**Power BI Inflation Analysis: Journeying Through Global Economic Terrain**

**Document Title:** Problem Statement Document

**Author:** Muhammad Yasir

**Team ID:** XXXXX

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## ****Introduction****

### ****Background:****

Inflation is the rate at which the general level of prices for goods and services rises, eroding purchasing power. It affects individuals, businesses, and governments by influencing interest rates, investments, and economic stability.  
Analyzing inflation is important because it provides insights into **economic health, cost of living, and policy effectiveness**.

Different countries and organizations often report inflation data differently, which creates challenges for comparison. By using **Power BI**, we can bring together data from multiple sources, standardize it, and create **interactive dashboards** that highlight global and regional inflation trends. Power BI allows visual storytelling, drill-down analysis, and user-friendly comparisons that static reports cannot provide.

### ****Purpose of the Document****

The purpose of this document is to:

* Clearly **define the problems** related to analyzing global inflation data.
* Capture both **technical/business challenges** (data integration, missing history, economic interdependencies) and **user pain points** (frustrated policymakers, limited analysts, overwhelmed students).
* Provide a **foundation for the next stage (Project Planning)**, where approaches and solutions will be developed.

## ****Problem Statements (Scenario-Based Challenges)****

### ****Scenario 1:** Lack of Data Integration and Standardization**

**Explanation of the issue:**  
Inflation data is collected from various global sources — government reports, financial institutions, and international organizations. Each uses different formats, units, and reporting methods. This inconsistency makes it difficult to merge and compare the data in a single dataset.

**Why it’s a challenge in global inflation analysis:**  
Without standardized data, Power BI dashboards may produce misleading comparisons or incomplete insights. Analysts spend significant time cleaning and aligning data instead of focusing on analysis, reducing the effectiveness of decision-making.

### ****Scenario 2:** Limited Historical Data Accessibility**

**Explanation of the issue:**  
Many countries do not provide long-term historical inflation data, and where data exists, it may be incomplete or inconsistent. Analysts often have access only to recent data, which limits the scope of analysis.

**Why it matters for forecasting and long-term analysis:**  
Accurate forecasting requires long-term historical patterns. Without sufficient history, trends cannot be identified reliably, and predictive models in Power BI lack robustness. This limits the ability to guide policymakers, businesses, and investors in making informed decisions.

### ****Scenario 3:** Complex Economic Interdependencies**

**Explanation of the issue:**  
Global economies are interconnected. A surge in inflation in one region (e.g., due to oil prices) can have ripple effects worldwide. Understanding these interdependencies requires not only local data but also global economic linkages.

**Why it complicates analysis in Power BI:**  
Capturing interdependencies requires integrating multiple datasets and applying comparative analysis. Power BI dashboards may show country-level data, but explaining why one country’s inflation impacts another is complex. Without proper modeling, users may misinterpret the drivers of inflation.

## ****Problem Statements (Customer-Centric View)****

### ****Introduction****

While the previous section outlined the technical and business challenges of inflation analysis, this section highlights the **user perspective**. By framing problems in the voice of end-users, we capture how these challenges affect decision-making, research, and analysis on a personal level.

### ****User Pain Points Table****

| **Problem Statement ID** | **I am (End User)** | **I’m trying to…** | **But…** | **Because…** | **Which makes me feel…** |
| --- | --- | --- | --- | --- | --- |
| PS-1 | Policymaker / Economist | Understand global inflation trends across countries to design effective policies | The data is fragmented and hard to compare across regions | There is no single interactive dashboard for global inflation insights | Frustrated and uncertain in decision-making |
| PS-2 | Financial Analyst / Investor | Track inflation’s impact on purchasing power and investment opportunities | Current reports are static and do not allow quick drill-downs or comparisons | Inflation data is stuck in spreadsheets without visualization | Limited in analysis and less confident in advising clients |
| PS-3 | Researcher / Student | Study historical inflation data for academic or research purposes | The raw dataset is complex and difficult to interpret directly | It lacks storytelling and interactive explanations | Overwhelmed and discouraged |

## ****Why These Problems Matter****

### ****Impact on Decision-Making****

* **Policymakers / Economists** → Without a unified and reliable inflation dashboard, they risk making **ineffective or delayed policy decisions**, which can worsen inflation control strategies.
* **Financial Analysts / Investors** → Lack of interactive, timely insights limits their ability to **predict risks and opportunities**, reducing confidence in investment advice.
* **Researchers / Students** → Inaccessible and unstructured datasets make it harder to **generate insights, academic research, or policy studies**, creating barriers to learning and innovation.

### ****Impact on Global Economic Understanding****

* Fragmented data means **inconsistent inflation comparisons across regions**, leading to biased or misleading conclusions about global economic health.
* Limited historical datasets weaken the ability to **detect long-term inflation trends and patterns**, which are vital for forecasting.
* Ignoring economic interdependencies can cause analysts to **miss hidden ripple effects** between countries, producing incomplete insights.

### ****Why Solving These Problems First is Important****

* These issues form the **foundation of the project** — unless data integration, accessibility, and visualization challenges are addressed, any future solution will fail to deliver meaningful insights.
* By solving these problems in **Phase 1 (Problem Statement)**, the next phase (**Project Planning**) will have a **clear roadmap**, ensuring that the Power BI solution directly responds to user pain points and global challenges.

## ****Conclusion****

In this document, we identified the key problems in analyzing global inflation through Power BI. Both **technical challenges** and **user challenges** were explored.

This creates a strong justification for developing a **Power BI Inflation Analysis Dashboard** that provides standardized, integrated, and interactive insights into global economic trends.