Credit Score Analysis Project Documentation

Introduction

Team 3 analyzed a financial credit score dataset, focusing on identifying trends, cleaning data, and creating dashboards using Excel, Power Query, Power BI, and Tableau.

Project Objectives

- Clean and transform raw financial data.

- Analyze credit score trends and financial metrics.

- Build interactive dashboards.

- Identify behavioral patterns.

- Provide insights for credit risk assessment.

Tools Used

- Excel: initial exploration

- Power Query: cleaning and transformation

- Power BI: dashboards and KPIs

- Tableau: storytelling and advanced visuals

Dataset Overview

- Dim_Customer_Uncleaned.csv (12,509 rows)

- Dim_Time_Uncleaned.csv (12 rows)

- Fact_Monthly_Records_Uncleaned.csv (148,749 rows)

- Dim_Account_Uncleaned.csv (12,509 rows)

Key Cleaning Steps

- Removed placeholder characters

- Fixed data type inconsistencies

- Handled missing values

- Standardized formats

- Cleaned numeric text columns

- Merged and transformed tables

Analysis Phases

Excel Phase:

- Initial exploration

- Pivots and validation

Power BI Phase:

- Data model creation

- DAX measures

- Interactive visualizations

Tableau Phase:

- Advanced charts

- Story dashboards

Key Insights

- Credit Score Distribution: most customers fall in "Good" category

- Income correlates positively with credit score

- Delayed payments reduce credit score

- High debt-to-income → lower scores

- Longer credit history → higher scores

- Account diversity stabilizes credit

Recommendations

- Implement early warning systems

- Develop income-based lending

- Financial education programs

- Debt management services

- Diversify product offerings

- Dynamic risk pricing

Challenges & Solutions

Challenges:

- Data quality issues

- Large dataset size

- Integrating tools

- Time constraints

Solutions:

- Systematic cleaning

- Team collaboration

- Iterative refinement

- Regular progress reviews

Conclusion

This project successfully cleaned and analyzed over 148k records, uncovered critical credit behavior insights, and built dashboards supporting financial decision-making.

Team Members

- Mark Ayman – Team Leader, Data Cleaning, Visualization

- Rawan Mahmoud – Tableau & Power BI

- Jana Ehab – Analysis, Excel, Power BI

- Filopater Hosny – Power BI