



A Global Insurance Provider Accelerates AI-Driven Insurance Innovation with Automated Data Quality

A global provider of insurance, reinsurance, and mortgage insurance solutions, this Bermuda-based company operates across key markets including the United States, Canada, Europe, Australia, and Asia. Specializing in complex and specialty risk lines, the organization offers tailored solutions across diverse geographies and industries, combining underwriting expertise with a strong focus on data-driven decision-making.

Customer Success Story

www.dqlabs.ai

How the Company Leverages Data for **Business Operations**

The organization has embedded data and AI at the core of its operations to drive efficiency, accuracy, and innovation across insurance workflows:

- **Predictive Modeling:** Utilizes 25+ predictive models across property & casualty and mortgage lines to enhance forecasting and pricing accuracy.
- **AI-Driven Underwriting:** Leverages machine learning to analyze large datasets and enable faster, more accurate risk assessments and underwriting decisions.
- **Automated Claims Processing:** Applies AI to streamline claims workflows—from intake to settlement—automatically categorizing and prioritizing cases based on complexity and fraud risk.
- **Advanced Risk Management:** Uses predictive analytics to monitor emerging risks by analyzing data from weather patterns, market trends, and economic indicators.
- **Fraud Detection:** Implements AI to detect anomalies in claims and customer behavior, enabling proactive investigation and reducing fraud-related losses.
- **Loss Prevention Analytics:** Identifies high-risk clients and segments using historical and market data, allowing the company to take preventive measures and tailor risk strategies.
- **Process Automation for Brokers and Customers:** Enhances customer & broker experiences by automating manual processes and enabling faster, more efficient service delivery.
- **Strategic Partnerships:** Collaborates with cyber risk specialist Coalition to enhance data capabilities and expand insights in emerging risk areas.



Challenges

As the company increasingly adopts AI and predictive analytics across its underwriting, claims processing, and risk management workflows, the need for high-quality, reliable data becomes critical. However, several data-related challenges hindered the effectiveness of these initiatives:

- **Incomplete or Inaccurate Data Inputs:** Predictive models depended on comprehensive and accurate data. Gaps or errors in policyholder details, claims history, or risk attributes led to flawed insights and suboptimal decision-making.
- **Data Silos and Inconsistencies:** With operations spanning multiple lines of business and geographies, the company faced challenges in consolidating data across systems and teams. This fragmentation resulted in duplicate records, inconsistent formats, and limited visibility.
- **Timeliness of Data for Real-Time Analytics:** Many AI-driven processes, such as fraud detection or loss forecasting, required up-to-date information. Delays or lags in data availability reduced model performance and slowed response times.
- **Schema Drift in Third-Party Data Sources:** Partnerships, such as with external cyber specialists or data providers, introduced frequent changes in data structure. Without robust monitoring, these changes disrupted data pipelines and impacted downstream analytics.
- **Lack of Data Consistency and Trust Across Systems:** Discrepancies in data across platforms—such as mismatched claim statuses or underwriting results—created confusion, affected operational decisions, and eroded confidence in the data.
- **Lack of Business-Centric DQ Framework:** There was no structured way to define, track, and resolve data quality issues based on business measures.
- **Manual Issue Resolution:** Data issues identified during monitoring had to be manually logged and tracked, leading to delays and a lack of accountability.

Solution

DQLabs partnered with the client to deliver a comprehensive data quality solution that aligned with their business priorities and technical landscape.

Business-Defined DQ Measures

DQLabs enabled the company to define rules and measures at the asset and attribute level, allowing for greater precision and relevance.

Automated Issue Management with JIRA Integration

Data quality alerts are now converted into tickets in JIRA with enriched metadata and routed dynamically based on issue type and domain. Each issue is prioritized based on severity and governed via SLA-based workflows.

Collibra Integration

DQLabs seamlessly integrated with Collibra, enabling metadata and data quality metrics to flow between both platforms. This ensured data stewards have up-to-date governance and quality insights within Collibra's unified environment.

Enhanced Exception Handling

The DQLabs platform supported flagging of acceptable outliers as “valid exceptions,” preventing repetitive false positives.

Advanced Rule Builder

Business users can now create complex rules comparing multiple columns and conditions—all through a visual, no-code interface.

Improved UX and Navigation

Platform navigation was streamlined, reducing the number of clicks to reach key features like logs, jobs, and active alerts.

Results and Impact

DQLabs didn't just improve how the company manages data quality—it directly enhanced their ability to operate more efficiently, reduce risk, and serve customers and brokers better across its insurance, reinsurance, and mortgage operations.

✓ **Greater Underwriting Accuracy and Speed**

With reliable data inputs and faster resolution of quality issues, AI-driven underwriting models now operate with higher confidence—enabling quicker, more accurate risk assessments and pricing decisions across property & casualty and mortgage lines. This resulted in a 25% reduction in underwriting cycle time and an 18% improvement in pricing precision.

✓ **Improved Claims Processing Efficiency**

Automated issue closure and better exception handling ensured that downstream claims automation workflows ran smoothly—reducing manual intervention by 30% and improving straight-through processing rates by 22%.

✓ **Faster Response to Emerging Risks**

DQLabs' real-time monitoring and dynamic issue routing help maintain high-quality data feeds for predictive risk analytics—enabling quicker response to signals from weather data, economic shifts, or market movements.

✓ **Reduced Fraud Risk**

Cleaner, validated datasets strengthen the company's AI-based fraud detection systems, allowing them to detect anomalies more precisely and reduce false positives that previously consumed investigation bandwidth.

✓ **Stronger Regulatory and Compliance Posture**

With SLA-based resolution workflows, audit trails, and clear rule validation, the company achieved 100% audit readiness on tracked data quality rules and accelerated regulatory reporting timelines by 40%, especially critical for mortgage and reinsurance data.

✓ **Empowered Data Teams Across the Business**

With intuitive rule builders and actionable insights, business users—including analysts and stewards—could build and manage data quality rules independently, tripling the volume of self-service rule creation and reducing engineering dependency by 40%.



About DQLabs

DQLabs is an Agentic AI Data Observability & Data Quality Platform that enables organizations to observe, measure, discover, and remediate the data that matters. With an automation-first approach and self-learning capabilities, the DQLabs platform harnesses the combined power of Data Observability, Data Quality, and Data Discovery to enable data producers, consumers, and leaders to turn data into action faster, easier, and more collaboratively.

Book a Demo



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