**Business Summary Report: Predictive Insights for Collections Strategy**

**1. Summary of Predictive Insights**

Our analysis identified key indicators of customer delinquency based on Geldium’s historical data. These predictors should guide the Collections team in targeting the right customer segments for early intervention.

* **High Credit Utilization (>70%)** is a strong predictor of delinquency. Customers using most of their credit limits are likely under financial pressure.
* **Missed Payments in the Past 12 Months** are the most reliable signal of future default, highlighting the importance of payment consistency.
* **Debt-to-Income Ratio >36%** signals a limited ability to absorb financial shocks, especially when combined with other risk factors like short credit history or frequent credit inquiries.

**Key Insights Summary Table**

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| **Key Insight** | **Customer Segment** | **Influencing Variables** | **Potential Impact** |
| High credit utilization linked to risk | Mid- to high-income borrowers with high spending | Credit utilization rate, income, credit score decline | Early outreach and spending alerts can prevent delinquency |
| Missed payments predict future defaults | Customers with 2+ missed payments in 12 months | Payment history, credit score trend | Segment for repayment restructuring or stricter follow-up |
| New credit users are higher risk | Customers with accounts <2 years old | Credit age, credit inquiries, employment stability | Provide financial guidance or monitoring support |

**2. Recommendation Framework**

**• Restated Insight:**

Customers with credit utilization over 70% are significantly more likely to become delinquent.

**• Proposed Recommendation:**

Launch a proactive intervention program offering financial coaching and credit optimization advice to customers with high credit utilization.

**• SMART Breakdown:**

* **Specific:**  
  Identify and target customers with credit utilization >70%.
* **Measurable:**  
  Aim to reduce delinquency within this group by **15% over the next 6 months**.
* **Actionable:**  
  Provide tailored financial support, such as budgeting tools, alerts for high utilization, and access to flexible repayment plans.
* **Relevant:**  
  Directly addresses a high-impact risk group, improving repayment rates and protecting portfolio health.
* **Time-bound:**  
  Roll out program by **Q3 2025**, monitor effectiveness monthly, and evaluate outcomes by **end of Q4 2025**.

**• Justification and Business Rationale:**

This group is clearly identified in the model as high-risk but still financially active. Providing timely, supportive interventions aligns with Geldium’s goals of minimizing losses while promoting responsible financial habits among its customer bases.

**3. Ethical and Responsible AI Considerations**

* **Bias and Fairness Risks:**  
  The model may inadvertently penalize customers from lower-income or high-expense regions due to higher utilization ratios. Care must be taken to ensure that these patterns don’t reinforce economic inequalities.
* **Explainability:**  
  We prioritize model transparency by using interpretable features (e.g., payment history, utilization). Customers and non-technical teams can easily understand why a customer was flagged as high-risk.
* **Promoting Responsible Financial Behaviour:**  
  Recommendations aim to support—not punish—customers by offering tools and guidance, reducing financial harm.
* **Ethical Principles Considered:**  
  We emphasized **transparency**, **fairness**, and **data privacy** throughout the modelling and recommendation process. We avoided using sensitive attributes like race, age, or ZIP code to reduce potential discrimination.