



Measure Definitions

Flexi-Income Intelligence Suite
IT300 – Business Intelligence Project

Overview

This document defines the analytical measures used to evaluate income stability, risk exposure, and eligibility for the *Salary Smoothing* product. All measures are derived from the daily-grain fact table **Fact_Job_Earnings** and its associated dimensions.

Defined Measures

1. Total Earnings

Definition: Total income generated over a selected period.

Formula:

$$SUM(daily_earnings)$$

Business Value: Measures overall portfolio size and lending exposure.

2. Average Daily Earnings (ADE)

Definition: Average income earned on days where the worker is active.

Formula:

$$\frac{TotalEarnings}{NumberofActiveDays}$$

Business Value: Establishes a baseline income level for worker comparison.

3. Income Volatility Index (IVI)

Definition: Relative variability of a worker's daily income.

Formula:

$$\frac{\sigma(DailyEarnings)}{\mu(DailyEarnings)}$$

Business Value: Core risk metric used to assess credit eligibility.

4. Gap Day Frequency

Definition: Proportion of days with zero income.

Formula:

$$\frac{\text{Number of Gap Days}}{\text{Total Days}}$$

Business Value: Identifies income reliability risk and repayment interruptions.

5. Average Gap Duration

Definition: Average number of consecutive zero-income days per worker.

Formula (Conceptual):

$$\text{AVG}(\text{length of consecutive gap - day sequences})$$

Business Value: Determines the appropriate duration of salary-smoothing advances.

6. Platform Dependency Ratio

Definition: Share of earnings generated from a worker's primary platform.

Formula:

$$\frac{\text{Maximum Earnings by Platform}}{\text{Total Earnings}}$$

Business Value: Measures exposure to single-platform risk.

7. Eligibility Percentage

Definition: Percentage of workers eligible for the Salary Smoothing product.

Eligibility Rule:

$$\text{Income Volatility Index} < 20\%$$

Formula:

$$\frac{\text{Eligible Workers}}{\text{Total Workers}}$$

Business Value: Estimates the total addressable market for the product.

8. Work Intensity Ratio

Definition: Proportion of days in which a worker actively generates income.

Formula:

$$\frac{\text{Active Days}}{\text{Total Days in Period}}$$

Business Value: Distinguishes full-time from casual workers and supports income stability analysis.

9. Week-over-Week Growth (WoW)

Definition: Short-term change in earnings compared to the previous week.

Formula:

$$\frac{\text{Earnings}_{curr} - \text{Earnings}_{prev}}{\text{Earnings}_{prev}}$$

Business Value: Detects sudden income drops or recoveries.

10. Month-over-Month Growth (MoM)

Definition: Monthly earnings trend over time.

Formula:

$$\frac{\text{Earnings}_{curr} - \text{Earnings}_{prev}}{\text{Earnings}_{prev}}$$

Business Value: Supports seasonality analysis and operational forecasting.

Notes

All measures are computed using single-directional relationships from dimensions to the fact table. The analytical scope is limited to descriptive and diagnostic Business Intelligence.