Agentic AI!

Agentic AI is revolutionizing insurance operations, strategic decision-making, and customer experience. Agentic AI systems are developed to take autonomous actions and handle operations as independent agents within a system, using real-time data, unlike rule-based, legacy AI systems. The insurance industry is embracing the shift to Agentic AI to address challenges in risk management, claims processing, and customer service.

Insurance providers are also considering leveraging Agentic AI due to an unexpected rise in insurance premiums—for instance, **57% of insurance premiums** in Colorado suddenly grew between 2018 and 2023, making insurers seek more cost-efficient ways to operate over traditional methods.

In this thought paper, I will discuss applications of Agentic AI in the insurance sector and how companies like Datamatics are at the forefront of bringing this transformation with their advanced solutions and accelerators for Insurance providers.

Agentic AI in Insurance Underwriting

Traditionally, underwriting has been time-consuming and heavily relies on underwriter involvement.

A recent report states that 45% of underwriters often struggle to fill the agent and customer expectations and spend over 41% of their time in admin activities, while they devote only 32% to 33% time for essential activities like risk assessment, premium estimations, and book management, and 25% time in sales and agent collaboration. Datamatics has simplified the underwriting process with its next-generation AI-driven Underwriting Solution powered by Generative AI (GenAI) and advanced Agentic AI capabilities.

Our client, a renowned global private healthcare organization, struggled with longer turn-around times and inefficiencies in underwriting. They leveraged Datamatics AI-driven Underwriting Solution and modernized their manual assessments entirely using its advanced capabilities. This solution incorporates AI-powered automation, smart decision-making, and human-in-the-loop (HITL) validation to streamline operations, mitigate risks, and enhance scalability with unprecedented automation, accuracy, and efficiency.

These are the key capabilities of the AI-Powered Underwriting Solution:

- **GenAI-Based Virtual Underwriter (Chat Assistant)** – An intelligent chatbot acts as a virtual underwriter. It interacts with applicants in natural language to gather medical history and lifestyle-related information while adapting to questions based on responses, ensuring accurate data collection, identifying potential medical conditions, and flagging risks for further assessment.
- **AI-Driven Risk Scoring & Decision Engine**– Integrates multiple data sources such as medical histories, recorded claims, past underwriting decisions, and business rules in the rule engine for holistic risk assessment upon identifying fraudulent patterns and behaviors. Further, gives insights into risk and generates a comprehensive risk score with recommendations to include/exclude specific conditions, approval/rejection of claim applications, or escalate to manual underwriters (HITL) for complex scenarios.

- Reasoning with detailed risk assessment summary, ensuring regulatory compliance, and building trust with applicants.
- Low-Code/No-Code (LCNC) Framework for Rapid Customization–Built on an agile OutSystems-powered LCNC platform, enables quick adaptation to fill insurers' needs, reducing deployment time.

Agentic AI for Claims Processing

Automated AI-powered systems can streamline claims processing from the initial stage of claim form submissions till the settlement for insurance companies.

Autonomous AI Agents can assess claims by extracting and analyzing existing data and applying predefined criteria to either approve or deny claims based on damage incidents and past medical histories of an insured, besides detecting inconsistencies or suspicious patterns that may indicate fraud, flagging them for further investigation.

Furthermore, AI agents can aid agents, insured people, and insurance companies with timely claims processing and assistance in a short span.

The Agentic AI tools can also be applied in preventive healthcare to promote care services and provide guidance for insured people to take prescriptive measures based on predictions while enabling insurance companies to get health updates on an insured with tools such as Datamatics Agentic AI-based Gum Health Solution.

This tool is exclusively built for evaluating oral health and helps insurance companies with user engagement as well as accurate claims processing. Datamatics AI Gum Health Solution can enable insured users to self-assess their oral health, offer measures for early detection of gum issues, and connect with dental professionals nearby for consultation.

Likewise, this tool equips insurance providers to capture leads, gain insights useful for claims processing, engage users, and build a healthy community by fostering oral hygiene.

Agentic AI for Personalized Customer Experience

Customers of the day expect hyper-personalized services in this AI-driven world. A [report](#) states that Insurers who offer personalized experiences and tailored products for their policyholder have seen a rise of 81% in customer retention and 89% in customer engagement. To stay competitive, Insurance companies are leveraging Agentic AI to fulfill their business need in creating highly personalized interactions with policyholders by understanding the customer needs and preferences analyzed from individual insured customer data.

That's where the customer experience automation solutions such as KaiAssist, KaiKM, and KaiTone accelerators can enrich customer interactions and take customer satisfaction to a whole new level. For instance, insurance companies can equip their service teams with

- GenAI-enabled **KaiTone** accelerator- to maintain personalized customer engagement, the insurers can use this tool to analyze audio of customer interactions and gain helpful insights from the voice data along with multi-lingual transcription and sentiment analysis, and take appropriate action to improve customer service.
- KaiAssist Accelerator- to automate customer service interaction and individually handle inquiries and policy changes in real time.

These AI-powered Accelerators by Datamatics ensure every policyholder or insured customer gets customized policy recommendations, products, messages, and notifications at the right time, resulting in improved customer retention and customer satisfaction.

Agentic AI for Fraud Mitigation

The advanced Agentic AI algorithms offer a proactive approach to fraud detection by using machine learning to identify fraudulent activities and anomalous patterns. Using consolidated data, Agentic AI utilizes ML algorithms for a deeper analysis to do risk profiling, identify recurring patterns as well as behaviors with high risks, and foresee risks based on comparing previous records with existing ones, further helping in the investigation of flagged claims when needed.

The **AI and Gen AI-powered tools** like Datamatics **KaiVision** Accelerator can help visually recognize images and videos, validate documents, and securely facilitate the customer identification process. Its key capabilities, such as facial recognition and fraud detection, can aid insurers in preventing fraudulent claims by incorporating advanced visual recognition functionalities into their operations.

Agentic AI for Policy Management and Renewals

Managing policies and handling renewals involves numerous touchpoints with customers and more manual effort. Agentic AI automates this process, ensuring smooth and timely renewals by tracking policy expiration dates, offering proactive recommendations to insurers and policyholders, and giving suggestions based on customers' circumstances or market conditions.

Advanced AI tools such as Datamatics **KaiKM** accelerator can allow insurers to understand each policyholder's needs and preferences better by managing insured data, gaining insights, and predicting outcomes from structured and unstructured data. Autonomous AI Agents can resolve and assist policyholders round-the-clock by answering queries related to policy management and coverage adjustments, leading to improved customer retention and better customer experience.

Agentic AI for Cost Optimization

The biggest challenge the insurance industry often faces is meeting customer expectations by offering better pricing than its competitors. Agentic AI can help insurers reduce operational costs and maintain profit margins by avoiding miscalculations and manual errors. Additionally, insurers can use AI predictions to determine the demand for specific insurance products and adjust pricing and offerings, besides remaining competitive while miscalculating excessive overhead. AI agents streamline document verification, damage assessment, and claims approval with direct settlement, reduced processing costs, and more satisfactory service.

Conclusion:

Agentic AI is transforming the insurance industry by providing the means to mitigate risks, drive business growth, and deliver better customer experience.

As a leader in offering innovative solutions, Datamatics has insurance providers covered with cutting-edge AI accelerators, from underwriting and AI-driven claims processing to fraud detection, policy management, preventive care, personalized customer experience and many more.

Are you an Insurer who wants to learn more about our custom solutions and is ready to use AI to lead the industry? Let's talk; **connect with our team today!**

ABOUT THE AUTHOR



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With 20+ years in IT, Prachi excels in driving digital transformation.

At Datamatics, she oversees software solutions and global delivery, ensuring technology strategies align with customer needs.

Prachi has fostered innovation in AI, ML, data, cloud, LCNC and hyperautomation. An engineer with an Executive Program in Applied Finance from IIM Kolkata, she is committed to leveraging emerging technologies for business excellence and innovation.

ABOUT DATAMATICS

Datamatics enables enterprises to go Deep in Digital to boost their productivity, customer experience, and competitive advantage. Datamatics' portfolio spans across three pillars of Digital Technologies, Digital Operations, and Digital Experiences.

It has established products in Intelligent Document Processing, Robotic Process Automation, AI/ML models, Smart Workflows, Business Intelligence, and Automatic Fare Collection.

Datamatics caters to a diverse global clientele across Banking, Financial Services, Insurance, Healthcare, Manufacturing, International Organizations, and Media & Publishing.

The Company has a presence across four continents with significant delivery centers in the USA, India, and the Philippines. To learn more about Datamatics, visit www.datamatics.com

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