

# 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 counseling 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.

# The end