PREDICTIVE ANALYTICS AND THE COMBAT OF FRAUD

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• Why am I here?

• Fraud – impact on the industry
Three things you will need to solve most problems

- Curiosity
- Imagination / Commerciality
- Data
NO CLAIMS DISCOUNT

• Customer service

• Is it easy to predict?

• Process
BROKERS

• Are all Brokers equal?

• Entrepreneurs

• 80 / 20 rule

• Understand the issue and do something about it!
Do you really understand who you are about to lend money too?

More importantly do you know who is least likely to pay?

Use your data

What happened when we modelled
PAYMENT (2)

Results

We had four types of customer

- Do not lend
- Bigger Deposit
- Carry on as is
- No Deposit
Results

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Completing this exercise we ended up with more customers, less Bad Debt, and more premium being financed.
Predicting who to lend to is clearly only part of the problem

• To truly understand you also need to model default

• What happened when we modelled

Cancel quickly

Follow normal process
• The model has a relatively high strength (181%).
• The model has a Gini coefficient of 0.596
• Over 60% of fraudulent claims are contained in the 20% of exposure data
• We were able to fit a multi-factor model that predicted claims fraud well
• This is deployed along side our normal neural tool.
• This was the first iteration we believe it can be improved significantly
We found an interesting factor with mileage
Garaging has similar impact on fraud risk
The following segments have a lower propensity for fraudulent claims
  - Customers with risk address in Scotland
  - Low ABI groups
  - 4x4 Vehicles
  - Drivers who include cover for commuting
Dishonest policyholders increase the cost for the masses

Insurance is expensive

Misrepresent

Costs go up

Premiums seen as unfair

People cheat system

WHAT HAPPENS IF YOU DON’T FIGHT FRAUD

(TESCO Underwriting Limited)
Two Types of Fraud

Act
- Accidental Misrepresentation
- Deliberate Misrepresentation

Remedy
- Premium
- Unacceptable
- Cancellation
- Void

Lifecycle
- Amber flag for claims
- Renewal behaviour
- Certificate
- Stop them getting through again
THE ULTIMATE TARGET

Underwriting approach

- Screen
- Corroborate
- Action
- Refine
- Track performance

Considerations

A. UW & pricing is first line of defence
   - Predict who you don’t want and screen them out.

B. Use industry or commercially available data to corroborate key factors

C. No action / Additional Premium / Void or Cancel
   - Ensure follow up & links with claims

D. Management Information is key
   - Track, analyse, predict

E. Use insight to refine approach
   - This is a war not a battle you need to win the battle many times to win the war
CONCLUSIONS

• The innovation in Fraud is amazing. Doing something once isn’t going to work, you need to evolve

• Ultimately it comes back to curiosity, imagination and data.

• In my experience in insurance people seek out new data and don’t exploit what they already have.

• People don’t think about the problems properly and design solutions for the minority not majority

• The point of today’s discussion was not to tell you the answers but to hopefully get you thinking.....as an audience you are well equipped to do that
Q&A’s

Thank you.

Questions?...