



Case Study:

Tripled Contract Win Rate with Personalized Insurance powered by AI

Embracing a Data-Driven Corporate Culture
Empowered by AI at the Frontline



In February 2020, Mitsui Sumitomo Insurance (MSI) revolutionized its sales approach by introducing “MS1 Brain,” an innovative AI mechanism designed to support the efforts of its 38,000 insurance agents across Japan. To efficiently develop and implement this cutting-edge system, MSI partnered with dotData, an industry-leading solution. This strategic collaboration not only streamlined the AI model’s construction but also ensured remarkable accuracy despite a limited number of data scientists. As a direct result, MSI was able to provision customized sales scripts leveraging insightful feature analysis from dotData. The custom scripts led to a remarkable 300% increase in both sales volume and insurance premium prices. Moreover, MSI’s commitment to extending marketing support to its overseas affiliated life insurers has unlocked substantial business advantages beyond its own operations, solidifying its position as an industry leader embracing the power of AI-driven solutions.

“dotData’s features have effectively demonstrated the power of data in sales activities and customer interactions. This realization is fostering a data-driven culture, dramatically advancing the DX of our employees and agents.”

Mitsui Sumitomo Insurance Company, Ltd.
Business Innovation Dept.
Data Science Team
Senior Advisor
Mr. Takashi Matsumura

ABOUT

MITSUI SUMITOMO INSURANCE COMPANY,
LIMITED

Industry: Insurance

Employees: 13,453 (non-consolidated)
21,293 (consolidated)

Established: October 21, 1918

<https://www.ms-ins.com/>

CHALLENGES

- Providing a more personalized insurance customer experience through agents
- Lack of data analysts and insufficient data analysis knowledge due to relying on external parties
- Interpretation of black-boxed AI results and applying them to business processes
- .

MS1 BRAIN: REVOLUTIONIZING INSURANCE AGENT SALES SUPPORT WITH AI

In the highly competitive landscape of non-life insurance companies in Japan, Mitsui Sumitomo Insurance (MSI) stands out as a key player within the MS&AD Insurance Group, boasting the largest market share in the non-life insurance sector. With a wide network of offices throughout Japan and a growing global presence in 42 countries, MSI is committed to driving digital transformation (DX) and leading the industry by embracing cutting-edge technologies.

One of their notable initiatives is MS1 Brain, a pioneering AI-based agent sales support system introduced in February 2020. Integrated as an additional function within the existing MS1 business support system, MS1 Brain revolutionizes the way agents interact with customers by leveraging AI to analyze policy and customer information spanning the previous seven years. The system provides personalized recommendations to agents regarding the most suitable products to propose to specific customers at the right time.

Leading the development of MS1 Brain, Mr. Takashi Matsumura sheds light on the project's background. Recognizing the need to enhance the customer experience through better understanding, MSI sought to move beyond relying solely on the expertise and intuition of their agency sales staff. To deliver a truly personalized experience, a more data-driven and scientific approach was required. This realization led MSI to harness the power of AI for analyzing the vast amount of customer data accumulated over the years.

However, introducing and utilizing AI posed a significant challenge in terms of human resources. While MSI had a substantial number of actuaries responsible for insurance product design and risk analysis, the availability of data scientists to support marketing and sales activities was limited. Consequently, the company relied heavily on external talent, highlighting the pressing need to address this resource gap.

OVERCOMING SKILL SHORTAGES AND AVOIDING BLACK BOX INTERPRETATION

Addressing the challenges of limited human resources and the black box nature of AI, MSI sought a solution that could alleviate skill shortages and provide transparent results. While efforts were made to train in-house data scientists, the time required to develop highly skilled personnel was a constraint. Mr. Masashi Wajiki, head of the data science team, acknowledges the need for a

balanced approach, “Relying too heavily on external talent would pose sustainability issues, as skills may not remain within the company after project completion.”

To bridge this gap, MSI adopted dotData, envisioning it as a solution that could automate AI model design and construction, thereby augmenting their workforce and addressing skill shortages. The company was particularly drawn to dotData’s unique capability to automatically generate feature values and present them in a human-readable format. Mr. Shuhei Kuwata, a data scientist at MSI, explains, “In our AI utilization, we emphasize that humans should be able to comprehend and interpret the model, as AI is positioned as a tool to support people.” dotData’s revolutionary feature of visualizing the number of features and processes stood out, allowing humans to grasp the inner workings of the model.

Unlike typical deep learning models that are black boxed and limit human intervention, dotData’s user-friendly interface enables troubleshooting and fine-tuning accuracy with ease. This characteristic aligns with MSI’s approach, where AI serves as a tool to empower individuals rather than replace them. By offering intuitive model design through GUI operations, dotData strikes a balance between accuracy and operability, ensuring long-term maintainability and facilitating collaboration between AI and human expertise.

TRIPLING SALES AND PREMIUMS THROUGH DATA-DRIVEN FEATURES

To validate the capabilities of dotData, MSI collaborated directly with dotData, Inc. from the United States to construct a feature and AI model for a trial implementation. A comparison was then conducted with models developed using existing methods. The results demonstrated superior accuracy and the ability to uncover various customer behavior patterns as feature values. With these promising outcomes, dotData was officially adopted as the AI engine for MS1 Brain, leading to its release in February 2020.

The introduction of MS1 Brain had an immediate impact on sales activities, transforming the efficiency and effectiveness of the process. By incorporating the system’s recommendations, which went beyond relying solely on sales representatives’ experience and intuition, sales activities became more efficient, and a higher level of personalization was achieved in customer interactions.

RESULTS

- MS1 Brain proposed insurance products based on features, which resulted in a 3-fold increase in sales volume and premiums per unit
- Developed business not limited to the company itself, such as through collaboration with overseas partners
- In-house DX greatly accelerated by dotData’s “AI that shows the details of the results”

LEARN MORE

<https://dotdata.com>

<https://dotdata.com/products>



Mr. Wajiki highlights the system’s ability to score customers with a higher potential to purchase life and fire insurance policies, enabling agents to focus their efforts on these prospects. This targeted approach improved the efficiency of agent activities and resulted in proposals that satisfied customers to a greater extent. Additionally, by identifying customers likely to cancel their policies or switch to other companies, proactive measures could be taken to deter cancellations and retain customers.



MS1 Brain

dotData’s unique feature of visualizing the amount of features proved highly valuable in decision-making. For instance, it became evident that customers with annual premiums of 65,000 yen or more were more inclined to add special features related to driver’s licenses during policy renewal. By quantifying previously subjective factors into actionable numerical values, concrete “talk scripts” were developed for salespeople to communicate with customers. This approach resulted in a significant increase in cross-selling and upselling, leading to two to three times higher sales and premium prices compared to the previous methods.

EXPANDING THE IMPACT: DOTDATA'S INFLUENCE BEYOND MS1 BRAIN

Building on the success of dotData implementation in MS1 Brain, MSI is now extending its use to various other operational areas. For instance, dotData was employed to analyze factors influencing insurance cancellations for an overseas life insurance partner, leading to the identification of key variables impacting policy persistency rates. The results not only refined incentive settings but also provided valuable insights praised by the partner company's CEO.

In the realm of automobile insurance, dotData's analysis of policy and customer data enabled the prediction of when customers would purchase new cars. This information was shared with MSI's partner automobile dealers, fostering initiatives that generate fresh value through the intersection of insurance and data. These endeavors have yielded remarkable outcomes, driving the company's progress in leveraging data for strategic decision-making.

The realization of data-driven effectiveness in sales activities and customer interactions has ignited a wave of digital transformation across MSI. The successful utilization of MS1 Brain and other digital tools has not only raised awareness of DX among employees and agents but also fostered a strong appetite for incorporating the latest tools. As the company receives an increasing number of consultations seeking to leverage dotData's strength in automatically generating and extracting features, it aims to nurture a data-driven culture within the organization.

With dotData as a powerful ally, MSI aims to gain a competitive edge by realizing management sophistication through AI ahead of its rivals. As the only product capable of discovering business-relevant insights from data without the need for specialized research skills, dotData is poised to accelerate innovation across numerous companies. The widespread adoption of dotData within MSI is seen as a key driver for achieving these objectives.

About dotData

dotData is the first and only company focused on full-cycle data science automation. Fortune 500 organizations around the world use dotData to accelerate their ML and AI projects and deliver higher business value. dotData's automated data science platform speeds time to value by accelerating, democratizing, augmenting and operationalizing the entire data science process, from raw business data through data and feature engineering to machine learning in production. With solutions designed to cater to the needs of both data scientists as well as citizen data scientists, dotData provides unmatched value across the entire organization.

dotData's unique AI-powered feature engineering delivers actionable business insights from relational, transactional, temporal, geo-locational, and text data. dotData has been recognized as a leader by Forrester in the 2019 New Wave for AutoML platforms. dotData has also been recognized as the "best machine learning platform" for 2019 by the AI breakthrough awards and was named an "emerging vendor to watch" by CRN in the big data space. For more information, visit www.dotdata.com, and join the conversation on Twitter and LinkedIn.

About Mitsui Sumitomo Insurance Company, Limited

Created through the merger of Mitsui Marine & Fire Insurance Company, Limited, and Sumitomo Marine & Fire Insurance Company, Limited, in October 2001. The company plays a central role in the MS&AD Insurance Group, an insurance and financial group, and is engaged in a wide range of businesses, mainly non-life insurance business in Japan, life insurance business, and financial services. It also has offices in 42 countries around the world, including Europe, North America, and Asia, and is expanding its business domain.