

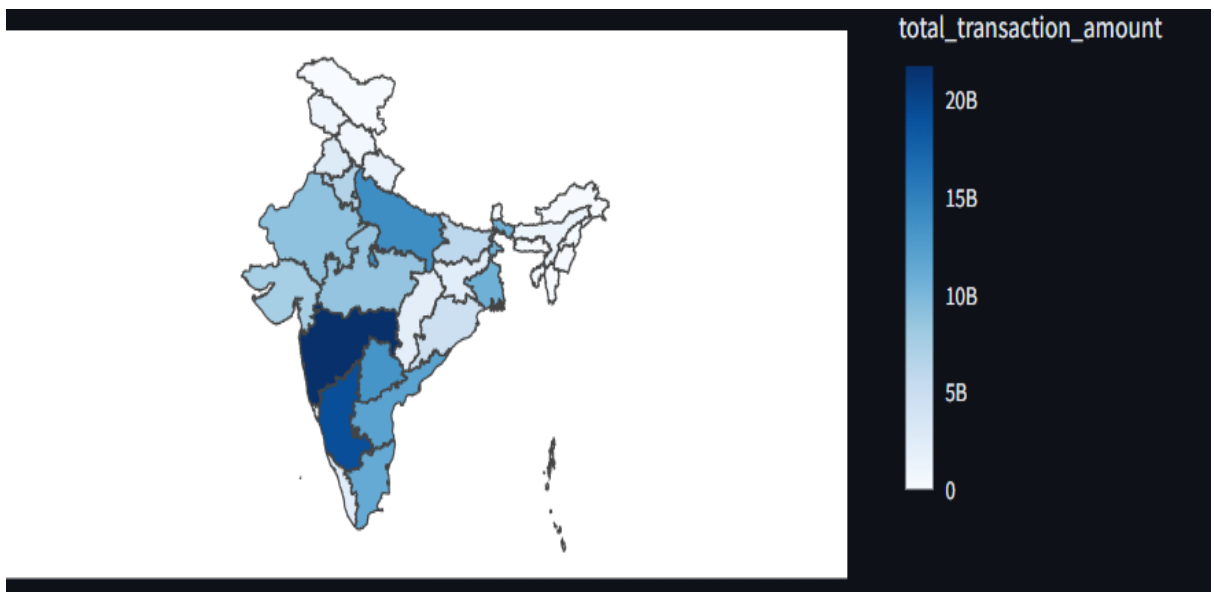
# Phone Pay Transaction Insights

## 1. Decoding Transaction Dynamics on PhonePe

### Scenario

PhonePe, a leading digital payments platform, has recently identified significant variations in transaction behaviour across states, quarters, and payment categories. While some regions and transaction types demonstrate consistent growth, others show stagnation or decline. The leadership team seeks a deeper understanding of these patterns to drive targeted business strategies.

- **Total Transaction amount Analysis.**



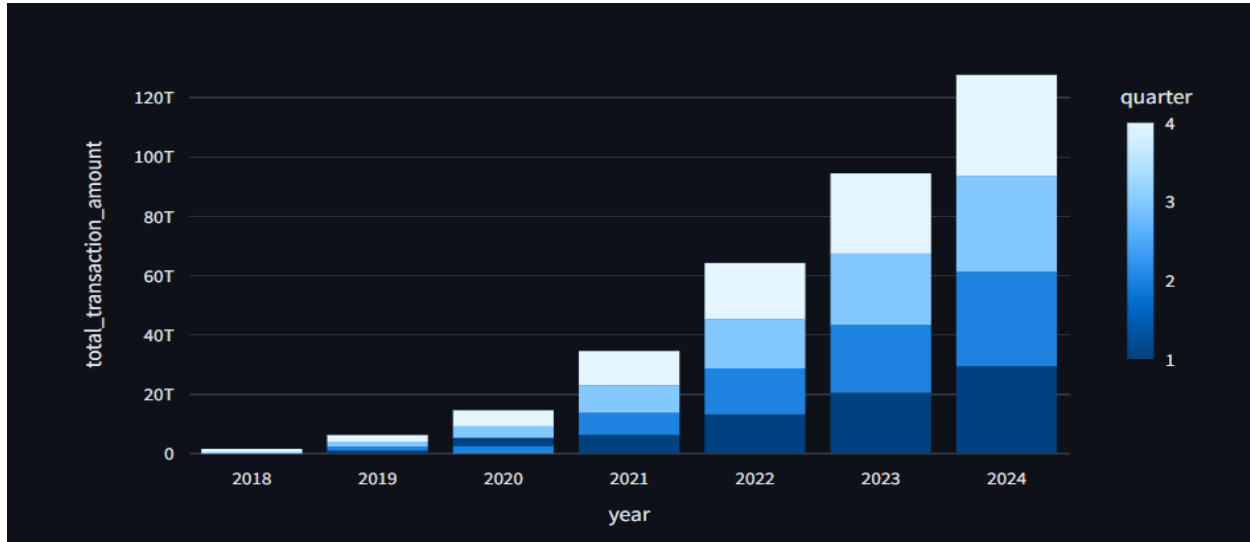
The heatmap illustrates the total transaction amount across Indian states, highlighting significant regional disparities. States like Karnataka, Maharashtra, and Andhra Pradesh lead in transaction volumes, indicating higher digital payment adoption in these regions.

- The heatmap provides a clear visual representation of the digital transaction intensity, with darker shades signifying higher transaction amounts.
- A noticeable concentration of high transaction volumes is seen in economically developed states, indicating a correlation between digital adoption and state-level economic activity.
- The southern region stands out prominently, emphasizing its leadership in digital payment ecosystems.

- **Transaction Behaviour across Years and Quarters.**

Years-2018,2019,2020,2021,2022,2023,2024

Quarters-1,2,3,4



- **Insights:**

- The stacked bar chart highlights a remarkable year-on-year growth in total transaction amounts from 2018 to 2024, with each subsequent year surpassing the previous.
- There is a clear and consistent upward trend, indicating strong adoption and increasing reliance on digital transactions over time.
- Each quarter contributes progressively to the annual totals, with noticeable acceleration post-2020, possibly due to the shift towards digital platforms during and after the pandemic.

- **Analytical:**

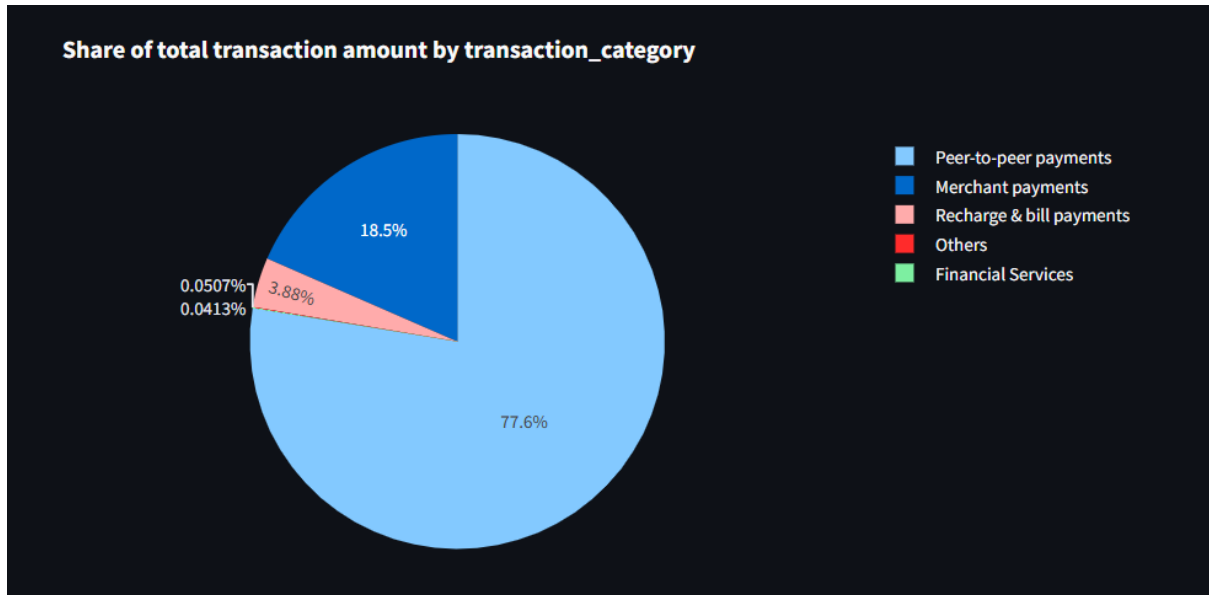
- The transaction volume has grown exponentially, particularly from 2021 onwards, suggesting rapid scaling of digital payment infrastructure and user engagement.
- The chart shows not only an increase in total value but also a balanced growth across all quarters, indicating sustained user activity throughout the year.
- From 2021 to 2024, each quarter has shown a significant rise, highlighting both seasonal consistency and platform maturity.

- **Business Focused:**

- The continuous growth signals strong digital market potential, making India a leading candidate for further fintech investments.
- The trend showcases increasing user confidence in digital payment systems, underlining the success of government and private sector initiatives promoting financial digitization.

- Transaction behavior across payment categories.

- Transaction Amount across payment categories.



#### Share of Total Transaction Amount by Category.

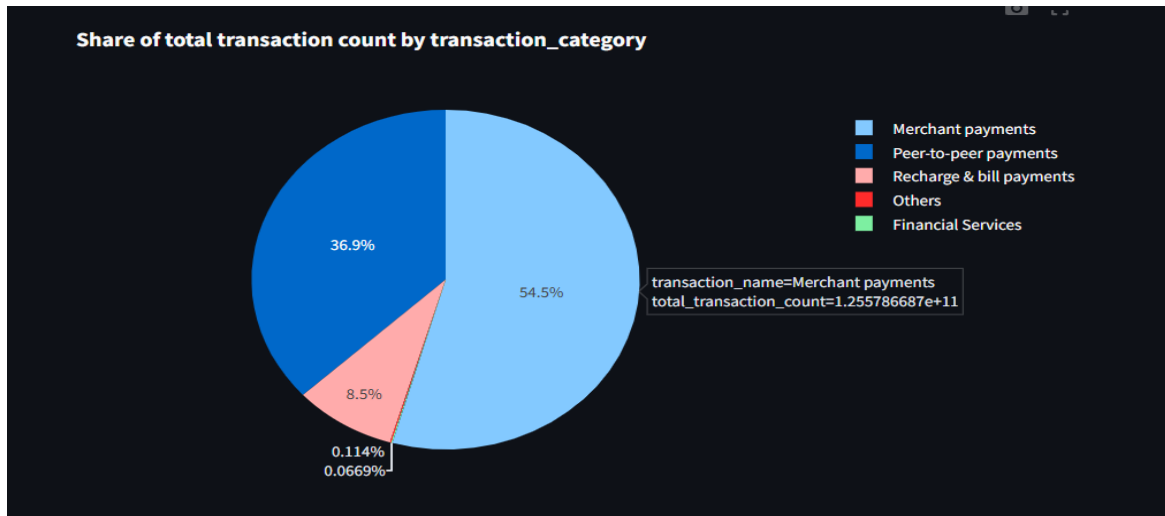
This pie chart highlights the distribution of digital transactions across various categories:

- **Peer-to-peer payments** dominate with **77.6%**, showcasing the widespread use of personal transfers.
- **Merchant payments** hold a significant **18.5%** share, reflecting strong adoption by businesses.
- **Recharge & bill payments, Others, and Financial Services** make up a small fraction of the total volume.

#### Insight:

Peer-to-peer remains the backbone of digital transactions, but merchant payment adoption is steadily growing — a sign of increasing digital integration in commerce.

- Transaction Count across payment categories.



### Share of Total Transaction Count by Category

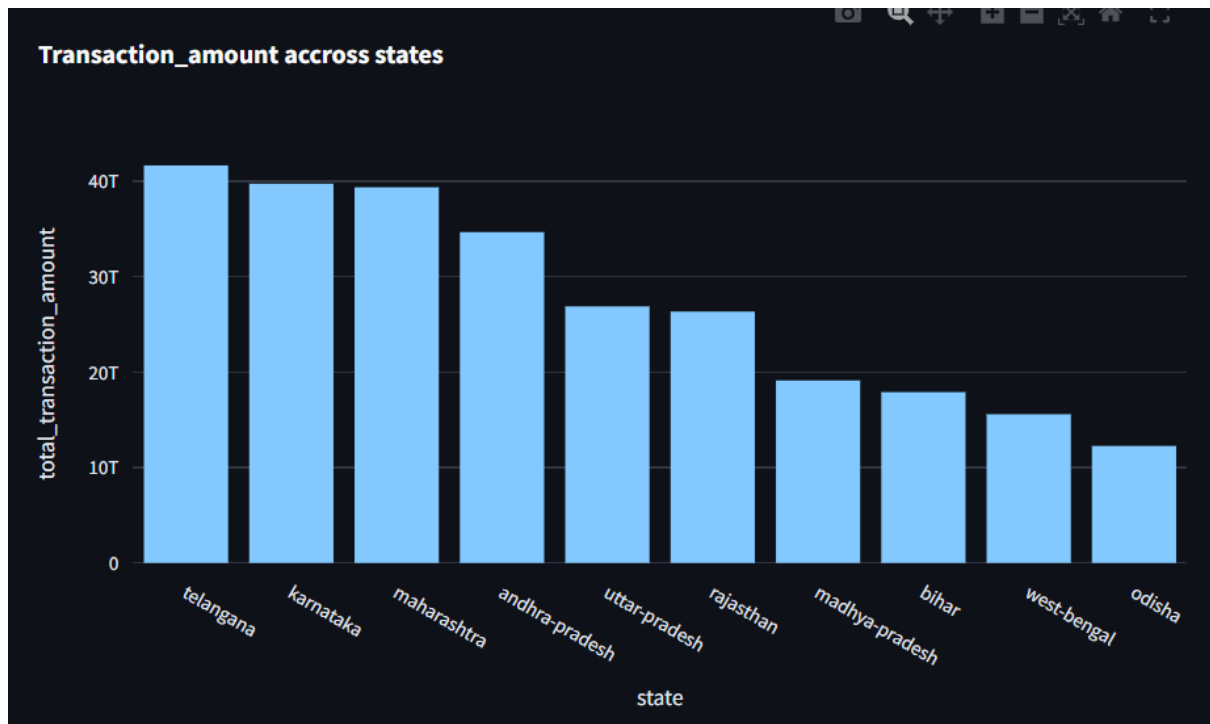
This pie chart illustrates the **volume of transactions** across different categories:

- **Merchant payments** lead with **54.5%**, indicating widespread usage for commercial purposes.
- **Peer-to-peer payments** account for **36.9%**, showing continued popularity for personal transfers.
- **Recharge & bill payments**, **Others**, and **Financial Services** together form less than **10%**.

#### Insight:

While **peer-to-peer** dominates in total transaction value, **merchant payments** top the chart in **volume**, suggesting a higher frequency of smaller-value transactions — typical in day-to-day retail usage.

- Top 10 states with highest transaction amount.



### Total Transaction Amount by State

This bar chart presents the **top 10 states by total transaction value**:

- **Telangana** leads with over ₹40 trillion in transaction volume.
- **Karnataka** and **Maharashtra** follow closely, each nearing ₹40T.
- Southern states like **Andhra Pradesh** also show strong performance, highlighting the region's digital adoption.
- States like **Odisha** and **West Bengal** appear at the lower end of the top 10 but still contribute significantly.

### Insight:

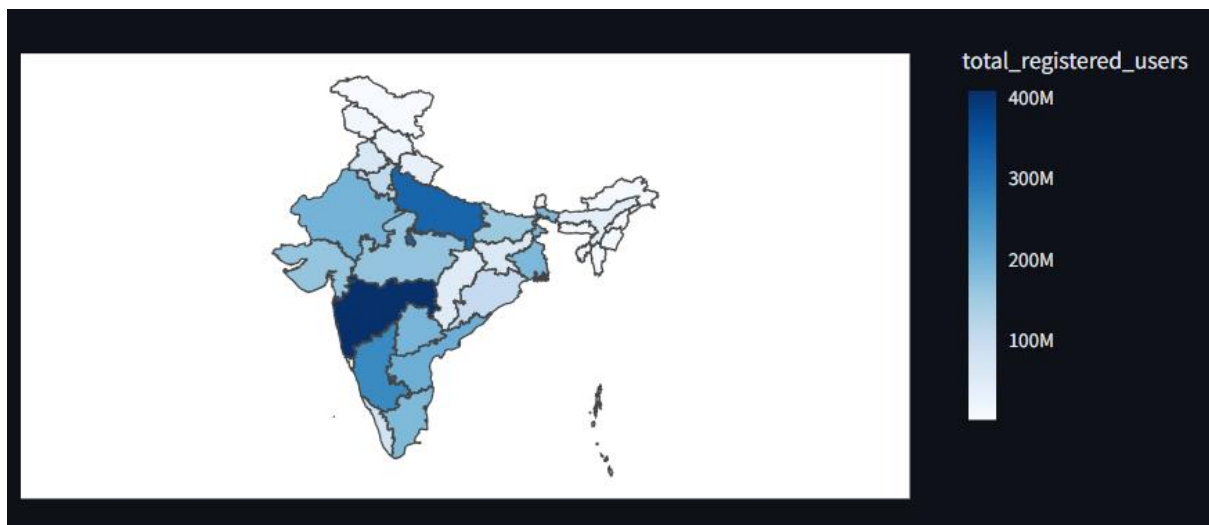
South Indian states dominate the digital transaction landscape, indicating robust infrastructure, tech penetration, and user adoption in those regions.

## 2. Device Dominance and User Engagement Analysis.

### Scenario

PhonePe aims to enhance user engagement and improve app performance by understanding user preferences across different device brands. The data reveals the number of registered users and app opens, segmented by device brands, regions, and time periods. However, trends in device usage vary significantly across regions, and some devices are disproportionately underutilized despite high registration numbers.

- **Total registered\_users analysis.**



### **Total Registered Users Across Indian States**

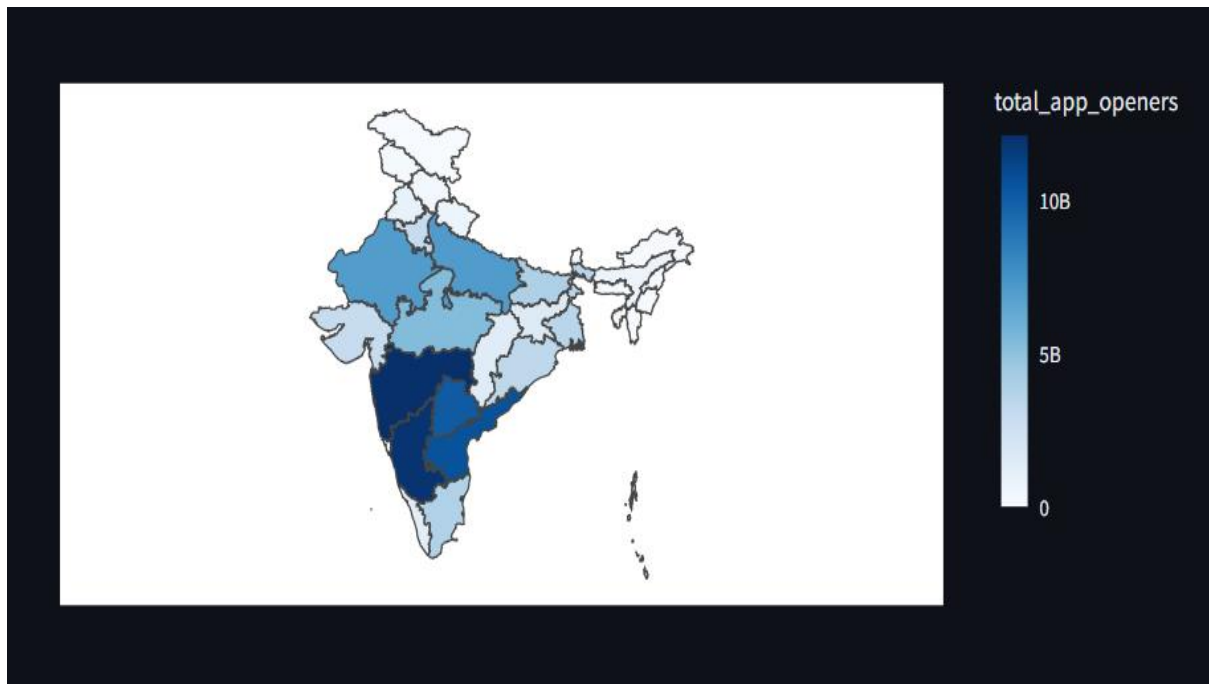
This choropleth map visualizes the number of registered users on a digital payments platform across India:

- Maharashtra and Karnataka are leading with 400M+ and 300M+ users respectively.
- Other states like Uttar Pradesh, Telangana, and Andhra Pradesh also have high user adoption.
- Northern and North-Eastern states show lighter shades, indicating relatively fewer registered users.

#### **Insight:**

The adoption of digital payments is highest in tech-forward and industrialized states, pointing to better internet access, urbanization, and fintech engagement.

- Total app\_openers analysis.



### Total App Openers Across Indian States

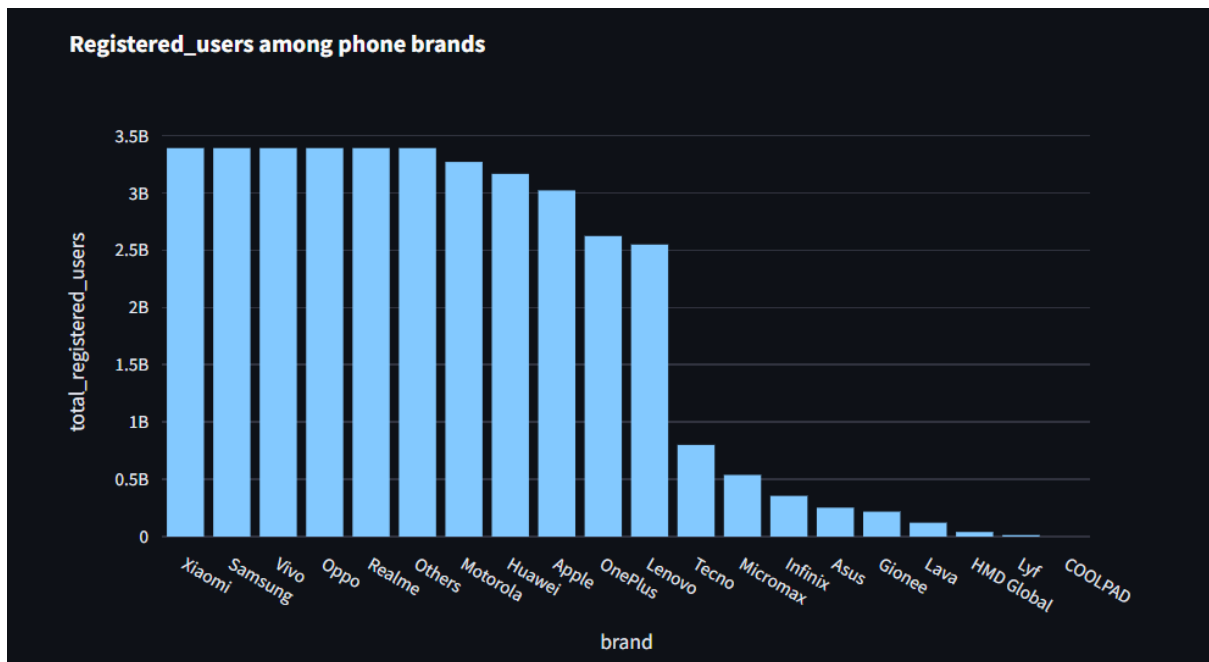
This map displays the total number of app opens (usage frequency) across different states:

- Karnataka, Telangana, and Andhra Pradesh show the darkest shades, each recording over 10 billion app opens.
- Other high-engagement states include Maharashtra and Tamil Nadu.
- States with lower activity are in lighter shades, indicating less frequent app usage.

#### Insight:

States with higher digital engagement and urban tech ecosystems are not just registering users but also showing strong daily/weekly app activity, reflecting high adoption and trust in digital financial services.

- Registered Users across Phone's brand



### Total Registered Users by Smartphone Brand

This bar chart shows how user registrations are distributed across various smartphone brands:

- Xiaomi, Samsung, Vivo, Oppo, and Realme lead the chart, each with over 3.4 billion registered users.
- Apple, OnePlus, and Huawei also hold a significant share, though slightly lower.
- Indian brands like Micromax, Lava, and Infinix show lower user engagement.
- Niche or declining brands like Lyf, HMD Global, and COOLPAD have the least number of users.

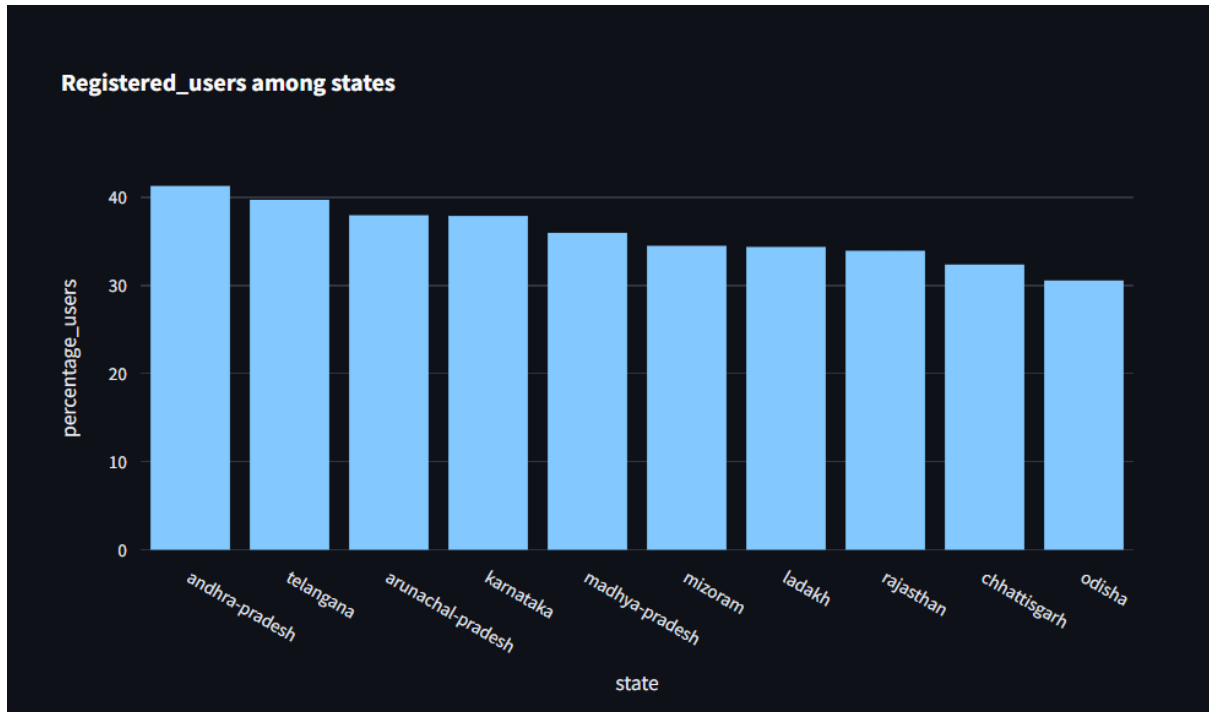
### Insight:

The dominance of mid-range Android smartphones (especially from Chinese OEMs) in India is evident. This reflects their wider market penetration, affordability, and popularity among digital payment users.



- **Percentage Users among States**

- **Top 10 highest percentage \_users among states**



### **Percentage of Registered Users by State**

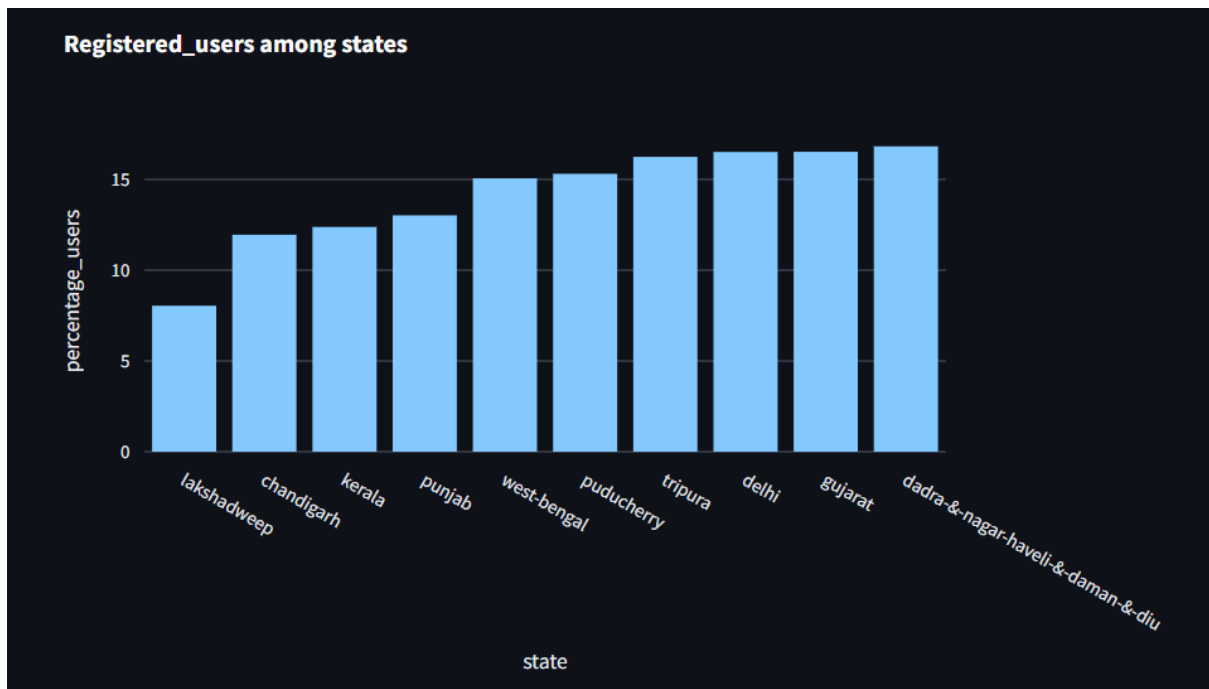
This bar chart represents the percentage of population registered on the platform across Indian states:

- Andhra Pradesh leads with over 40% of the population registered.
- Followed closely by Telangana, Arunachal Pradesh, and Karnataka, all above 38%.
- Other states like Madhya Pradesh, Mizoram, Ladakh, and Rajasthan hover around 34–36%.
- Odisha and Chhattisgarh have the lowest percentages among the top ten, with just over 30%.

#### **Insight:**

Southern states like Andhra Pradesh and Telangana show high user penetration, possibly due to better digital infrastructure, smartphone adoption, and proactive government initiatives in fintech. In contrast, eastern and central states show relatively lower digital inclusion.

- Top 10 lowest percentage users among states



### States with Lower Percentage of Registered Users

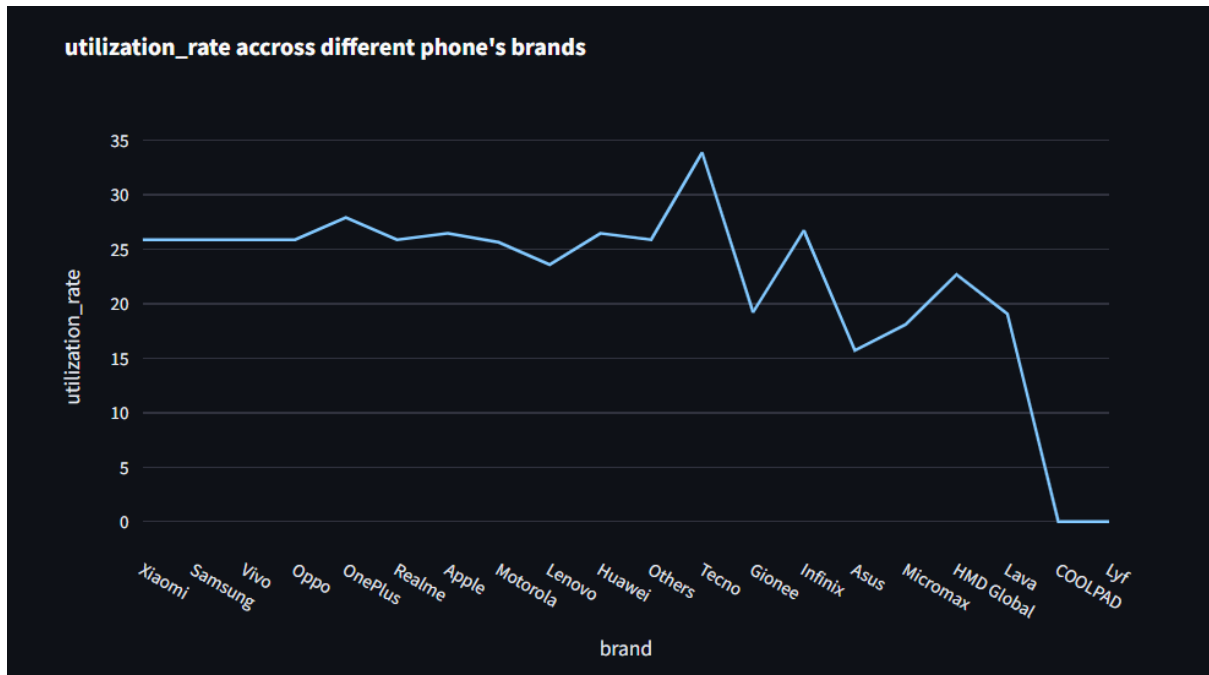
This bar chart shows states and union territories with the lowest user registration percentages on the platform:

- Lakshadweep records the lowest penetration, under 10%.
- Chandigarh, Kerala, and Punjab hover between 12% to 13%.
- Union Territories like Dadra & Nagar Haveli & Daman & Diu, Delhi, and Puducherry show relatively better registration in this group, at around 16.5–17%.

#### Insight:

Despite being highly urbanized, some UTs and states like **Chandigarh and Kerala** show **lower-than-expected registration** rates. This may indicate either alternative digital preferences or gaps in platform outreach/targeting. On the other hand, **Delhi and Gujarat** are approaching the **mid-range benchmark** in user adoption.

- Utilization \_rate across mobile brands



### Utilization Rate Across Phone Brands

This line chart illustrates the percentage of users actively utilizing the service/platform across various phone brands.

Observations:

- Tecno leads with the highest utilization rate (~34%), showing strong engagement despite not being the most popular brand.
- Mainstream brands like Xiaomi, Samsung, Vivo, Oppo, OnePlus, and Realme maintain a consistent utilization rate of around 26–28%.
- A sharp decline is visible for brands like:
  - Asus and Infinix (~16–18%)
  - Lyf and Coolpad (0%) – likely indicating inactive user bases or low platform compatibility.

### Insight:

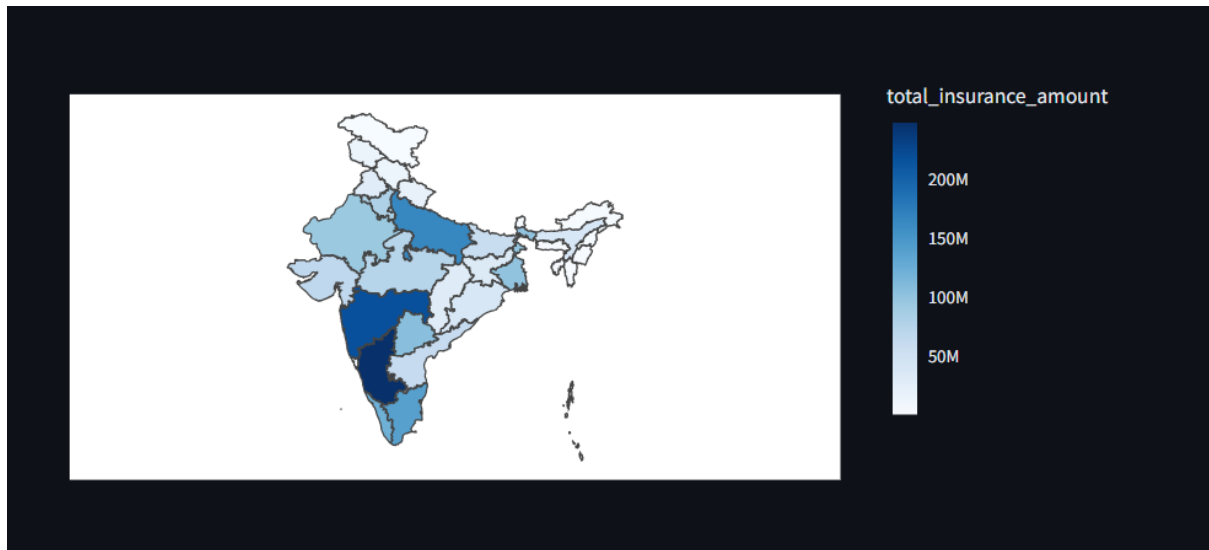
Brands with high registered user counts do not always translate into high usage rates. For instance, while Xiaomi and Samsung dominate in user base, Tecno and Infinix show unexpectedly higher or competitive utilization rates. This contrast highlights potential opportunities for targeted engagement campaigns on underutilized yet widely adopted devices.

### 3 .Insurance Penetration and Growth Potential Analysis

#### Scenario

PhonePe has ventured into the insurance domain, providing users with options to secure various policies. With increasing transactions in this segment, the company seeks to analyze its growth trajectory and identify untapped opportunities for insurance adoption at the state level. This data will help prioritize regions for marketing efforts and partnerships with insurers.

- **Insurance\_amount Analysis**



#### **Total Insurance Amount Across Indian States**

This choropleth map visualizes the distribution of total insurance amounts across various Indian states.

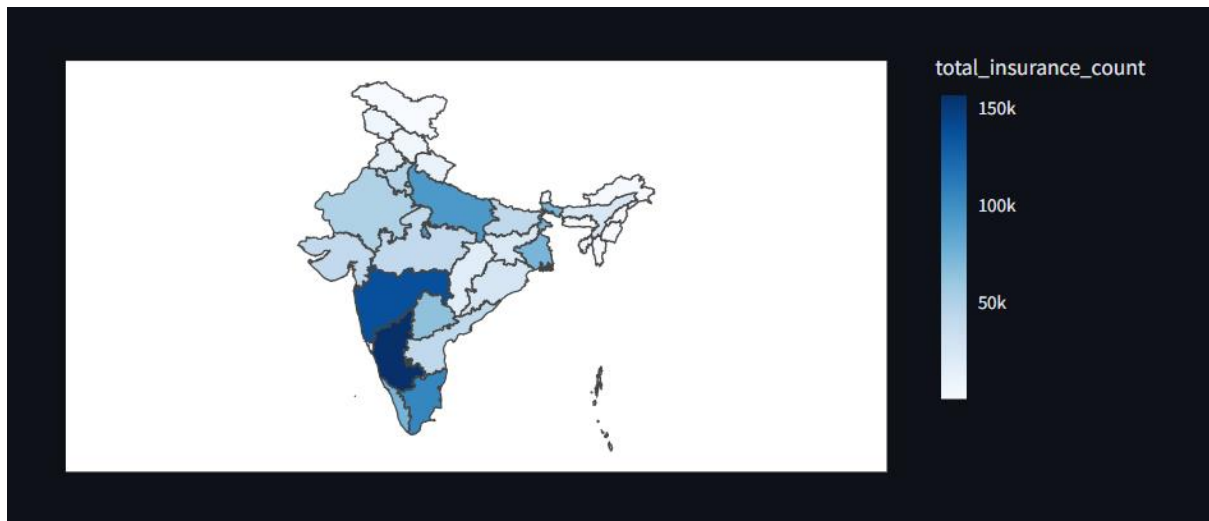
Observations:

- High insurance activity is concentrated in:
  - Karnataka and Maharashtra, leading with over ₹200M, indicating strong digital insurance adoption.
  - Tamil Nadu, Telangana, and Gujarat also show moderately high values (₹100M–₹150M).
- Low engagement (lighter shades) observed in:
  - North-Eastern states, Bihar, and Jammu & Kashmir, suggesting either limited access or awareness of digital insurance.

#### **Insight:**

States with higher digital infrastructure and urban populations are more likely to engage in insurance via digital platforms. This suggests potential growth opportunities in underrepresented regions, particularly with awareness and accessibility initiatives.

- **Insurance\_count Analysis**



### **Total Insurance Count Across Indian States**

This choropleth map illustrates the distribution of total insurance counts across Indian states for the selected year and quarter.

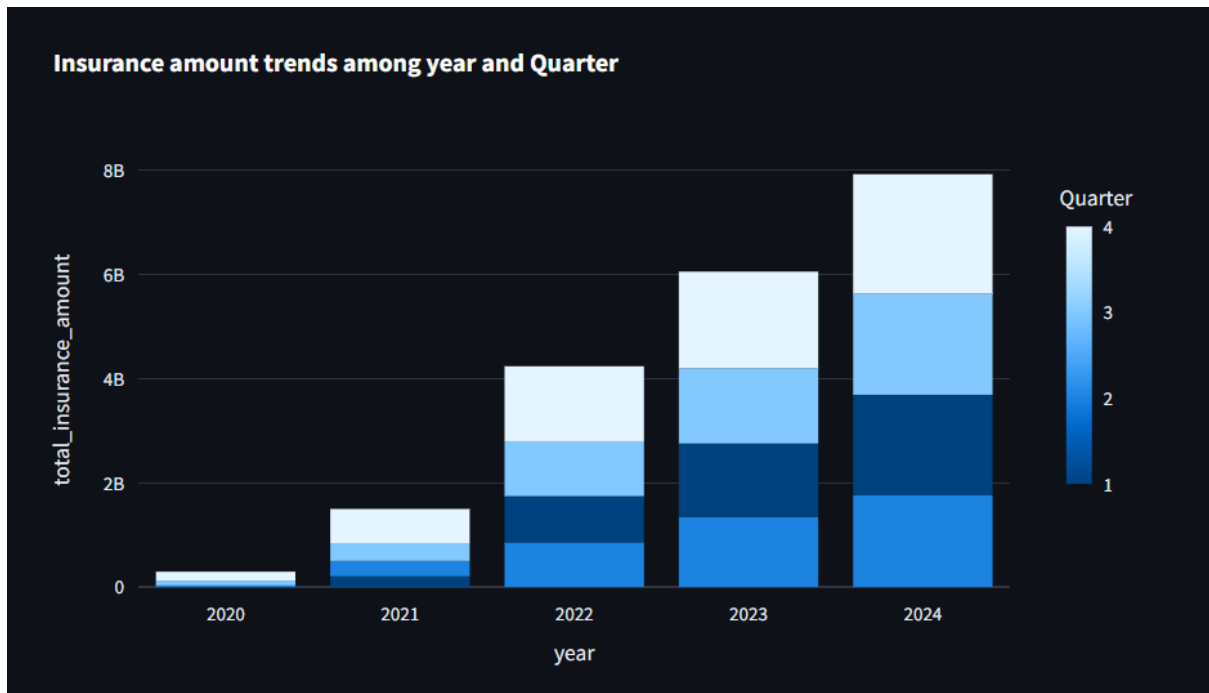
#### **Observations:**

- High insurance activity is concentrated in:
  - Southern states such as Karnataka, Tamil Nadu, and Telangana, leading with counts exceeding 150k, reflecting strong adoption of insurance products.
  - States like Maharashtra and Andhra Pradesh also display significant insurance uptake.
- Lower insurance counts (lighter shades) are observed in:
  - Northern and North-Eastern states, including Jammu & Kashmir and Bihar, indicating potential gaps in insurance penetration.

#### **Insight:**

States with advanced digital infrastructure and larger urban populations tend to have higher insurance engagement. This highlights promising growth opportunities in less penetrated regions through focused awareness campaigns and improved accessibility to insurance services.

- Insurance trends among Years and Quarters



### Insurance Amount Trends Over Years and Quarters

This stacked bar chart visualizes the total insurance amount distributed across years from 2020 to 2024, segmented by quarters.

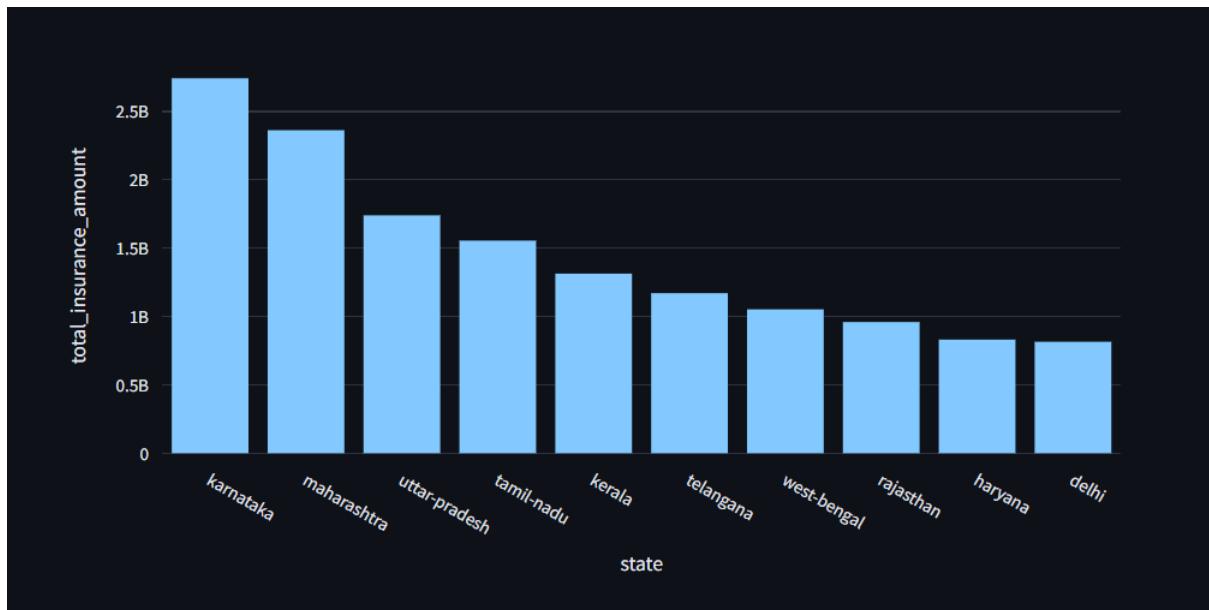
#### Observations:

- There is a consistent and significant growth in total insurance amounts year-over-year, indicating a strong upward trend in insurance adoption.
- Each year's insurance amount is divided into four quarters, with the fourth quarter (lightest blue) consistently contributing the largest share.
- The increasing height of the bars highlights accelerating growth, especially from 2022 onwards, suggesting expanding market penetration and possibly improved digital insurance accessibility.

#### Insight:

The rising trend underscores growing consumer confidence and digital adoption in the insurance sector. The substantial contribution of the fourth quarter could indicate seasonal spikes or effective year-end sales initiatives. Continued focus on quarter-wise performance can help tailor marketing and policy rollouts for optimized impact.

- Top 10 States that contribute to highest insurance amount.



### Total Insurance Amount by State

This bar chart highlights the total insurance amounts across the top 10 Indian states.

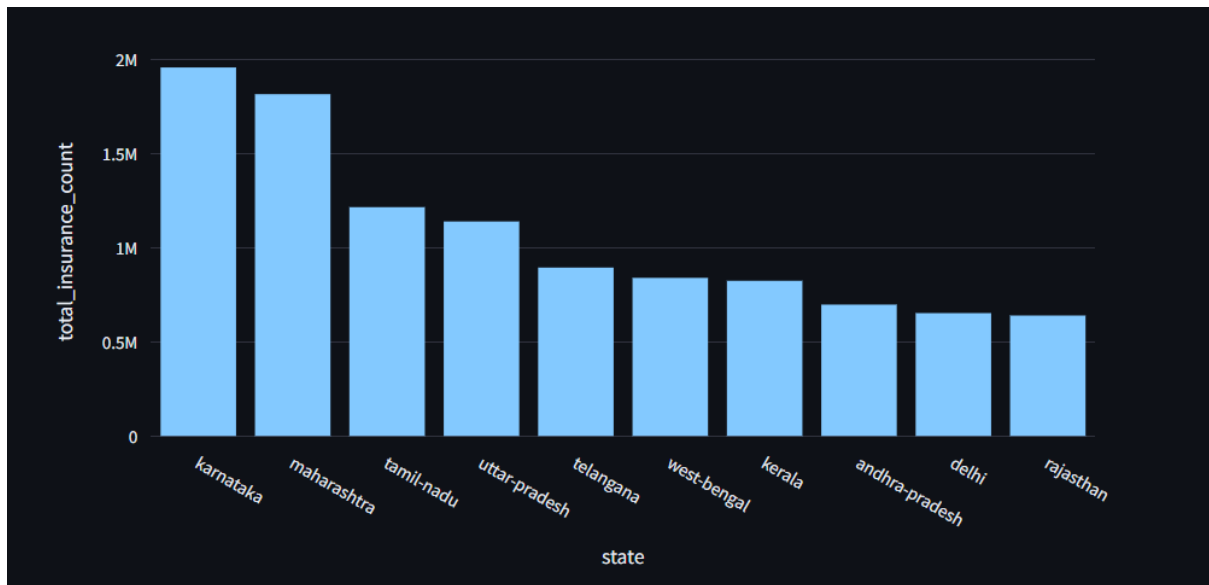
#### Observations:

- Karnataka leads with the highest insurance amount, followed closely by Maharashtra and Uttar Pradesh.
- Southern states like Tamil Nadu, Kerala, and Telangana also feature prominently, reflecting strong insurance market activity.
- Northern and western states such as Rajasthan, Haryana, and Delhi show comparatively lower insurance amounts among the top 10.

#### Insight:

The data suggests that states with higher urbanization and digital infrastructure tend to have greater insurance adoption. This insight can help insurers focus marketing and outreach efforts on states with untapped potential for growth.

- Top 10 states that contribute to highest insurance count



### Total Insurance Count by State.

This bar chart displays the total number of insurance policies across the top 10 Indian states.

#### Observations:

- Karnataka and Maharashtra lead in insurance counts, each exceeding 1.5 million policies.
- States like Tamil Nadu, Uttar Pradesh, and Telangana also show substantial numbers, indicating active insurance markets.
- Northern and eastern states such as Delhi, Rajasthan, and West Bengal have relatively lower insurance counts among the top 10.

#### Insight:

The higher insurance counts in more urbanized and economically developed states highlight the correlation between regional development and insurance penetration. This data can guide insurers to tailor strategies to increase awareness and policy uptake in states with lower counts.



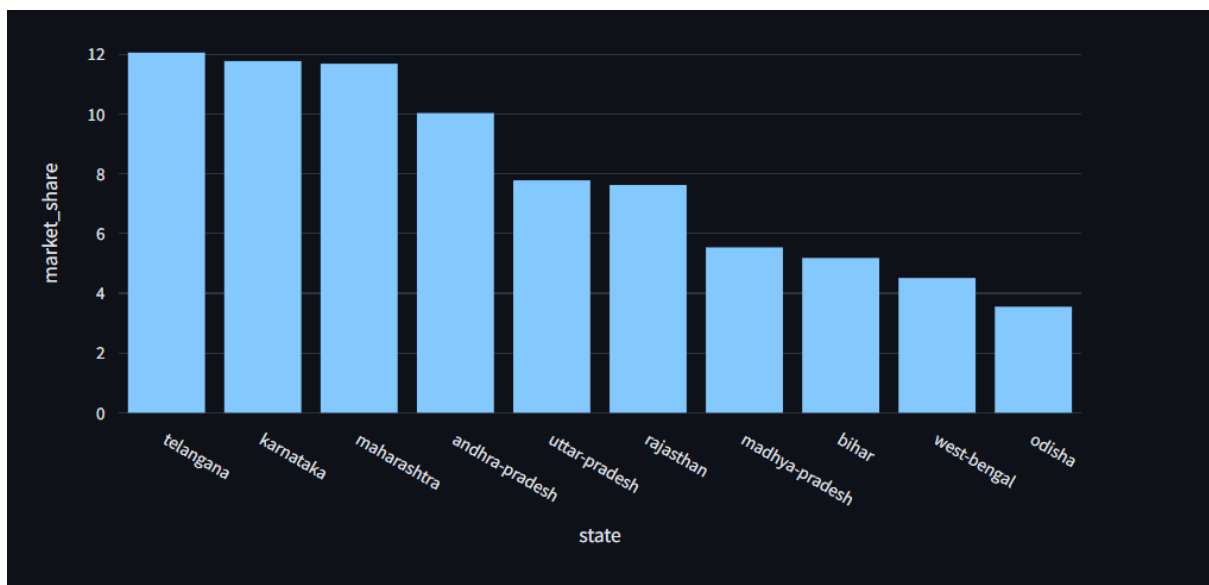
## 4. Transaction Analysis for Market Expansion

### Scenario

PhonePe operates in a highly competitive market, and understanding transaction dynamics at the state level is crucial for strategic decision-making. With a growing number of transactions across different regions, the company seeks to analyse its transaction data to identify trends, opportunities, and potential areas for expansion.

- **Market Share benchmarking**

**Top 10 States with highest market share.**



### Insurance Market Share by State

This bar chart illustrates the percentage market share held by different Indian states in the insurance sector.

#### Observations:

- Telangana, Karnataka, and Maharashtra dominate the market, each contributing around 12% of the total market share.
- Andhra Pradesh, Uttar Pradesh, and Rajasthan follow, holding moderate shares between 7% and 10%.
- States like Madhya Pradesh, Bihar, West Bengal, and Odisha have comparatively smaller market shares, below 6%.

#### Insight:

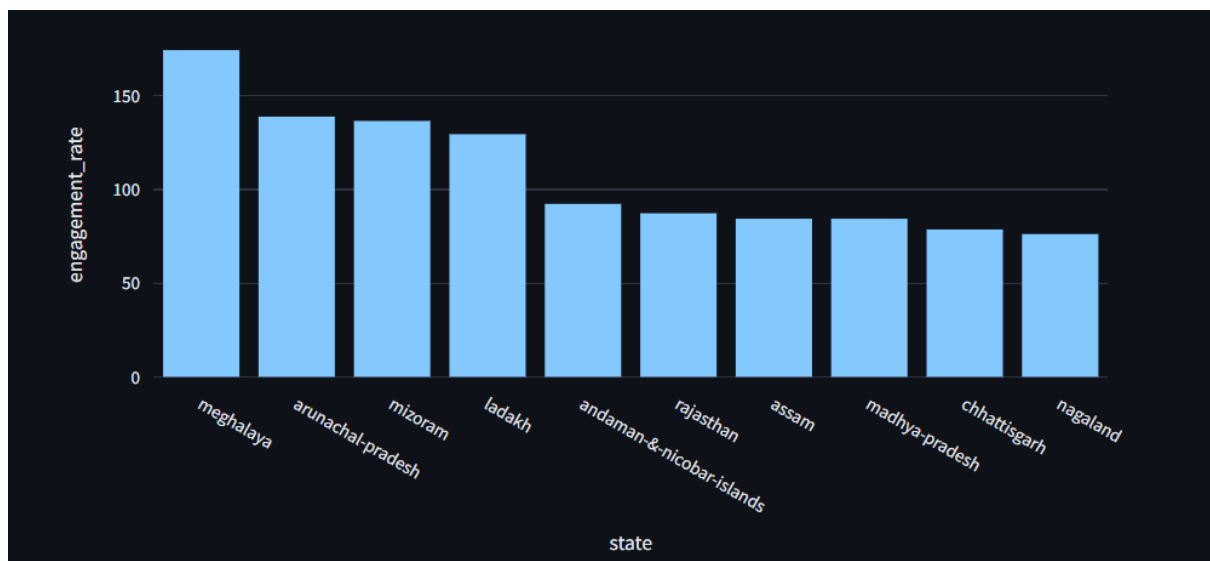
The leading market share states indicate regions with higher consumer engagement and competitive insurance markets. These insights can help insurance providers focus marketing and product development efforts strategically to expand in lower-share states.

## 5. User Engagement and Growth Strategy.

### Scenario

PhonePe seeks to enhance its market position by analyzing user engagement across different states and districts. With a significant number of registered users and app opens, understanding user behavior can provide valuable insights for strategic decision-making and growth opportunities.

- **Top 10 states with highest Engagement Rate**



### **Digital Insurance Engagement Rate by State**

This bar chart displays the digital insurance engagement rate across various Indian states.

#### **Observations:**

- Meghalaya leads with the highest engagement rate, surpassing 160, indicating strong user interaction with digital insurance platforms.
- Arunachal Pradesh, Mizoram, and Ladakh follow closely with engagement rates above 130.
- States like Andaman & Nicobar Islands, Rajasthan, Assam, Madhya Pradesh, Chhattisgarh, and Nagaland show moderate but consistent engagement rates around 80 to 100.

#### **Insight:**

Higher engagement rates in these states suggest a growing acceptance and active participation in digital insurance services. These trends highlight opportunities for insurers to deepen penetration in states with lower engagement through targeted awareness and user-friendly solutions.