Power BI Dashboard Documentation: Lending MIS (Loan Data Analysis)

1. Introduction

This document provides detailed documentation of the Lending MIS Power BI dashboard. The dashboard is designed to track loan portfolio performance, defaults, and key metrics for financial decision-making. It includes summary views, approval funnel, and default analysis supported by DAX measures.

2. Data Model

The dashboard is built using the provided 'feloandata' dataset. Key columns include Customer_ID, Loan_Amount, Tenure_Months, Approval_Status, Default_Status, Outstanding_Balance, Application_Date, and Disbursal_Date. These fields support measures and visuals.

3. Loan Portfolio Summary

Metrics:

- Applications → COUNTROWS(feloandata)
- Active Loans → Loans with Default_Status = 'No' and Outstanding_Balance > 0
- Defaulted Loans → Loans with Default status = 'Yes'
- Closed Loans → Loans with Default_Status = 'No' and Outstanding_Balance = 0
- Portfolio Outstanding → SUM(Outstanding_Balance)

Visuals:
• Cards displaying Applications, Active Loans, Defaulted Loans, Closed Loans and Portfolio Outstanding
• Treemap for Loan_Type showing portfolio share
• Pie Charts for Loan_Type/ Portfolio Outstanding, Loan_Id share/ Loan_Status.

4. Default Analysis

Metrics:

- Default Rate by Age Group → (Defaults / Total Loans per Age Group)
- Default Rate by Income → (Defaults / Total Loans per Income Band)
- Default Rate by Tenure → (Defaults / Total Loans per Tenure Band)
- Defaulted Portfolio Value → Total Outstanding Balance where Deafaulted_Status='Yes'
- Defaulted Rate → Divide Defaulted Rate, Applications

- Visuals:
  • Bar/Column charts segmented by Age Group, Income Range, and Tenure.
  • Helps identify customer profiles with higher default risk.
  • Line chart for Defaulted Portfolio Value with Disbursal Date.

5. Approval Funnel

Metrics:

- Applications → COUNTROWS(feloandata)
- Approvals → COUNTROWS where Approval_Status = 'Approved'
- Disbursements → COUNTROWS where Disbursal_Date is not blank

Visuals:
• Funnel Chart to track progression from applications to approvals and disbursements.

6. Key Performance Indicators (KPIs)

Metrics:

- Approval Rate → Approvals / Applications
- NPA % → Defaults / Total Loans
- Average Loan Size → AVERAGE(Loan_Amount)
- On-Time Repayment % → % of customers paying EMIs on time

Visuals:
• KPI Cards with trend indicators (Approval Rate, NPA %, Avg Loan Size, On-Time Repayment %).

7. Risk & Loss Calculation

Risk Exposure = SUM(Outstanding_Balance) where Default_Status = 'Yes'
This metric estimates the total outstanding balance at risk due to defaults.

Suggested Visual: Gauge or Card with conditional formatting to highlight risk exposure.

8. Why DAX is Used

DAX (Data Analysis Expressions) is used to:
• Create dynamic measures such as Active Loans, Default %, Approval Rate
• Apply filters and aggregations (e.g., SUM, AVERAGE, COUNTROWS)
• Enable time intelligence (e.g., Application_to_Disbursal days)
• Sync Slicers (Gender, Age, Loan Type, Employment Type, Date), Add page Navigators, Bookmarks.

9. Conclusion

The Lending MIS Dashboard enables monitoring of loan portfolio performance, approval efficiency, and risk exposure. With interactive visuals and DAX measures, it provides actionable insights for lending decision-making.