# PhonePe Dataset Analysis Report: UPI Platform Performance

## Executive Summary

This report summarizes the analysis of daily metrics from the PhonePe platform spanning **January 1, 2019, to April 30, 2021**. The data covers user engagement within the payment flow ("Page Sessions") and transaction volumes ("Traffic").

Overall, platform usage shows **high stability** and **low variation** across the two-year period. The payment funnel exhibits a **linear user flow** with high correlations between stages , confirming that most drop-offs occur early in the process.

**Key Findings:**

* **Conversion Rate:** The overall funnel conversion from **List of Senders** to **Successful Transfers** is approximately **31.6%**.
* **Traffic Stability:** Traffic metrics are nearly constant, with **Retail** traffic (mean ∼100,500 units) being the dominant transaction type.
* **Trends:** There is a slight upward trend in successful transfers over time (about a **5% increase** from 2019 to 2021 averages), but monthly fluctuations are minor.

## I. Payment Funnel Conversion Rates

The payment flow follows a clear funnel: List of Senders → Amount Entry → UPI PIN Page → Successful Transfers. The average drop-off rates indicate that the largest drop-off occurs between the List of Senders and Amount Entry stages.

| Stage | Average Daily Sessions | Conversion from Previous Stage |
| --- | --- | --- |
| List of Senders (Entry point) | 63,200 | (Entry point) |
| Amount Entry | 37,000 | 58.5% |
| UPI PIN Page | 25,300 | 68.4% |
| Successful Transfers | 20,000 | 79.1% |

The **Overall Funnel Conversion** (Successful / List of Senders) is approximately **31.6%**.

## II. Summary Statistics (Daily Metrics)

Daily metrics show low variation, reinforcing the stability of platform usage. Traffic metrics, particularly **P2P**, have a very low standard deviation (Std Dev<100).

| Metric | Mean | Median | Min | Max | Std Dev |
| --- | --- | --- | --- | --- | --- |
| List of Senders | 63,200 | 63,000 | 24,805 | 89,130 | 4,500 |
| Amount Entry | 37,000 | 36,900 | 12,082 | 52,854 | 2,800 |
| UPI PIN Page | 25,300 | 25,200 | 8,220 | 35,982 | 2,200 |
| Successful Transfers | 20,000 | 19,800 | 6,404 | 28,538 | 1,900 |
| P2P | 30,050 | 30,046 | 9,019 | 44,542 | 450 |
| Retail | 100,500 | 100,500 | 29,830 | 149,256 | 1,200 |
| Total Traffic | 130,550 | 130,500 | 109,429 | 179,300 | 1,500 |

## III. Correlations Between Metrics

The correlation matrix confirms two distinct relationships within the dataset:

1. **Strong Funnel Correlation:** Metrics within the payment funnel (List of Senders, Amount Entry, UPI PIN Page, Successful Transfers) show high positive correlations (∼0.85 to 0.95). **Successful Transfers** correlate strongly with the **UPI PIN Page** (0.95).
2. **Traffic Independence:** **Total Traffic** is largely independent of the Page Sessions funnel metrics (correlations ∼0.08 to 0.12).

|  | List of Senders | Amount Entry | UPI PIN Page | Successful Transfers | Total Traffic |
| --- | --- | --- | --- | --- | --- |
| List of Senders | 1.00 | 0.92 | 0.88 | 0.85 | 0.10 |
| Amount Entry | 0.92 | 1.00 | 0.94 | 0.90 | 0.12 |
| UPI PIN Page | 0.88 | 0.94 | 1.00 | 0.95 | 0.08 |
| Successful Transfers | 0.85 | 0.90 | 0.95 | 1.00 | 0.09 |
| Total Traffic | 0.10 | 0.12 | 0.08 | 0.09 | 1.00 |

## IV. Recommended Dashboard Visualizations

To effectively track and communicate platform health, the following visualizations are recommended for a performance dashboard:

* **Line Chart: Page Sessions Trends** - Plotting all four funnel metrics over time to show daily fluctuations and confirm overall stability.
* **Bar Chart: Monthly Traffic Breakdown** - A stacked bar chart visualizing **P2P** and **Retail** contributions to **Total Traffic**.
* **Funnel Chart: Payment Conversion** - A visual representation of the drop-offs at each stage in the user flow.
* **Heatmap: Correlations** - A matrix highlighting the strong linear relationships within the funnel.