

L&T Vehicle Loan Default Prediction: Driving Smarter Lending Decisions (Business Deck)



The Business Challenge: Rising Vehicle Loan Defaults

Financial Losses

Vehicle loan defaults lead to significant financial losses and force tighter underwriting standards, impacting profitability.

Market Share Erosion

Increased rejection rates for loan applications risk alienating creditworthy customers and losing valuable market share to competitors.

Balancing Act

A critical need to develop a predictive model that effectively balances robust risk mitigation with strategic growth opportunities.



What is Loan Default Prediction?

Loan Default Prediction is a sophisticated analytical process designed to forecast the likelihood of a borrower failing to make their first EMI (Equated Monthly Installment) payment.

- Predicts the probability of missing the **first EMI payment**.
- Utilizes a comprehensive set of data points: **borrower demographics, loan specifics, and credit bureau reports**.
- Enables **proactive risk management** and optimizes loan approval processes.



Why Credit Risk Modelling Matters More Than Ever

Mitigating Profitability Threats

Rising defaults directly threaten lender profitability and deplete crucial capital reserves.



Addressing Model Limitations

Traditional credit scoring models struggle to adapt to complex borrower behaviors and rapid market shifts.

Optimizing Lending & Portfolio Management

Take advantage of precise predictive insights to optimize risk-adjusted lending strategies and robust portfolio management.



Business Impact: From Prediction to Action

- **Early Identification:** Proactively intervene with high-risk loans and implement tailored repayment plans.
- **Improved Segmentation:** Optimize pricing strategies and capital allocation based on refined risk profiles.
- **Enhanced Portfolio Quality:** Reduce overall losses and bolster the financial health of the lender's portfolio.

For L&T Finance, managing default risk isn't just about compliance; it directly impacts profitability, efficient capital allocation, and maintaining strong regulatory standing. Improving the accuracy of our default predictions is critical for reducing non-performing assets (NPAs) and refining customer segmentation, allowing for more targeted and responsible lending strategies.





Business Impact: Risk Reduction & Revenue Growth



Reduced Losses

Early identification of potential defaulters minimizes financial losses and significantly reduces recovery costs.



Optimized Pricing

Allows for differentiated pricing strategies, ensuring higher-risk loans are priced appropriately to cover potential losses.



Improved CX

Expedited approval processes for low-risk borrowers lead to a superior customer experience and increased satisfaction.



Regulatory Compliance

Supports adherence to strict regulatory frameworks such as Basel III capital adequacy norms, strengthening institutional stability.



Strategic Recommendations for L&T

01

Integrate Model

Seamlessly embed the prediction model into the loan origination workflow for real-time, informed decision-making.

02

Dynamic Pricing

Utilize risk scores to tailor interest rates and adjust loan terms dynamically, optimizing profitability and risk exposure.

03

Continuous Updates

Regularly update the model with fresh market data and evolving economic indicators to maintain its predictive accuracy.

04

Customer Support

Invest in robust customer education and early intervention programs designed to support at-risk borrowers.



Risks & Mitigations



Model Bias

Actively monitor for disparate impact and adjust model features to ensure fairness and equitable outcomes for all applicants.



Data Quality

Implement robust data governance and stringent validation processes to maintain the integrity and accuracy of input data.



Market Volatility

Incorporate real-time macroeconomic indicators and flexible model adjustments to maintain predictive accuracy during turbulent periods.

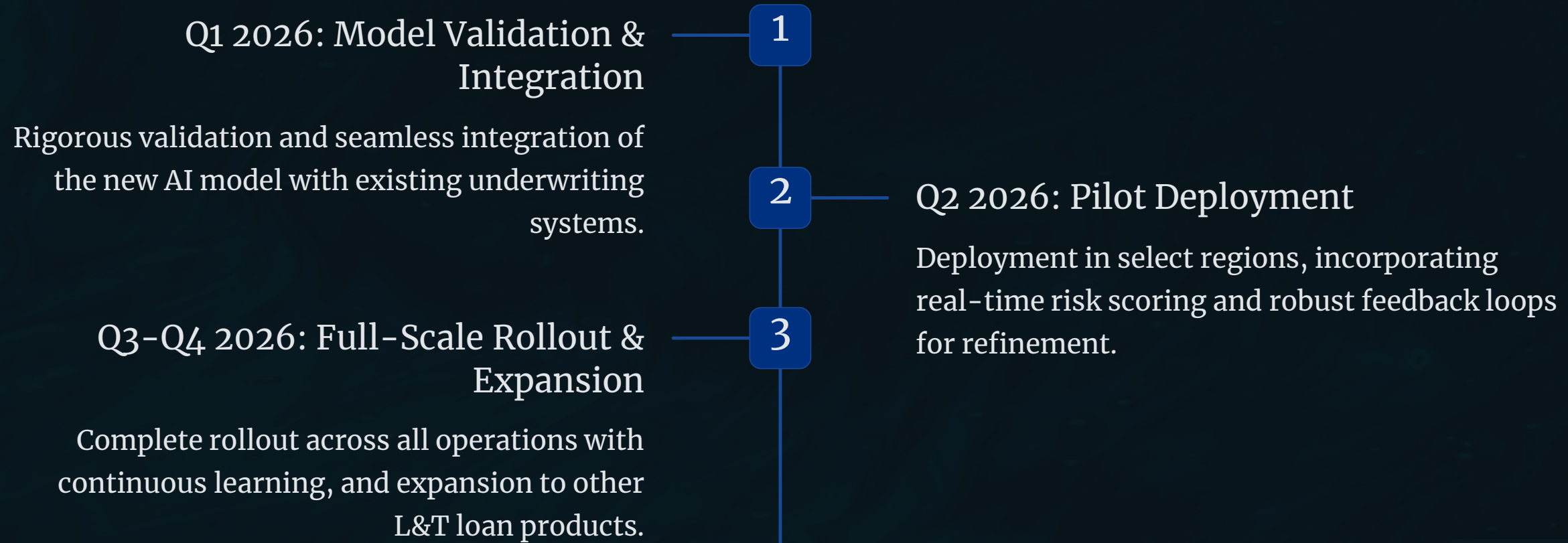


Regulatory Changes

Stay continuously aligned with evolving credit risk frameworks and ensure full compliance with all disclosure requirements.



Implementation Roadmap & Next Steps





ROI Potential: Quantifying the Gains

Predicted Financial Impact of Loan Default Model

Metric	Value (INR)
Predicted Savings (from True Positives)	2232042427.0
Forgone Profit (from False Positives)	10950569.09
Net Financial Impact	2221091857.91

Assumed Interest Rate for Forgone Profit: 10% Note: Savings from True Positives are assumed to be the full disbursed amount of the loan, representing avoided loss. Forgone profit from False Positives is calculated as the disbursed amount multiplied by the assumed interest rate, representing lost potential earnings.



Conclusion: Unlocking Value with Predictive Analytics

- **Strategic Asset:** L&T's vehicle loan default prediction model is a powerful strategic asset for both risk management and fostering sustainable growth.
- **Smarter Lending:** Data-driven insights empower L&T to make smarter lending decisions, precisely target ideal customers, and maintain a robust, healthy portfolio.
- **Next Steps:** We seek executive endorsement to operationalize and scale this predictive risk scoring capability across the organization.
- **Competitive Advantage:** Together, we can transform vehicle lending at L&T into a significant competitive advantage, driving both profitability and customer satisfaction.

Navigating the Road Ahead with Data-Driven Credit Risk Modelling

The auto lending landscape is undergoing rapid transformation, marked by escalating risks and increasing complexity. Embracing advanced predictive analytics is no longer optional; it's a strategic imperative.

By leveraging these sophisticated tools, credit risk management can evolve from a reactive function to a proactive, strategic advantage.

