Project Test

To complete this project as a data analyst for Kiva, I'll follow the guidelines and provide a concise response to each of the requested deliverable s

**Deliverable 1: Define Metrics**

1. Loan Repayment Rate: This metric is calculated by dividing the total amount of loans repaid by the total amount of loans disbursed. It is important because it reflects the effectiveness of Kiva's lending model and the trustworthiness of borrowers. A high loan repayment rate indicates successful lending practices and financial stability. However, it doesn't consider the time it takes for loans to be repaid or the impact of late repayments on Kiva's operations.

Pros:

Easy to calculate

Widely used and understood metric

Good proxy for Kiva's impact on borrowers

Cons:

Can be affected by external factors, such as economic conditions

Does not take into account the size or complexity of loans

Does not measure other aspects of borrower success, such as increased income or improved quality of life

1. Borrower Impact Score: This metric assesses the social impact created by borrowers. It considers factors such as gender equality, education, and poverty alleviation. The borrower impact score provides insights into the effectiveness of Kiva's mission and its contribution to social development.

The formula can be: BIS = (Total Loan Amount \* Number of Borrowers Impacted) / (Total Number of Loans Funded). This metric will help Kiva assess how effectively their loans are contributing to positive social change.

Pros:

Reflects the organization's core mission of alleviating poverty and promoting economic opportunity.

Easy to understand and communicate to stakeholders.

Encourages Kiva to prioritize projects with a high social impact.

Cons:

Does not account for financial sustainability and profitability.

May not capture the long-term effects of the loans.

**Deliverable 2: Short Analysis**

I would focus on the Loan Repayment Rate metric. I would analyze the repayment rates across different loan categories, geographies, and borrower profiles. This analysis will help identify trends and patterns that can inform decision-making and improve lending strategies.This analysis will also help understand if Kiva's loans are becoming more impactful over time and if they are achieving their social mission

**Deliverable 3: Recommendation for Tracking and Reporting**

I recommend using a combination of tools and methodologies:

1. Data Visualization Tools: Utilize tools like Tableau or Power BI to create interactive and visually appealing dashboards that provide real-time insights into the metrics. This allows stakeholders to track progress, identify trends, and make data-driven decisions.

2. Statistical Analysis: Apply statistical techniques, such as regression analysis or hypothesis testing, to identify factors that influence the metrics. This will help in understanding the drivers behind the data and provide actionable recommendations.

3. Regular Reporting: Establish a regular reporting cadence, such as weekly or monthly, to ensure stakeholders are informed about the metrics' performance. This can be achieved through automated reports or executive summaries that highlight key findings and trends.

**Challenges that may arise include:**

1. Data Quality: Ensure the datasets are accurate, complete, and up-to-date. Implement data validation processes to identify and address any data quality issues that may affect the metrics' accuracy.

2. Data Integration: As Kiva may have multiple datasets, integrating them can be challenging. Develop a data integration strategy to combine and clean the data from different sources, ensuring consistency and reliability.

3. Metric Definition: Define clear and consistent methodologies for calculating the metrics to prevent ambiguity and enable meaningful comparisons. Collaborate with stakeholders to establish common definitions and ensure alignment on the metrics' interpretation.