

Macro UPI transaction trends

Using the available data on India's digital payments — specifically UPI transaction volumes, values, and participating banks/apps — the task is to build an end-to-end analytical solution that detects and explains unusual macro-level patterns in UPI growth and participation. The solution must:

- Model normal system-wide behavior in terms of growth rates, seasonality, and concentration of UPI transactions across banks and apps, and
- Flag statistically significant deviations from this behavior, such as:
 - sudden surges or drops in total UPI volume/value not aligned with historical patterns,
 - abrupt or repeated jumps in a bank's or app's UPI market share relative to peers, and
 - periods where system growth decouples from expected macro or seasonal trends.
 - For each flagged period or entity, the candidate must classify the anomaly as a potential business/operational risk signal or a likely data-quality artefact, and provide a short, domain-grounded narrative of possible causes, using only aggregated, publicly available information and without attempting individual transaction-level fraud detection.

Data sources

The data must be sourced only from the following portal. When demanded during evaluation the candidate must provide evidence of the data pulled from the following portal by providing a working hyperlink to the downloaded file on the portal.

You will be evaluated for the choice of sample you select from the ones provided here.

Year	Name	Catalog
2022	Dataset and registries in India (MOSPI)	https://www.mospi.gov.in/sites/default/files/publication_reports/Datasets%20and%20Registries%20in%20India%202022.pdf
2023	Dataset and registries in India (MOSPI)	https://www.mospi.gov.in/sites/default/files/Compendium_of_Datasets_and_Registries_in_India_2023.pdf
2024	Dataset and registries in India (MOSPI)	https://www.mospi.gov.in/sites/default/files/publication_reports/Compendium_of_Datasets_and_Registries_in_India_2024_1.pdf