

Business Summary Report: Predictive Insights for Collections Strategy

1. Summary of Predictive Insights

Our predictive model identified several customer segments at elevated risk of credit card delinquency. Key risk indicators include high credit utilization, missed payments, and elevated debt-to-income ratios. These insights can help prioritize which customers may benefit most from early outreach or financial support strategies.

Key Insights Summary Table:

Key Insight	Customer Segment	Influencing Variables	Potential Impact
High credit utilization correlates with increased delinquency risk.	Customers with >50% utilization	Credit Utilization, Missed Payments	Consider lowering credit limits or offering usage monitoring tools.
Young customers with missed payments are high risk.	Under 30, 2+ missed payments	Age, Payment History	Proactive outreach with tailored financial education or hardship support.
High DTI is associated with higher default rates.	DTI > 0.5	Debt-to-Income Ratio	Debt restructuring support or repayment plan options.

2. Recommendation Framework

Restated Insight:

Customers under 30 with two or more missed payments have a significantly higher likelihood of delinquency.

Proposed Recommendation:

Launch a 6-week pilot outreach campaign targeting this segment with proactive SMS and email messaging. The goal is to offer tailored payment plans or financial counselling support before accounts reach 30+ days delinquent.

Justification and Business Rationale:

- **Specific:** Focused on a clearly defined, high-risk group.
- **Measurable:** Target a 10–15% reduction in delinquency within the pilot group.
- **Actionable:** Uses existing communication infrastructure.

- Relevant: Aligns with Geldium's goals to reduce credit risk and improve customer outcomes.
- Time-bound: Designed as a time-limited pilot with measurable outcomes.

3. Ethical and Responsible AI Considerations

The model was evaluated for fairness using multiple performance metrics across age and income groups. No disproportionate flagging of protected segments was observed.

- Bias: We tested for overrepresentation in delinquency predictions and found a balanced outcome across customer demographics.
- Explainability: The model uses logistic regression, which allows clear explanation of how key variables influence predictions.
- Responsible use: The recommendation is focused on early, supportive interventions rather than punitive action, reinforcing fairness and customer care principles.