



Final Report

Power BI Inflation Analysis: Journeying Through Global Economic Terrain

Group Members:

- Siddharth Madake
- Rohit Patil
- Soham Suryawanshi
- Shreyash Yadav

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1. INTRODUCTION

1.1 Project Overview

Inflation is a key economic indicator that significantly impacts businesses, consumers, and policymakers. A multinational corporation operating in diverse markets seeks to optimize pricing strategies, mitigate risks, and make informed investment decisions. By leveraging Power BI's analytical capabilities, this project aims to provide tailored insights into inflation trends, ensuring data-driven decision-making across different markets.

1.2 Purpose

The objective of this project is to create an interactive Power BI dashboard that visualizes inflation trends, highlights key economic patterns, and offers actionable recommendations. This will help stakeholders navigate complex global economic conditions and make informed strategic decisions.

2. IDEATION PHASE

2.1 Problem Statement

Key challenges in global inflation analysis include:

Lack of standardized data integration across different regions

Limited historical data accessibility

Complex economic interdependencies affecting inflation trends

2.2 Empathy Map Canvas

Understanding stakeholders' needs:

Businesses: Require insights to adjust pricing and investment strategies.

Consumers: Need awareness of inflation trends impacting purchasing power.

Policymakers: Require data-driven insights for economic policies.

2.3 Brainstorming

Potential solutions include:

Implementing data standardization techniques

Enhancing historical data collection through third-party APIs

Using advanced economic modeling techniques in Power BI

3. REQUIREMENT ANALYSIS

3.1 Customer Journey Map

Data collection from multiple sources

Data cleaning and standardization

Dashboard development in Power BI

Insights generation and reporting

Continuous monitoring and updates

3.2 Solution Requirement

Reliable data sources (World Bank, IMF, country-specific databases)

Power BI for visualization and analysis

Predictive modeling techniques for trend forecasting

3.3 Data Flow Diagram

A structured flowchart illustrating the end-to-end data processing cycle.

3.4 Technology Stack

Data Sources: IMF, World Bank, local government reports

ETL Tools: Power Query, Python (for preprocessing)

Visualization: Power BI

Modeling: Power BI DAX, Machine Learning (if applicable)

4. PROJECT DESIGN

4.1 Problem-Solution Fit

Our approach ensures businesses, consumers, and policymakers receive real-time, reliable inflation insights for better decision-making.

4.2 Proposed Solution

A standardized, integrated data processing pipeline

Interactive dashboards providing real-time inflation trends

Predictive analytics for future inflation trends

4.3 Solution Architecture

A high-level system architecture diagram showing data sources, transformation processes, and Power BI dashboard integration.

5. PROJECT PLANNING & SCHEDULING

5.1 Project Planning

- Phase 1: Data collection & cleaning
- Phase 2: Power BI dashboard development
- Phase 3: Model building & analysis
- Phase 4: Validation and deployment
- Phase 5: Stakeholder feedback & refinements

6. FUNCTIONAL AND PERFORMANCE TESTING

6.1 Performance Testing

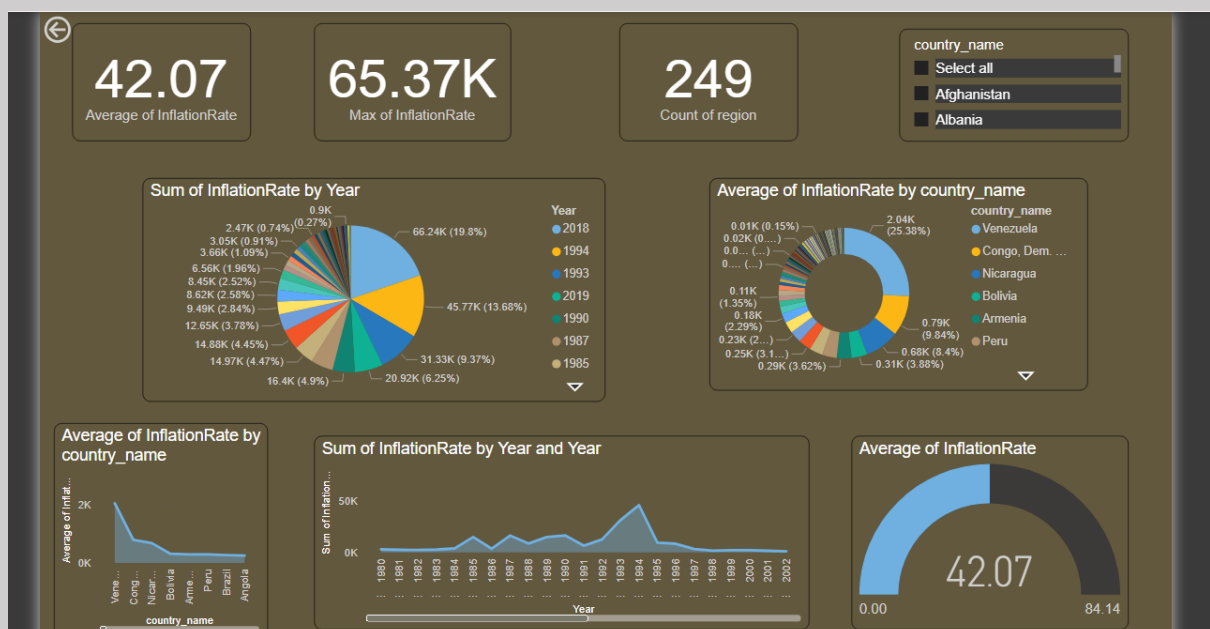
Data refresh rates and processing time

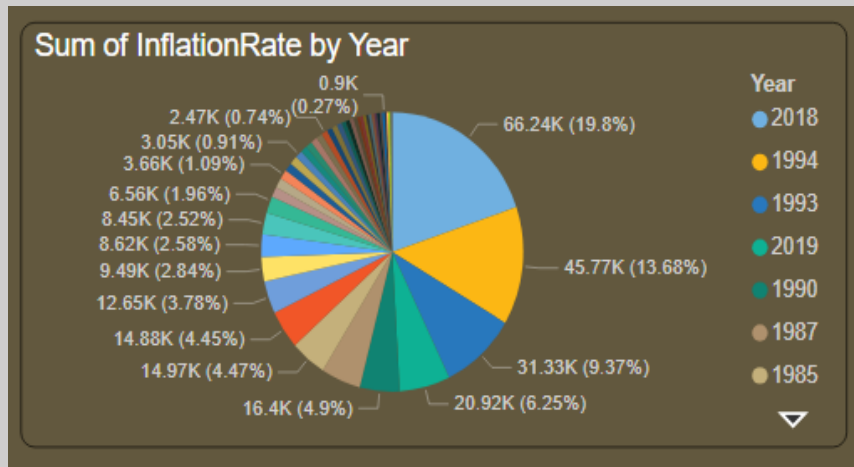
Dashboard responsiveness and interactivity

Accuracy of predictive models

7. RESULTS

7.1 Output Screenshots





8. ADVANTAGES & DISADVANTAGES

Advantages:

1. Real-time, interactive analysis
2. Improved decision-making for stakeholders
3. Scalable and adaptable across different markets

Disadvantages:

1. Data integration challenges
2. Dependence on data availability and quality
3. Computational complexity in predictive modeling

9. CONCLUSION

This Power BI inflation analysis project provides crucial insights into inflation trends, empowering businesses and policymakers with data-driven strategies. The interactive dashboard enhances decision-making efficiency, mitigating risks and optimizing pricing strategies.

10. FUTURE SCOPE

Expanding data sources for improved accuracy

Enhancing automation for real-time updates

Incorporating AI-driven predictive models