

# Key Insights and Conclusion



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### 1. Key Predictors of Loan Approval

The Random Forest model identified CIBIL Score, Applicant Income, Requested Loan Amount, and Bank's Asset Valuation as the most influential factors driving approval decisions.

### 2. Loan Approval Rates

A pie chart of loan status shows the proportion of approved vs. rejected applications. A lower approval rate may reflect strict policies or low applicant eligibility.

## 3. Applicant Income Distribution

The income histogram reveals how earnings vary among applicants. A skewed curve highlights a dominance of low- or high-income groups in the data.

### 4. Income vs. Loan Amount

The scatter plot shows whether higher income leads to higher loan requests. A visible trend suggests a positive correlation; a scattered plot implies inconsistent approvals.

### 5. CIBIL Scores and Approval Decisions

Box plots comparing CIBIL scores by approval status show that approved applicants tend to have higher median scores, confirming the importance of credit history in decisions.

