

HOW ARTIFICIAL INTELLIGENCE

LED TO A 40% REDUCTION IN RESPONSE

TIME FOR MORTGAGE BROKERS

INTRODUCTION

In any professional services organisation that is driven by mass scale business leads, assigning a lead from a potential customer to the most matching knowledge worker is an ongoing challenge. Success of the business depends heavily on how quickly and insightfully a lead is handed over to the person, with best matching experience and capability, to handle that customer's unique situation.

THE PROBLEM

iTelaSoft has been working in the real estate mortgage domain for many years with multiple customers. Mortgage broker companies receive leads for home loans from multiple channels. These leads are directed to a pool of brokers in the company to serve each customer. Characteristics of each lead depends on the personnel circumstances of the customer. This assignment is usually done either by manual inspection by a "senior broker" (manager) or some unstructured method.

Those traditional methods cause multiple issues including,

Lengthy customer wait-times during the "warm lead" phase, and eventually losing the customer.

Less than satisfactory matchmaking of the lead and broker, often with experience and speciality mismatch. This leads into poor customer satisfaction.

Slower workflow, reducing the optimal usage of broker pool.

Addressing performance issues

High cost of expert workers and use of them in repetitive, mundane tasks.

Above factors result in lower-than-average performance of the broker team, and eventually hurting the revenue and growth of business.

CHALLENGE

iTelaSoft engaged in building a CRM platform which also provided a solution for the above-mentioned problem. Our early assessment indicated that, quick engagement of an intelligent activity (usually by an experienced senior broker) and the thought process plays a major role in accelerating the flow by assigning the right broker for a given lead. Our approach was to learn and mimic this thought process by an artificial decision model.

iTelaSoft created a decisioning engine for analysing the nature of a new lead and automatically assign to a matching broker. The decisioning model considered many parameters both representing the characteristics of the new lead, as well as characteristics plus behaviour of brokers.

Once the model was trained with enough real-world experiences, the decisioning engine was able to automatically and quickly locate an appropriate mortgage broker for a lead, almost in real time. It was like a subject matter expert constantly watching the lead pipeline and picking the best broker to deal with the lead!

THE IMPACT

With the help of Automated Lead Distribution System, multiple mortgage broker businesses were able to make notable positive changes in their operations.



Average first response time to a potential customer was reduced by 40%

Over 30% increase in number of leads handled by a broker.

Significant reduction of cross allocated leads and opportunities missed in the middle of workflow.

Reduced over allocation and better use of the broker pool.

UNDER THE HOOD

In technical terms, core part of the decision engine was based on a multi-class classifier. iTelaSoft used its own "Auto-Learning Framework" to accelerate the implementation time by automatically analyse data, and infer the best machine learning algorithm, plus fine tuning.

Practically, a problem like this is not solvable only using a machine learning model trained with past experiences. There are other real time parameters to consider such as a broker being not available or overloaded at a given time. So, the decisioning engine contained a rule-based decision tree in addition to the pre-trained model.

WHERE ELSE IS THIS APPLICABLE?

Overall, the same solution can be applied to any use case, where a particular scenario should be categorized, and handed over to someone for execution. Some examples are, support case triaging, referral management, assessment marking, claims handling etc.

It is all about training a system with human expertise in a repetitive activity and combining with real world rules to make quick decisions.

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