Dutch supervisors on AI at insurance companies

Release note

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On 25 July 2019, the Dutch supervisors AFM and DNB published two articles discussing the use of **artificial intelligence** (AI) in the Dutch financial sector and specifically among **Dutch insurers**. Both publications encourage broader public discussion of AI in insurance, and we expect more to come on this topic in the coming months.

General principles for the use of artificial intelligence in the financial sector

This article is a discussion paper written by DNB, and contains a preliminary view on **regulation** of the use of AI in the financial sector. DNB invites market participants to send comments to ai@dnb.nl before **18 October 2019**. The comments will be used in a dialogue with the Dutch financial sector over the coming months.

The key aspects are captured in six groups, collectively known as **'SAFEST'**:

Soundness
1) Compliance with regulations embedded in design
2) Mitigation of AI-related financial risks
3) Mitigation of model risk
4) Quality of data
5) Control over the correct functioning of outsourced applications

Accountability
6) Accountability at the board of directors level
7) AI part of risk management and audit framework
8) External stakeholders

Fairness
9) Fair functioning of AI
10) Review and monitoring for unintentional bias

Ethics
11) Development of an ethical code for AI
12) Alignment with legal obligations, values and principles

Skills
13) Knowledgeable senior management
14) Trainings for risk management and compliance
15) Overall awareness and understanding within organisation

Transparency
16) Transparent about adoption of and policies on AI
17) Traceable and explainable outcomes

Artificial intelligence in the insurance sector: An exploration

In this article, written jointly by the AFM and DNB, the supervisors state that the current biggest AI applications at insurers are **machine learning** methods applied to fraud detection and underwriting processes. In most cases, insurers are developing narrow AI applications focused on specific tasks, and machine learning is mostly used on an ad hoc basis to support traditional models. The current trend foresees increased developments in the domains of pricing and acceptance, especially within the casualty and income segments.

The article distinguishes between three categories from the regulatory perspective:

Embedding AI
1) Development of AI policy at the board of directors level
2) Clear internal communication and embedding of the policy at all levels of the organisation

Technical aspects of AI
3) Use of representative and validated training data
4) Attention for statistical risks and model complexity
5) Explainable outcomes (also in the view of the General Data Protection Regulation [GDPR])
6) Avoidance of discriminatory biases
7) Control over outsourced applications
8) Continuous model validation

AI and consumer
9) AI in decision environments must stimulate consumer to make decisions that benefit their financial well-being
10) Acceptable from a societal point of view

Special attention in the article goes to the potential AI influence on **solidarity** and insurability.

How Milliman can help

Milliman has a depth of experience and expertise in the insurance industry. We have consultants with strong quantitative skills and in-depth knowledge of machine learning algorithms as well as underwriting and other processes at insurance companies. We have decades of experience helping insurance companies in designing and implementing models in line with regulatory requirements.

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