Data Analysis

PhonePe

PhonePe Pulse Data

PhonePe: A Digital Payment Leader

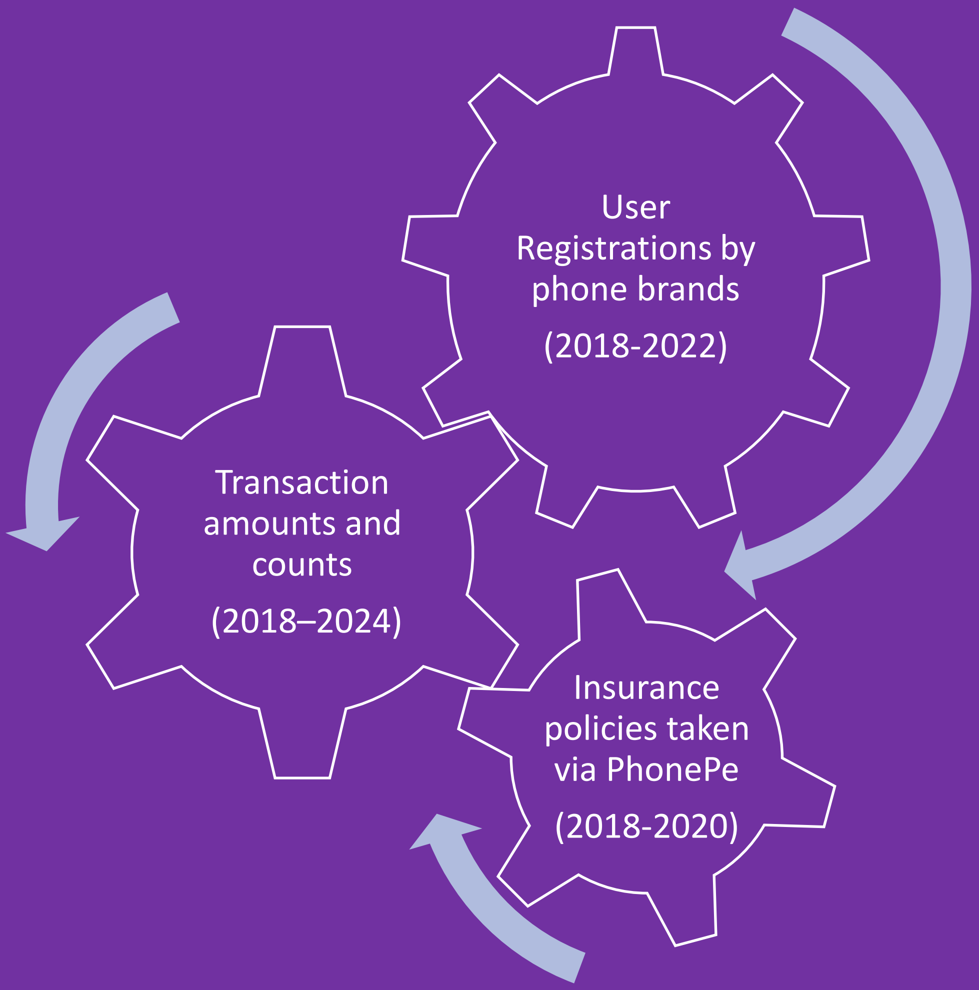
Insights from PhonePe Pulse data – User Registrations, Transactions, and Insurance Trends

Objective of Analysis	Identify trends, patterns, and correlations in user registrations, transaction activity, and insurance adoption over time.
Digital Payments Platform	Facilitates instant money transfers and various payment services.
User Registration Data	User Registration Insights – Growth trend analysis (2018-2022) and phone brand preferences
Transaction Data	Transaction Insights – Yearly, Quarterly Trends (2018–2024) and Category-wise Analysis
Insurance Data	Insurance Insights – Yearly, Quarterly Trends (2020–2024)

Overview of the Dataset and Data Integration Process

PhonePe

What does the dataset contain?



Data Integration Process (ETL Process)

Extract

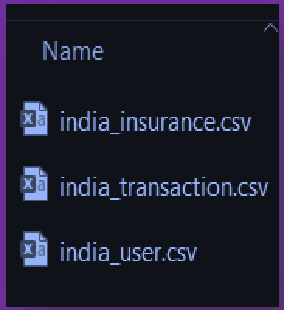
- Collect PhonePe Pulse - Data
- JSON Form
- Used Python to extract data

Transform

- Clean, enrich and convert the raw data into usable format

Load

- Loading PhonePe's cleaned data into Power BI for visualization



Visualization using Power BI

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PhonePe Pulse Data - Insights

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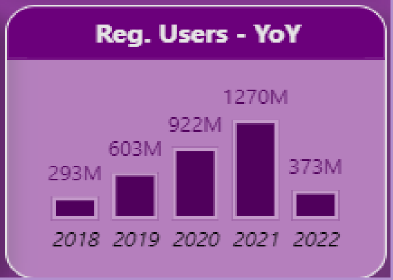
User Registration Insights

Most users registered PhonePe using Xiaomi brand.

Top Brand

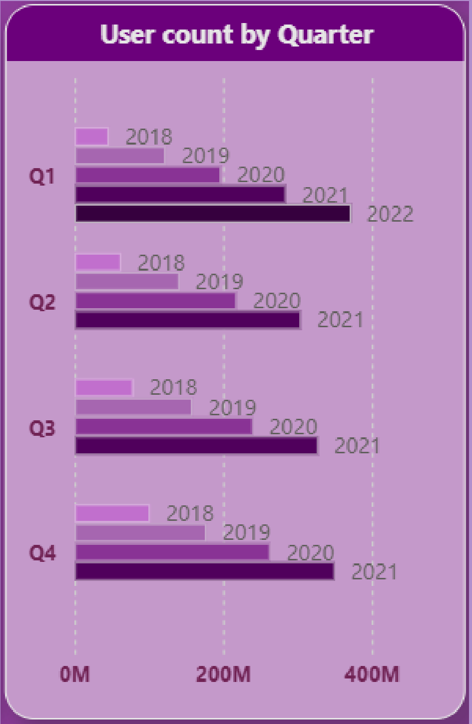
Xiaomi



Steady Growth in user registration from 2018 to 2021.

User by Brand - YoY

quarter	2018	2019	2020	2021	2022
Q1	46.88M	123.43M	197.58M	284.99M	372.95M
Q2	63.65M	141.81M	219.00M	305.26M	
Q3	80.01M	159.29M	241.17M	328.35M	
Q4	102.26M	178.28M	264.27M	351.16M	



For every year, Q1 is having less user registration
Q4 is having more user registrations

* 2022 show only Q1 data

Xiaomi, Samsung and Vivo stands as top 3 brands across all years which shows most of the users are registered with these brands.

User by Brand - YoY

Brand	2018	2019	2020	2021	2022
⊞ Xiaomi	75.91M	156.85M	235.30M	313.07M	88.43M
⊞ Vivo	40.35M	95.98M	163.06M	248.81M	77.22M
⊞ Tecno				3.80M	4.55M
⊞ Samsung	59.52M	122.12M	183.86M	240.22M	65.89M
⊞ Realme	14.50M	29.81M	51.95M	91.03M	32.69M

62% users used top 3 brands

Bottom 5 Brand

Brand	SelectedBrandUserCount
Tecno	8M
Lenovo	44M
Huawei	60M
OnePlus	71M
Motorola	75M

Bottom 3 brands used for Registration are Lenovo, Huawei, OnePlus.

* Tecno brand has data for Q1 and Q2 only.

PhonePe Pulse Data - Insights

User Registration Insights

- **Xiaomi** consistently has the **highest percentage share** across all years, indicating its strong market presence and sustained popularity.
- **Samsung** holds the **second position** throughout most years, maintaining steady growth with slight fluctuations.
- Yearly Percentage Share increased for **Vivo** and **Realme** brand by 53% and 70% respectively in 2021 compare to 2020
- Yearly Percentage Share decreased for **Lenevo** (-21%) and **Motorola** (10%) in 2021 compare to 2020

Digital Transactions Insights

Transaction volumes grew by an average of 109% year-over-year, with the highest growth in 2019 due to increased digital adoption during the pandemic.

Peer-to-peer payments Top Transaction Category	2023 Highest Transaction Year

Peer-To-Peer payments is the Top Transaction Category.

Highest Transaction Year is 2023. Around ₹ 94T

Growth Rate - YoY

Year	YoY Growth %	Total Transaction Count
2018	0.00%	1080M
2019	277.69%	4080M
2020	95.45%	7974M
2021	141.89%	19288M
2022	103.76%	39301M
2023	63.50%	64257M
2024	-29.56%	45263M

Growth Rate - QoQ

Quarter	2018	2019	2020	2021	2022	2023	2024
Q1	0%	47%	19%	16%	14%	8%	9%
Q2	77%	37%	-2%	19%	17%	12%	8%
Q3	56%	24%	47%	23%	7%	5%	
Q4	41%	35%	38%	26%	14%	13%	

High Growth Quarters: Q4 of each year shows highest growth, driven by festive shopping and end-of-year offers.

Reduction in QoQ transactions volumes after 2020:
The reasons could be Economic Slowdown, Inflation and Post Pandemic Effects and Market Competition.

Seasonal Impact: Q1 typically shows slower growth or declines, likely due to post-holiday reduced spending and fewer promotions. But 2019 Q1 is exceptional due to increased digital adoption during the pandemic.

Yearly - Category Transaction

Category	2018	2019	2020	2021	2022	2023	2024
Recharge & bill payments	₹ 110bn	₹ 350bn	₹ 744bn	₹ 1,317bn	₹ 2,227bn	₹ 3,780bn	₹ 2,329bn
Peer-to-peer payments	₹ 1,433bn	₹ 5,489bn	₹ 12,326bn	₹ 27,967bn	₹ 50,046bn	₹ 72,524bn	₹ 46,145bn
Others	₹ 20bn	₹ 24bn	₹ 14bn	₹ 27bn	₹ 29bn	₹ 27bn	₹ 15bn
Merchant payments	₹ 57bn	₹ 411bn	₹ 1,548bn	₹ 5,271bn	₹ 11,945bn	₹ 18,130bn	₹ 12,763bn
Financial Services	₹ 4bn	₹ 2bn	₹ 8bn	₹ 16bn	₹ 19bn	₹ 31bn	₹ 26bn

Dominance of Peer-to-Peer Payments:
Peer-to-peer payments (P2P) have consistently contributed the largest share across all years.
Merchant Payments Show Strong Growth:
Merchant payments grew exponentially, from ₹57bn in 2018 to ₹18,130bn in 2023.

Strong Growth Period (2018-2023):

- Transaction amounts rose from ₹2T in 2018 to ₹94T in 2023—a growth of 4,600%.
- Transaction counts increased from 4 billion in 2019 to 64 billion in 2023—a significant adoption curve.

Possible Drivers:

- Increased smartphone penetration.
- Adoption of digital payments, especially post-2020 due to COVID-19.

Registered User Data Interpretation

The analysis for Registered User for PhonePe Application is based on below assumptions

1. **Duplicate Registrations (Using multiple mobile numbers)**
   - Many users may register multiple accounts using different phone numbers, emails, or devices.
   - Businesses might also create multiple accounts for different purposes, adding to the total count.

2. **Inactive or Dormant accounts**
   - The number may include users who registered but no longer actively use the platform.
   - Old accounts that are not deleted might still be part of the total.

3. **Non-Human Entities**
   - Some accounts could be created by bots or for testing purposes.
   - Business or institutional accounts might also be counted.

4. **Non-Unique Users**
   - A single individual may have registered multiple accounts for different purposes (e.g., personal use, business use).

Thank You