Design of Insurance Contract Model for Lapse Risk Prediction based on Bigdata and Artificial Intelligence.

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- **Abstract:** Small and medium sized insurance companies are reducing the need for Big Data analytics mixed AI Tech., but they are hesitant to adopt Big Data analytics because there are no successful cases. The domestic financial sector has a large and diverse amount of internal data, with most transactions occurring in the online environment. Accordingly, Big Data activation level is higher than that of other industries. This means that the potential value and utilization of data analysis is very high. Accordingly, this study seeks to develop a model that predicts the effective lapse risk of maintenance contracts. We conducted an analysis to identify the effective probability of each contract and the effective causes for defense. In addition, the predictive model was developed using supervised machine learning, and the effective predictive model was updated by applying unsupervised reinforced learning. By use of Machine Learning, Reinforcement Learning and Clustering Analysis, we could perform an experiment on lapse cause mapping to get significant lapse causes.

- **Keywords:** Big Data; Insurance Contract Lapse; Machine Learning; Platform Development; Reinforcement Learning; Risk Prediction