

Underwriting with PredictSense

i Introduction

Insurance as an industry has evolved tremendously over the last few decades where technological innovation has been at the forefront of the transformation. Captive Insurance is one of the key developments which has evolved as part of the evolutionary trends within the industry. The underwriting of risks which is an actuarial function is one of the most critical functions within captive insurance and innovation within this critical function will help revolutionize the industry driving efficiencies

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u Customer

A leading captive insurance company was looking to optimize its actuary activities by testing the PredictSense platform to fast track the model building and validation process within its underwriting function for Captive Fire insurance

r Requirement

The customer wanted to leverage the PredictSense platform to optimize the actuary function to optimize the overall processes of issuance and claim processing of fire related insurance



Challenges

- ▶ **Data Sets** – Huge data sets need to be cleansed with missing data being one of the key challenges to be addressed
- ▶ **Correlation** – Considering the various data elements available establishing the correlation between the various factors becomes a challenge
- ▶ **Model development and validation** – Development and testing of the models to check is a critical activity which the actuary performs, and it consumes ~ 50 – 60% of their time



Solution

- ▶ Focusing on the challenges and the underwriting functions technicalities, Winjit used their PredictSense platform to train the available dataset to understand the correlation between multiple data elements.
- ▶ The underwriter can choose to apply multiple statistical techniques which are packaged within PredictSense which can train based on the dataset available
- ▶ New Data points if added at a later stage could be seamlessly integrated into the data training exercise to learn and refine the solution



Benefits

The use of PredictSense for addressing the challenges had the following benefits:

- ▶ Increases the productivity of actuaries by saving up to ~50 – 60% of their time spent on data modelling and cleansing activities

- ▶ Parallel testing of algorithms or models becomes possible with the PredictSense platform
- ▶ Optimizing & maintaining the models becomes easier as models can be trained continuously with addition of new elements



Achievements

Our focused solution around Captive Fire Insurance focused on implementing the PredictSense learnings and achieve the following:

- ▶ **Ease of operation** – The solution built was intuitive for the customer, where issuance of the policy and claim processing was simplified and parameterised
- ▶ **Targeted premium calculations** – Since the insurance was parameterised the insurance premium calculation was accurate with a ~ <5% margin for error using the PredictSense platform. With more data made available the accuracy will further improve
- ▶ **Settlement Process seamless** – The claim process is parametric helping reduce the claim processing complexity making it much more smoother and cheaper



Conclusion

PredictSense as a solution learns from the underlying data and is able to train with multiple statistical models in parallel helping do the validation of those models for the actuary and allows them to choose the one which is fit for purpose

Winjit Technologies Pvt. Ltd. is India's leading provider of innovative engineering solutions. Since its inception in 2004, Winjit has built and expanded its expertise in latest trending technologies including Internet of Thing, Artificial Intelligence & Machine Learning, Fintech Solutions, Product engineering and Digital publishing. Winjit provides end-to-end solutions from conceptualization and optimization to providing real-time solutions by developing software systems for any business in these fortes. Over the past decade, Winjit has provided innovative technology and engineering solutions that has resulted in world-class recognition and long-standing customers.



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