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:**

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| 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.