Business Summary Report: Predictive Insights for Collections Strategy

# 1. Summary of Predictive Insights

Briefly restate your model’s findings from Task 2. Focus on high-risk segments, key predictors of delinquency (e.g., missed payments, credit utilization), and any meaningful patterns the Collections team should be aware of.  
  
Tip: Use 2–3 bullet points or short paragraphs. Refer to the dataset and insights you uncovered.

Optional: Include a Key Insights Summary Table (you may create this in Excel or insert manually).

| Key Insight | Customer Segment | Influencing Variables | Potential Impact |
| --- | --- | --- | --- |
| High risk with no missed payments | Low-payment-history customers | Credit Utilization, Credit Score | Flag for early intervention using non-payment indicators |
| New customers with high utilization are more delinquent | Recently onboarded customers (<6 months tenure) | Account Tenure, Credit Utilization, Debt Ratio | Introduce onboarding risk checks and targeted education campaigns |
| Predictive power from behavior trends | All segments with consistent late/missed payments | Missed Payments (Months 1–6) | Use behavior-based scoring to prioritize collection and reminders |

# 2. Recommendation Framework

Based on one of your model’s insights, outline your recommended intervention. Your recommendation should follow a SMART approach (Specific, Measurable, Actionable, Relevant, Time-bound). Use the following subheadings to guide your structure:

* Restated Insight: Customers with short account tenure (less than 6 months) and high credit utilization (>70%) show a significantly higher risk of becoming delinquent, even if they have no history of missed payments.
* Proposed Recommendation: Implement a proactive financial wellness campaign targeted at new customers with high utilization to reduce early-stage delinquency.
* Specific: Identify all new customers (account tenure < 6 months) with credit utilization over 70% and send them personalized financial advice and repayment planning support within the first 90 days.
* Measurable: Track the percentage of customers in this segment who avoid delinquency over a 3-month period post-intervention, aiming for a 20% reduction in delinquency rate compared to historical data.
* Actionable: Leverage existing CRM and communications tools to segment, flag, and message customers based on account age and utilization data. Utilize automated email, SMS, or app notifications.
* Relevant: This aligns with Geldium’s strategic goal to minimize early-stage loan defaults and improve customer retention through targeted risk-based interventions.
* Time-bound: Launch the intervention within the next 30 days, monitor outcomes for 3 months, and assess program impact by the end of the quarter.
* Justification and Business Rationale: Early intervention with high-risk new customers can prevent delinquency before it occurs, reducing write-offs and operational costs for collections. Proactively engaging this segment demonstrates customer care and builds long-term loyalty, while also supporting the financial health of new borrowers during a critical phase of their credit lifecycle.

# 3. Ethical and Responsible AI Considerations

* The delinquency prediction model was developed with fairness, transparency, and responsible AI use in mind. Potential bias is a key concern—particularly for vulnerable groups like unemployed or low-income customers who may be unfairly flagged as high-risk. To address this, fairness checks and subgroup analysis are recommended. The chosen Random Forest model offers explainability through feature importance, enabling clear communication of why a customer is predicted to be at risk. The proposed recommendation focuses on proactive financial education and early intervention, which supports responsible financial decision-making rather than punitive action. Transparency is maintained through full documentation of model logic, while accountability is ensured by keeping human oversight in the loop. Customer data is used responsibly, with strict adherence to data privacy regulations. Overall, the model and recommendation aim to balance accuracy and fairness while supporting ethical business practices that prioritize customer trust and financial well-being..