



PHONEPE PULSE DATA ANALYTICS

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OVERVIEW

This project a comprehensive data analytics exploration of PhonePe's ecosystem, leveraging aggregated and mapped datasets to derive actionable insights for business growth, user engagement, and market strategies. It focuses on transaction dynamics, device adoption, insurance penetration, regional expansion opportunities, and user behavior patterns across India.

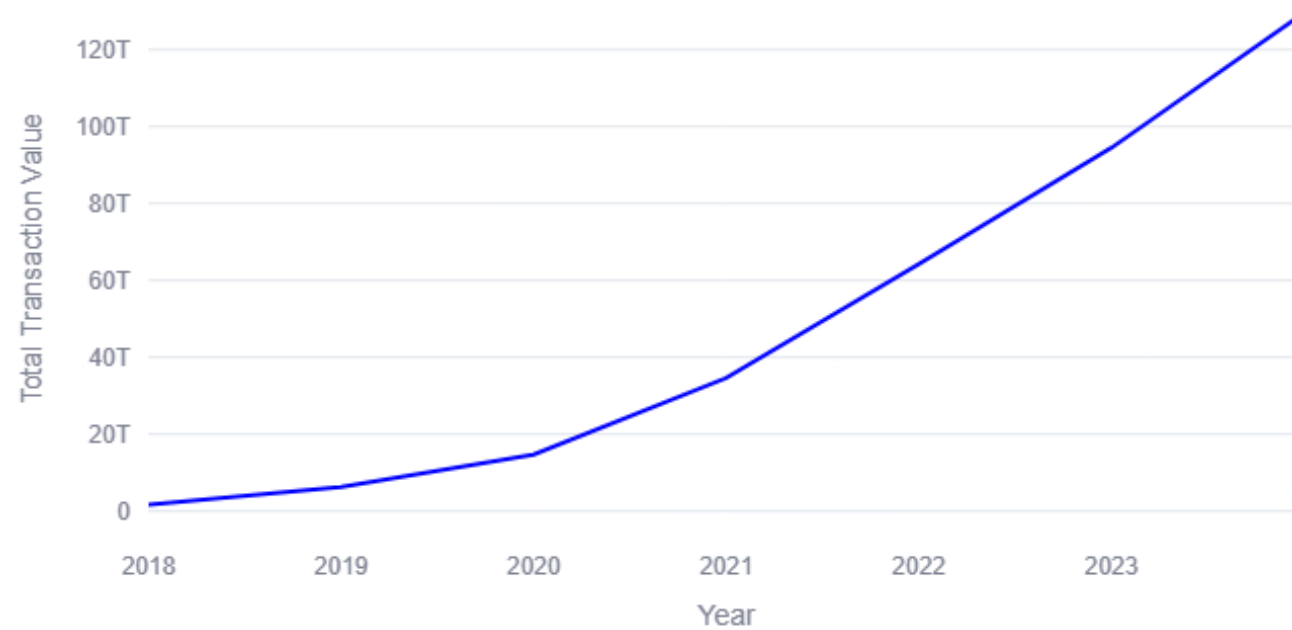
CASE STUDIES

- Decoding Transaction Dynamics on PhonePe
- Device Dominance and User Engagement Analysis
- Insurance Penetration and Growth Potential Analysis
- Transaction Analysis for Market Expansion
- User Engagement and Growth Strategy

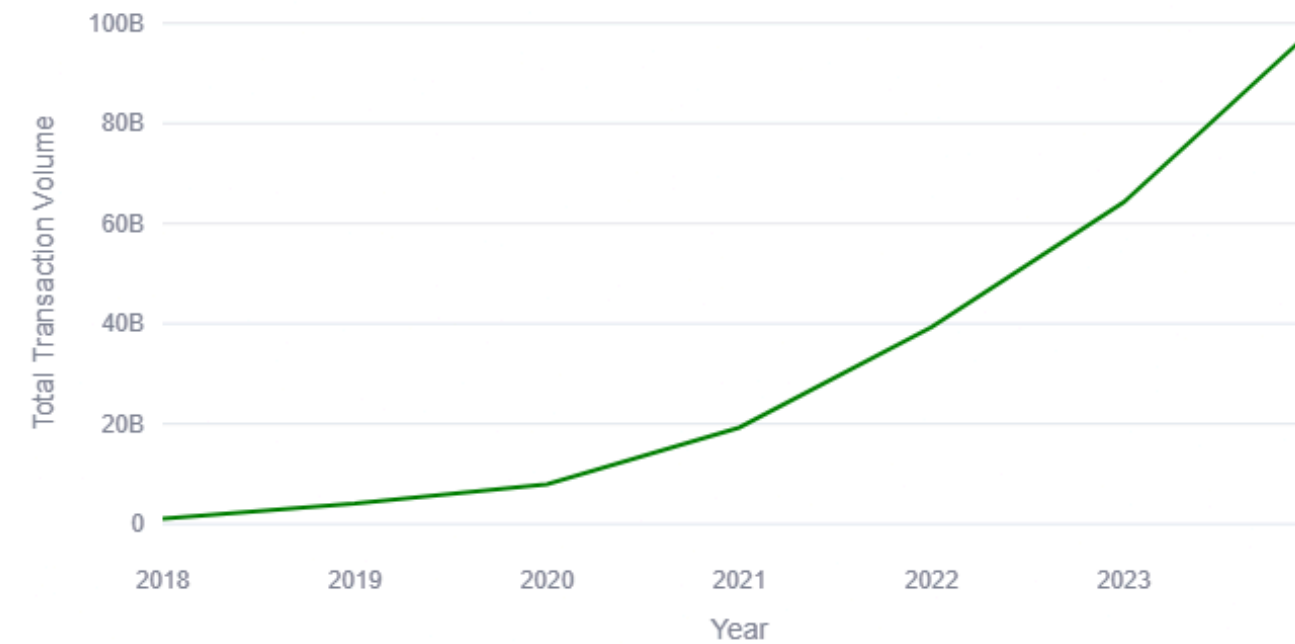
1. DECODING TRANSACTION DYNAMICS ON PHONEPE

PHONEPE TRANSACTION GROWTH OVER TIME

Total Transaction Value Growth (₹)



Total Transaction Volume Growth



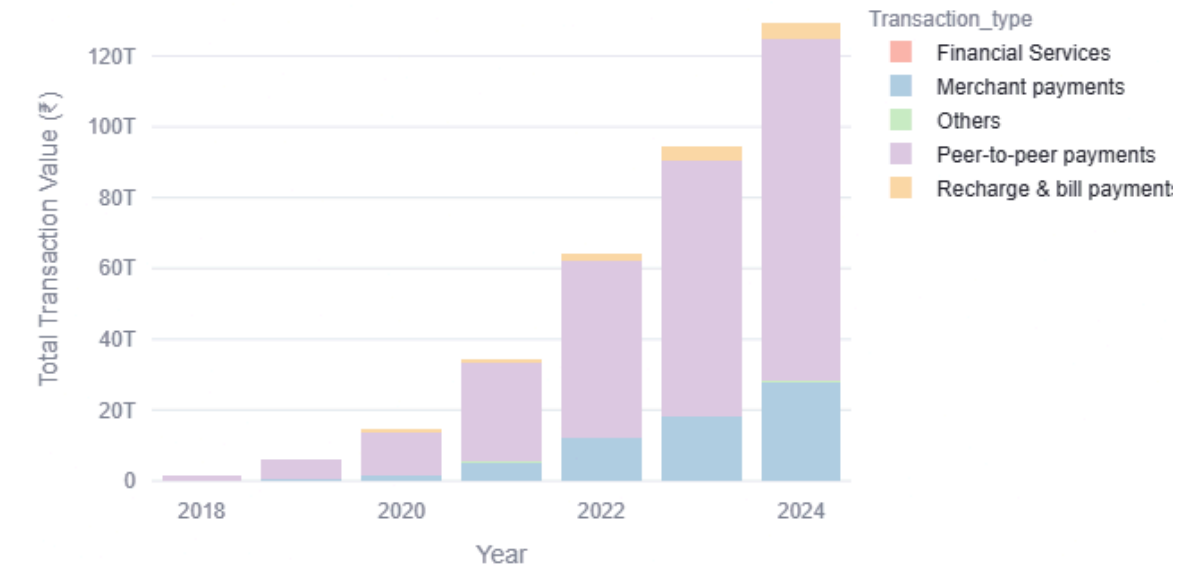
- The graph shows a significant upward trend in both total transaction value and volume for PhonePe from 2018 to 2023, with a notable acceleration post-2020.

1. DECODING TRANSACTION DYNAMICS ON PHONEPE

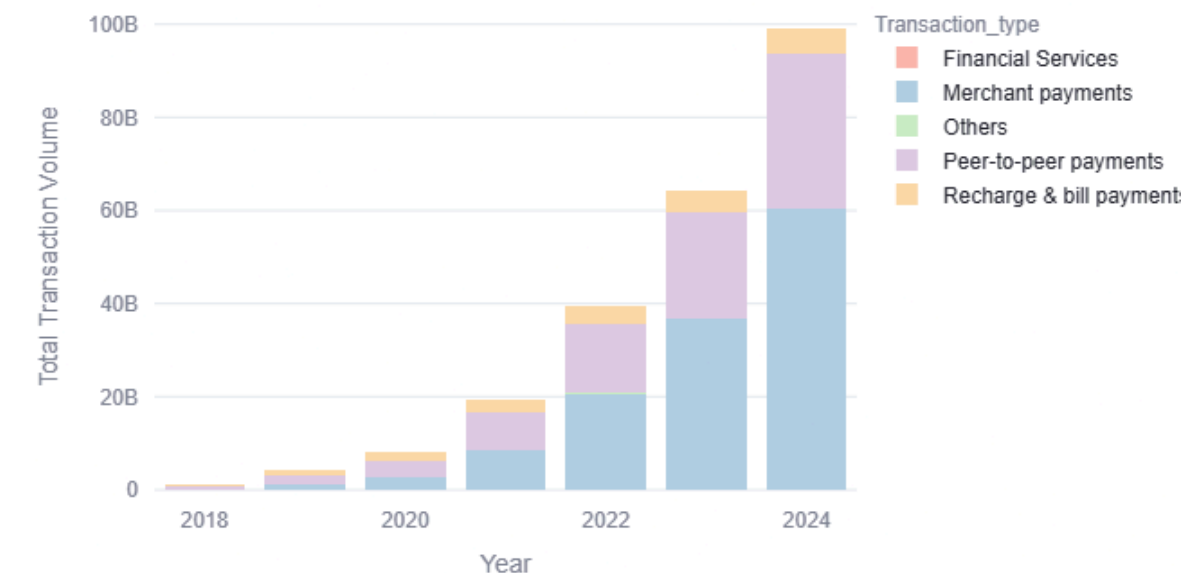
PAYMENT CATEGORY GROWTH OVER TIME

- The graphs indicate a steady increase in transaction value and volume across payment categories from 2018 to 2024, with merchant payments and peer-to-peer transactions showing the most significant growth. Financial services and recharge/bill payments also contribute notably, though their growth rates appear more moderate compared to the leading categories.

Transaction Value by Category Over Years



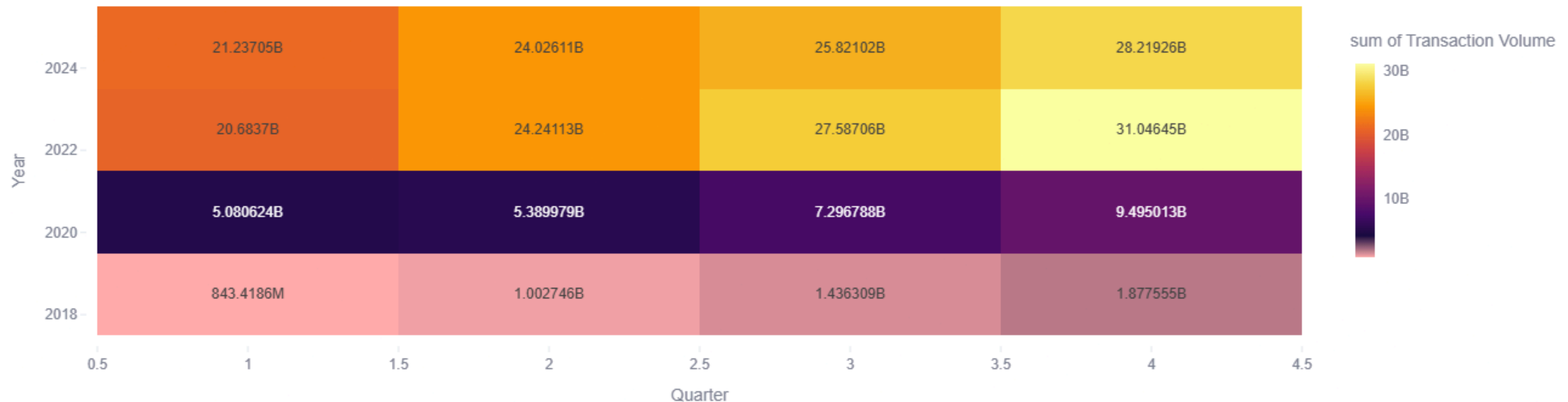
Transaction Volume by Category Over Years



1. DECODING TRANSACTION DYNAMICS ON PHONEPE

SEASONAL TRENDS AND FESTIVE SPIKES IN TRANSACTION ACTIVITY

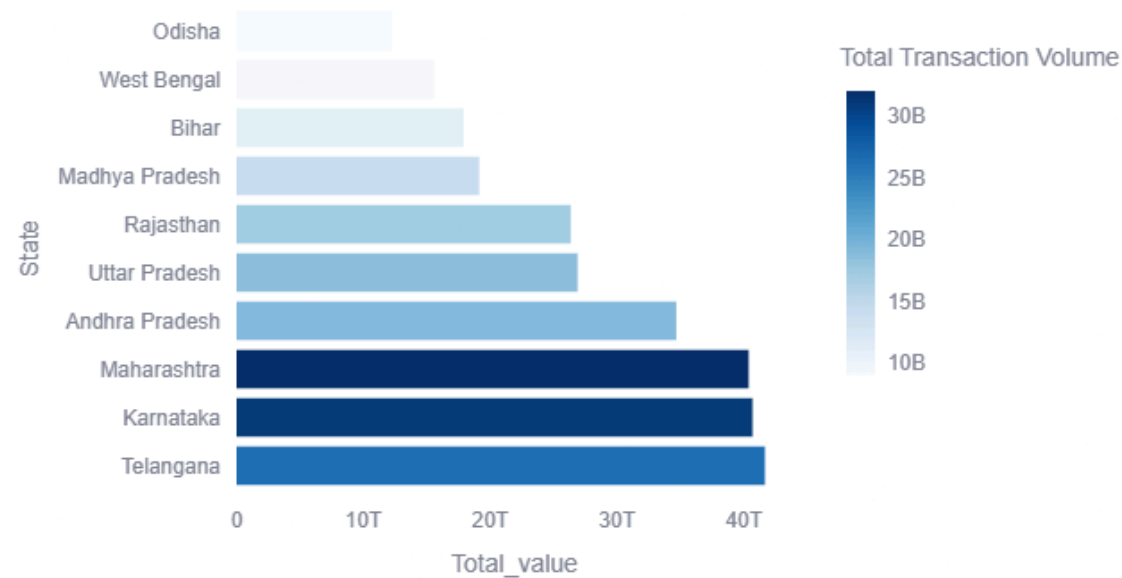
Heatmap: Total Transaction Volume by Quarter and Year



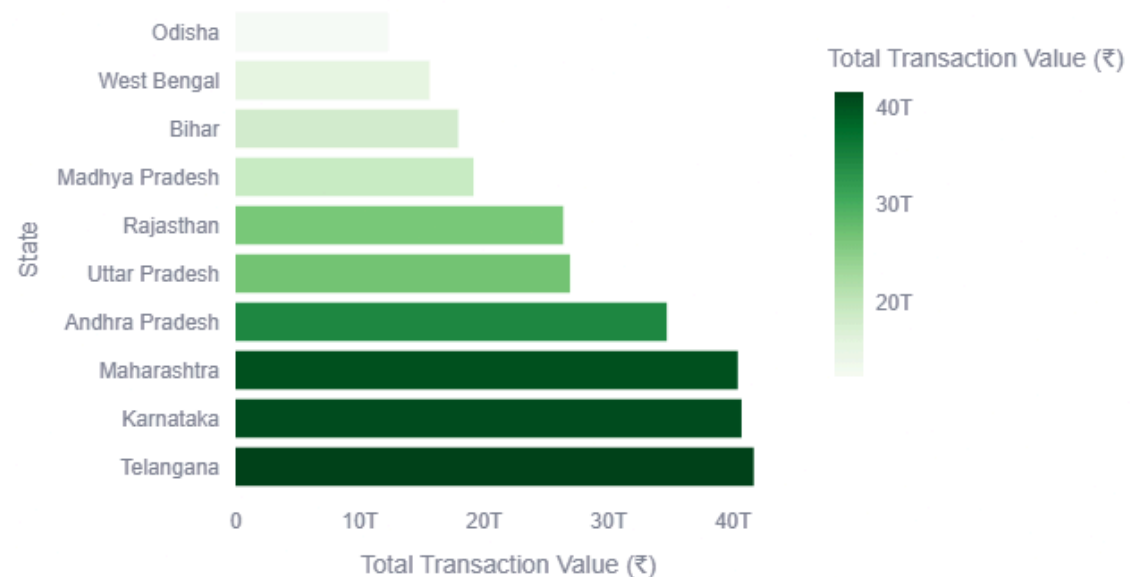
- The heatmap reveals a clear pattern of escalating transaction volumes year-over-year from 2018 to 2024, with consistent spikes in festive quarters, particularly peaking in Q4 each year-e.g., 1.88B in 2018 rising to 28.3B in 2024-driven by seasonal events like Diwali. This underscores the impact of festivals on PhonePe's activity, where Q4 volumes exceed non-festive periods by 50-100% annually, highlighting opportunities for targeted promotion.

1. DECODING TRANSACTION DYNAMICS ON PHONEPE

Top 10 States by Total Transaction Volume



Top 10 States by Total Transaction Value



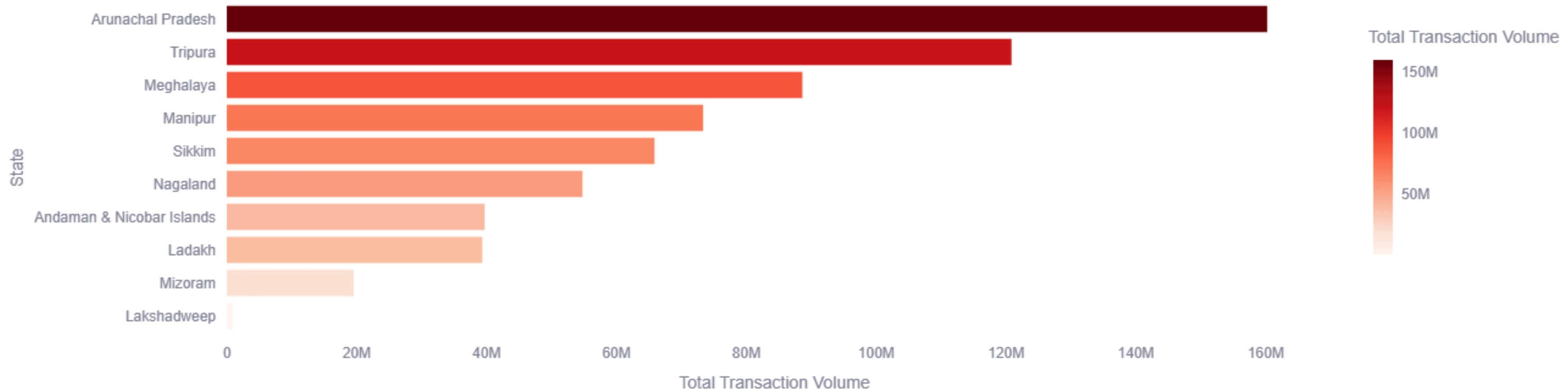
10 STATES DRIVING TRANSACTION GROWTH

- The graphs highlight Telangana, Karnataka and Maharashtra as the top contributors to both transaction value and volume indicating strong market dominance. Uttar Pradesh, Andhra Pradesh and Rajasthan also rank high, with significant value and volume reflecting robust regional activity. Other states like Madhya Pradesh and Bihar show moderate but growing contributions, suggesting emerging potential in these markets.

1. DECODING TRANSACTION DYNAMICS ON PHONEPE

STATES WITH DECLINING OR STAGNANT TRANSACTION

States with Lowest Total Transaction Volume

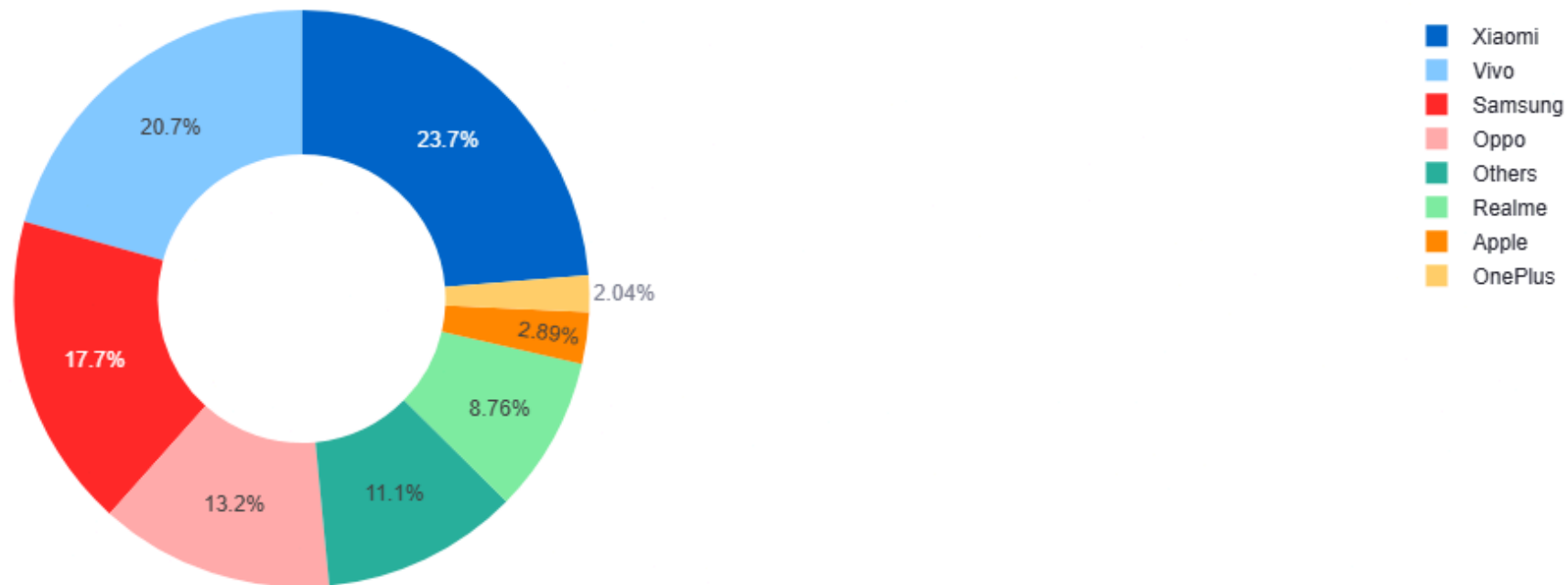


- The graph highlights Arunachal Pradesh as having the lowest total transaction volume among the listed states, with a stagnant trend at approximately 160M, indicating minimal PhonePe activity. Tripura and Meghalaya follow with volumes around 140M and 120M respectively, suggesting a similar lack of growth or decline in transaction trends. States like Mizoram and Lakshadweep show the least engagement, with volumes below 20M, pointing to significant untapped potential or market challenges in these regions.

2. DEVICE DOMINANCE AND USER ENGAGEMENT ANALYSIS

DEVICE BRAND DOMINANCE AMONG PHONEPE USERS

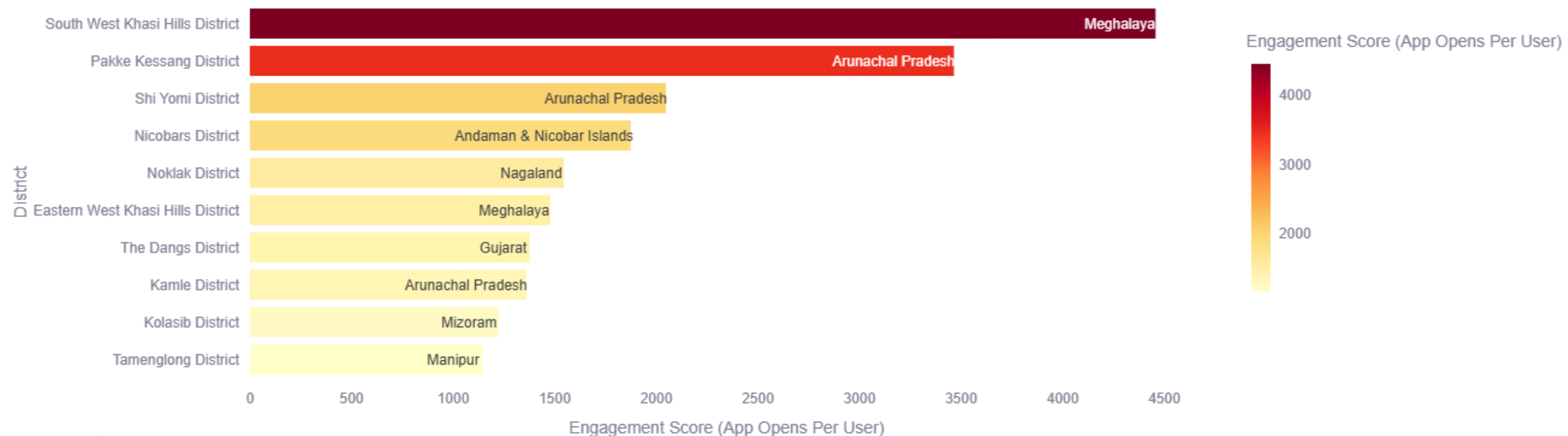
Registered Users by Device Brand



- The donut chart shows Xiaomi and Vivo as the dominant device brands among PhonePe users, collectively accounting for 50.7% of registered users as of October 2025. Samsung and Oppo follow with 17.7% and 13.2% respectively, while premium brands like Apple and OnePlus have smaller shares at 2.04% and 2.8%. This distribution highlights a strong preference for budget and mid-range devices among PhonePe's user base.

2. DEVICE DOMINANCE AND USER ENGAGEMENT ANALYSIS

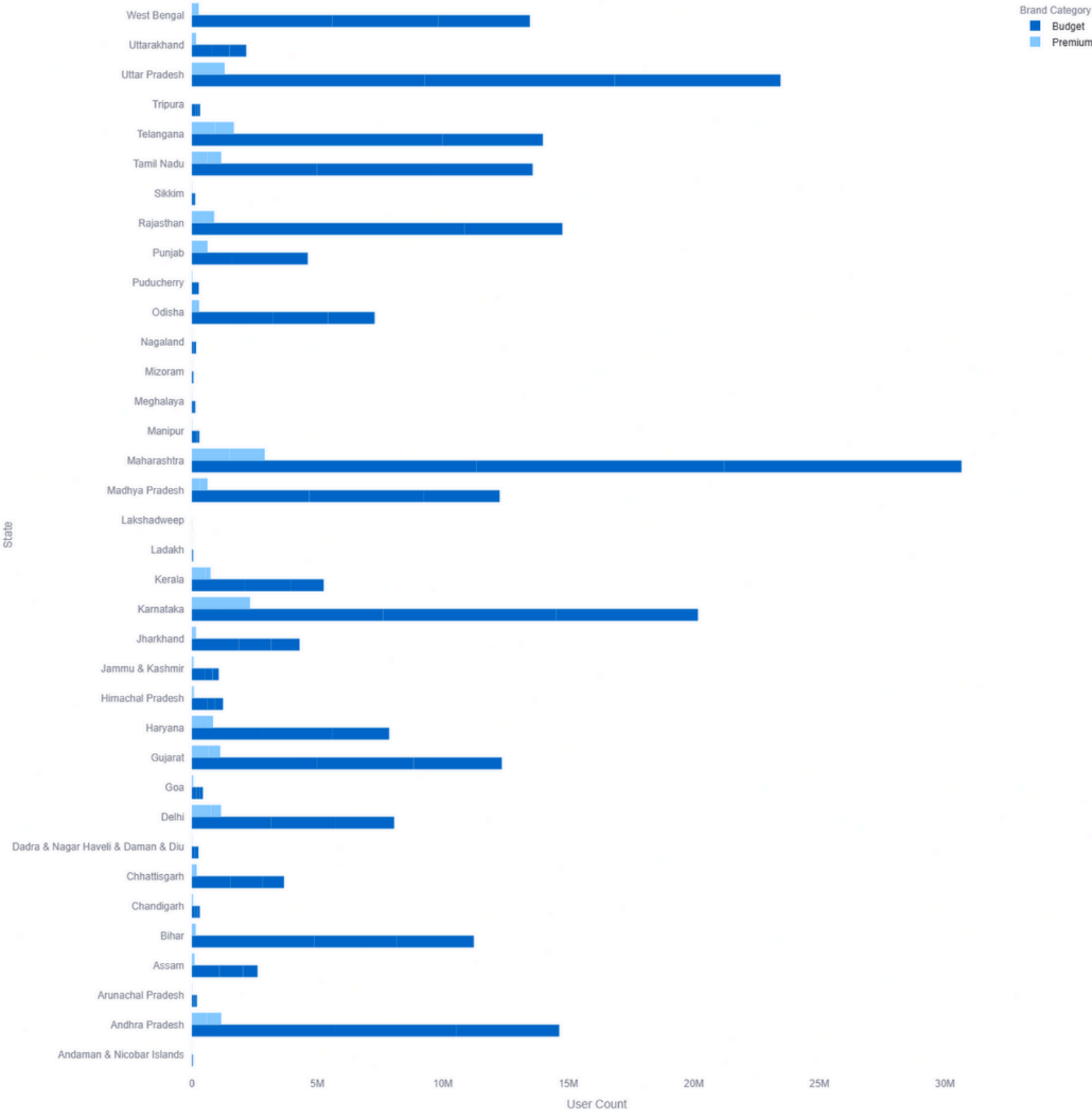
TOP 10 DISTRICTS BY USER ENGAGEMENT



- The bar chart indicates that South West Khasi Hills District in Meghalaya leads with the highest engagement score, exceeding 4000 app opens per user, reflecting exceptional user activity as of October 2025. Pakke-Kessang District in Arunachal Pradesh follows with a strong score above 3500, while districts like Shi Yomi and Nicobars show moderate engagement around 2000-3000, suggesting varying levels of user interaction. Districts such as Tamenglong in Manipur and Kolasib in Mizoram exhibit the lowest engagement, below 500, highlighting potential areas for improving user retention strategies.

2. DEVICE DOMINANCE AND USER ENGAGEMENT ANALYSIS

Premium vs Budget Brand Preferences by State



REGIONAL PREFERENCES: PREMIUM VS BUDGET BRANDS

- Nation wise Budget brand phone users are predominantly high while comparatively to premium brand phone users, with Maharashtra leading, followed by Karnataka, Uttar Pradesh, and Telangana. Premium phone users remain minimal, with reporting the lowest counts (under 5M), highlighting a strong preference for affordable devices nationwide.

2. DEVICE DOMINANCE AND USER ENGAGEMENT ANALYSIS

UNDERPERFORMING BRANDS: HIGH USERS, LOW MARKET PENETRATION

Brand User Counts vs Market Penetration



- Xiaomi stands out with ~90M users yet only ~0.25% penetration, followed by Vivo (~80M users, ~0.2%) and Samsung (~68M users, ~0.18%). Brands like Lenovo Global and Gionee show even lower penetration (<0.05%) despite moderate user bases (10-20M), indicating untapped expansion opportunities as of October 2025.

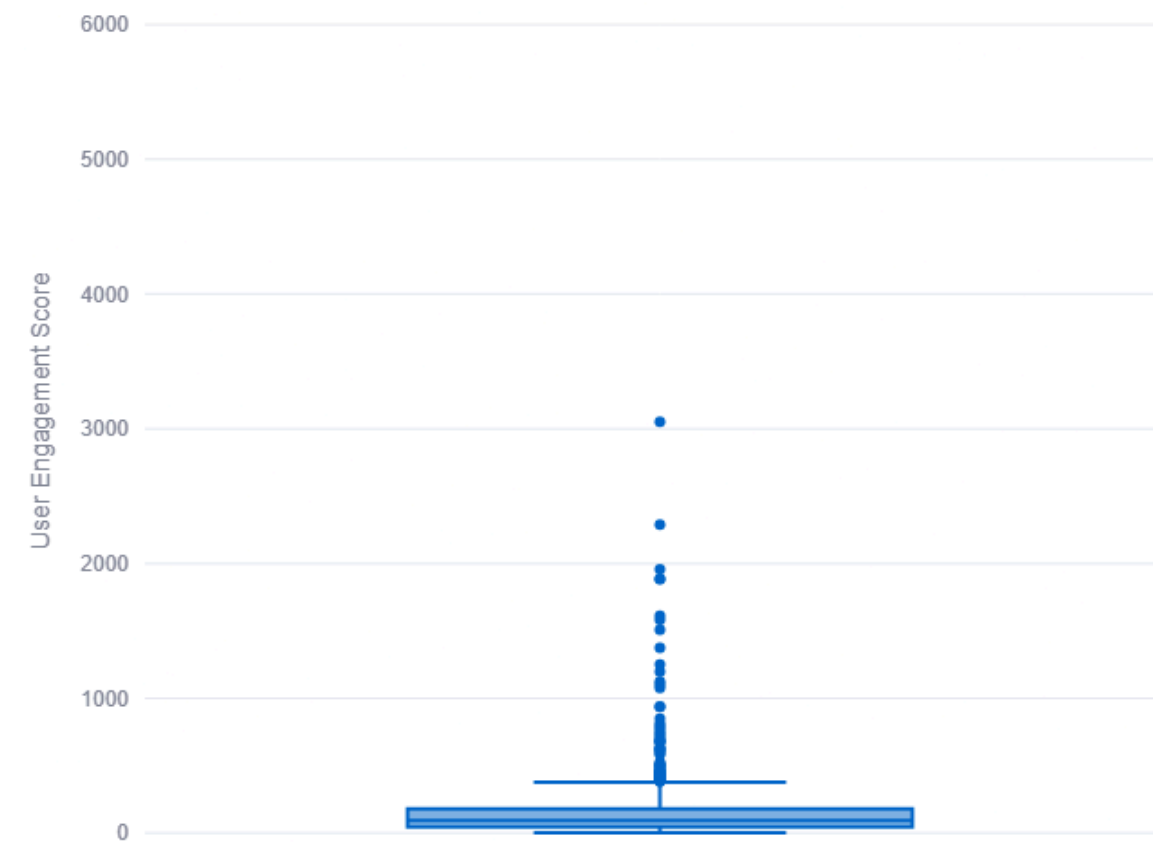
2. DEVICE DOMINANCE AND USER ENGAGEMENT ANALYSIS

USER ENGAGEMENT: METRO VS NON-METRO DISTRICTS

Metro Districts



Non-Metro Districts

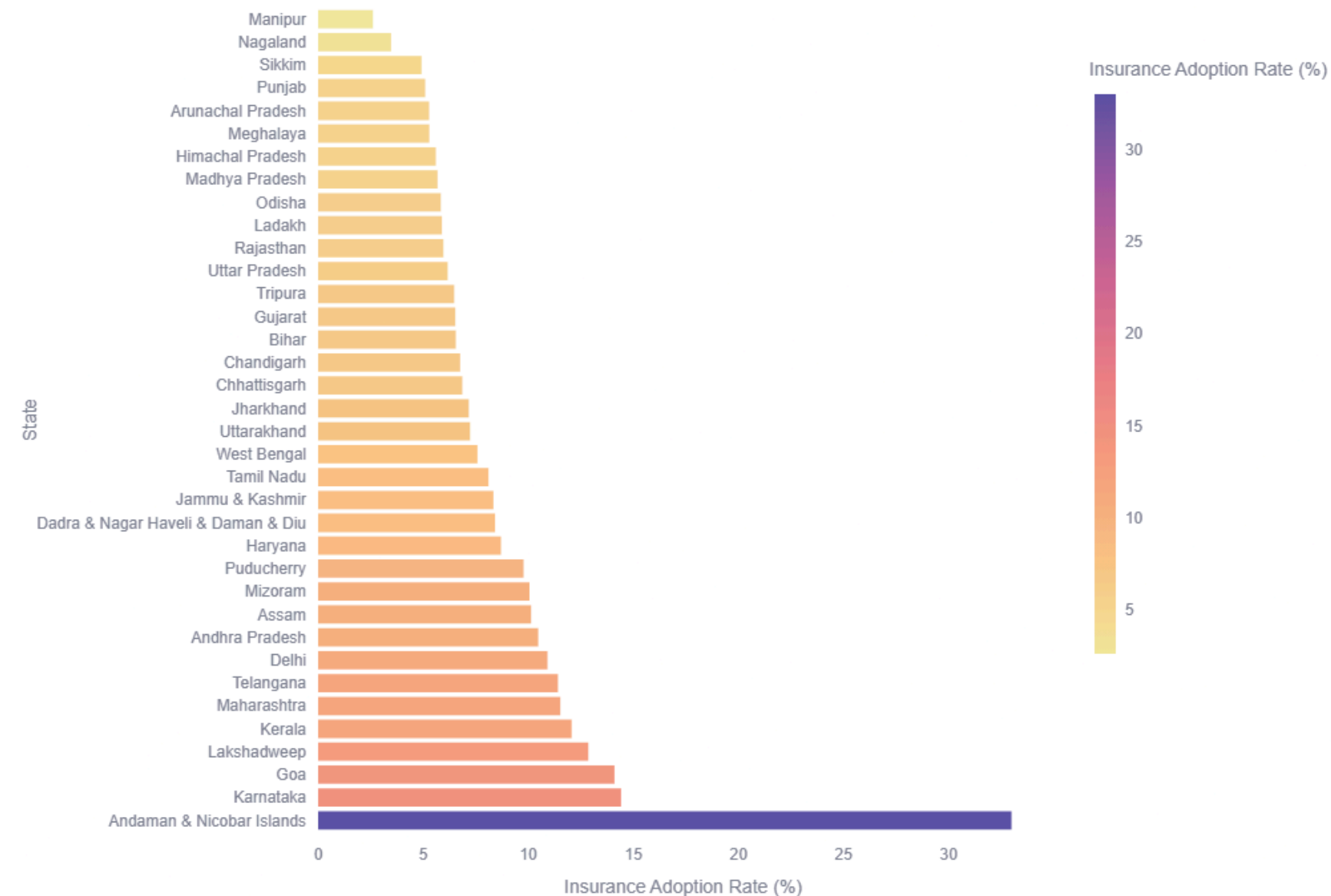


- Metro districts show a tightly clustered user engagement score with a median around 17 and few outliers, while non-metro districts have much greater variability and several extreme outliers, some exceeding scores of 6000. The majority of non-metro districts have lower engagement than metro districts, but a small subset exhibit exceptionally high user engagement.

3. INSURANCE PENETRATION AND GROWTH POTENTIAL

STATE-WISE INSURANCE ADOPTION RATE

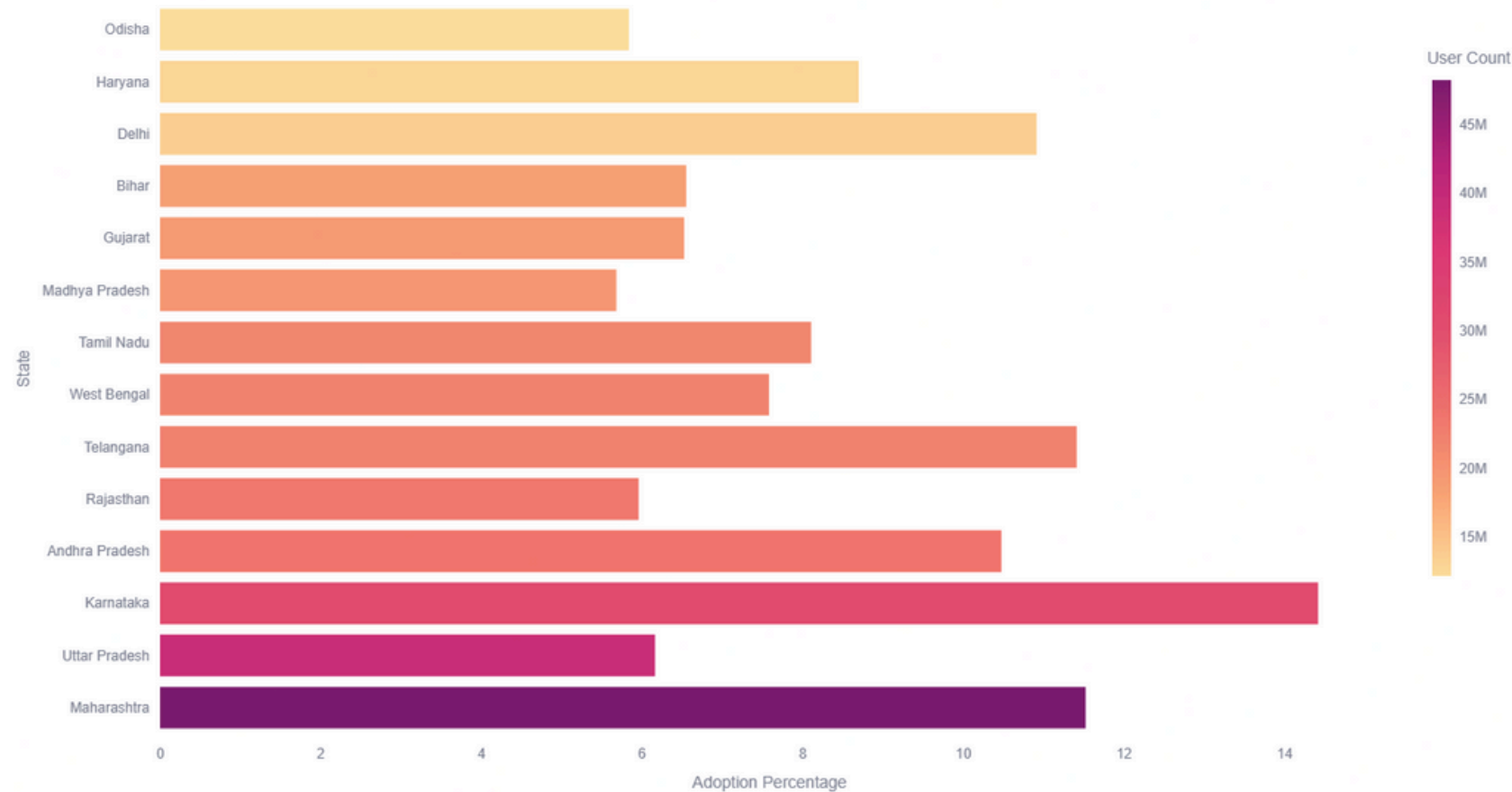
Insurance Adoption Rate by State



- Insurance adoption rates vary widely by state, with Andaman & Nicobar Islands highest (>30%), while most states have rates below 15% and several northeastern states show the lowest adoption.

3. INSURANCE PENETRATION AND GROWTH POTENTIAL

States Lagging in Insurance Penetration



**STATES LAGGING IN
INSURANCE
PENETRATION DESPITE
HIGH USERS**

- States with large user bases like Karnataka, Maharashtra, and Andhra Pradesh show relatively low insurance adoption rates, indicating a significant market potential for growth. Telangana, despite a moderate user count, has higher adoption compared to some populous states. Odisha and Rajasthan lag behind in both user count and adoption percentage, highlighting regions needing focused insurance outreach. The color gradient effectively shows adoption percentage relative to user count, emphasizing untapped opportunities across various states.

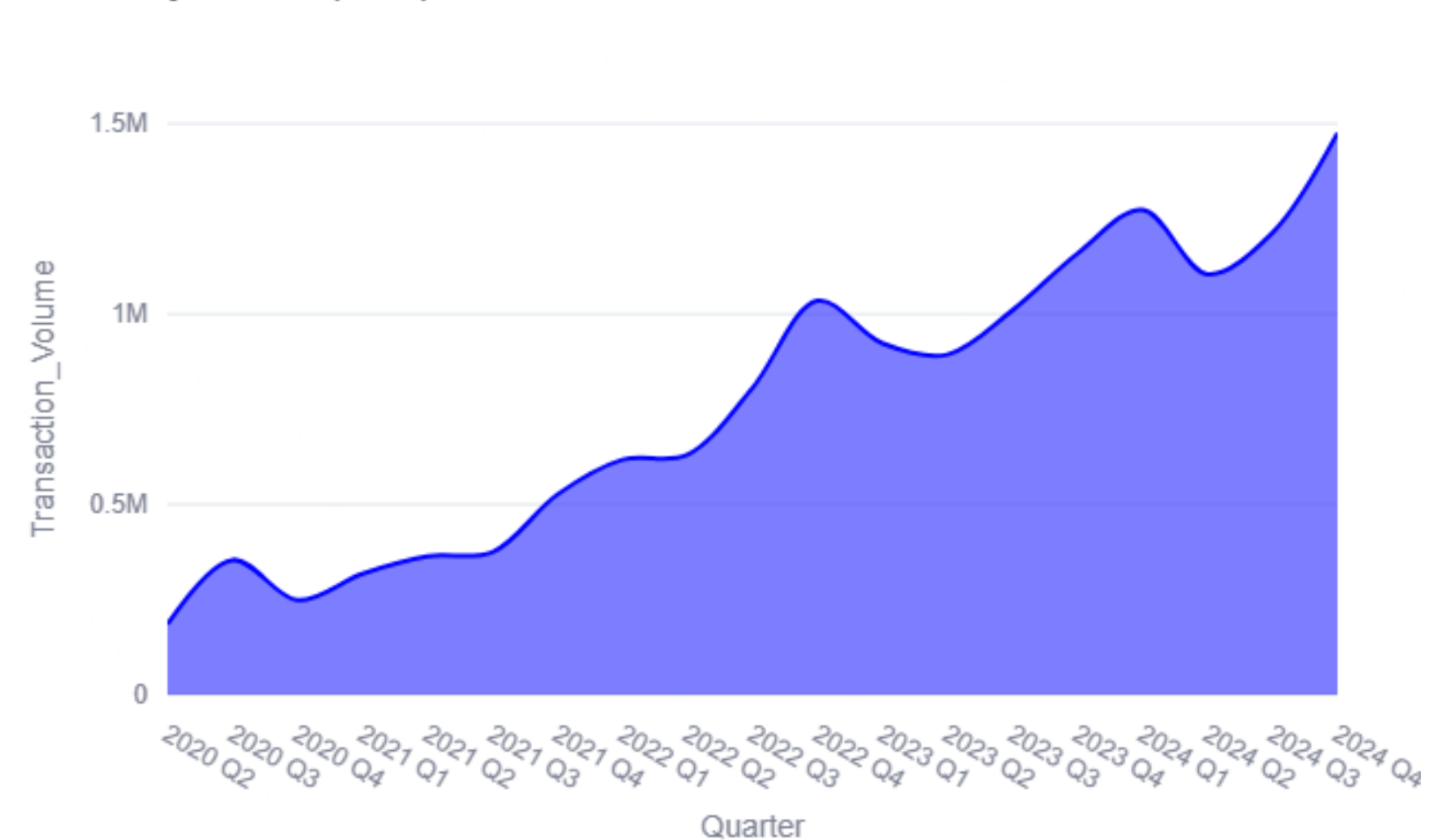
3. INSURANCE PENETRATION AND GROWTH POTENTIAL

QUARTERLY GROWTH OF INSURANCE TRANSACTIONS

Quarterly Growth (Area): Value (₹)



Quarterly Growth (Area): Volume

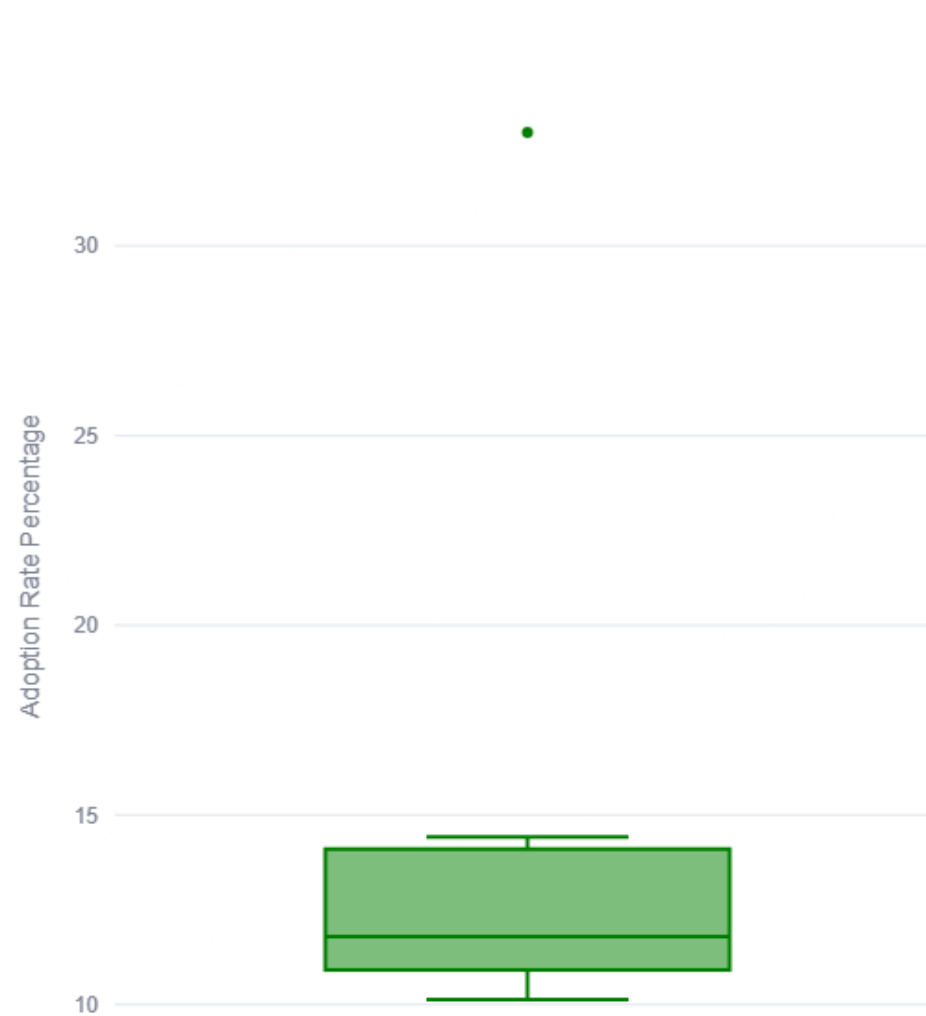


- Both insurance transaction value and volume show steady growth each quarter since 2020, peaking in late 2024 and indicating a strong upward trend in adoption and activity.

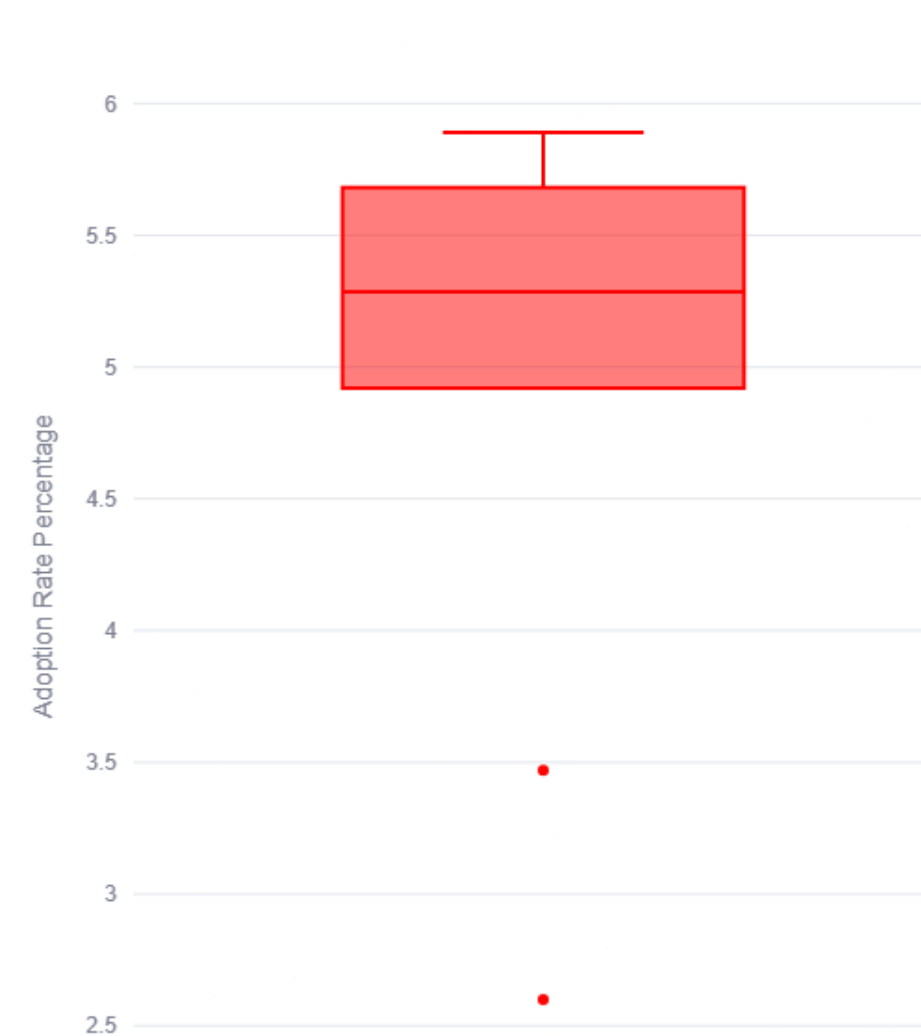
3. INSURANCE PENETRATION AND GROWTH POTENTIAL

INSURANCE ADOPTION: TOP VS BOTTOM 10 STATES

Top 10 States



Bottom 10 States

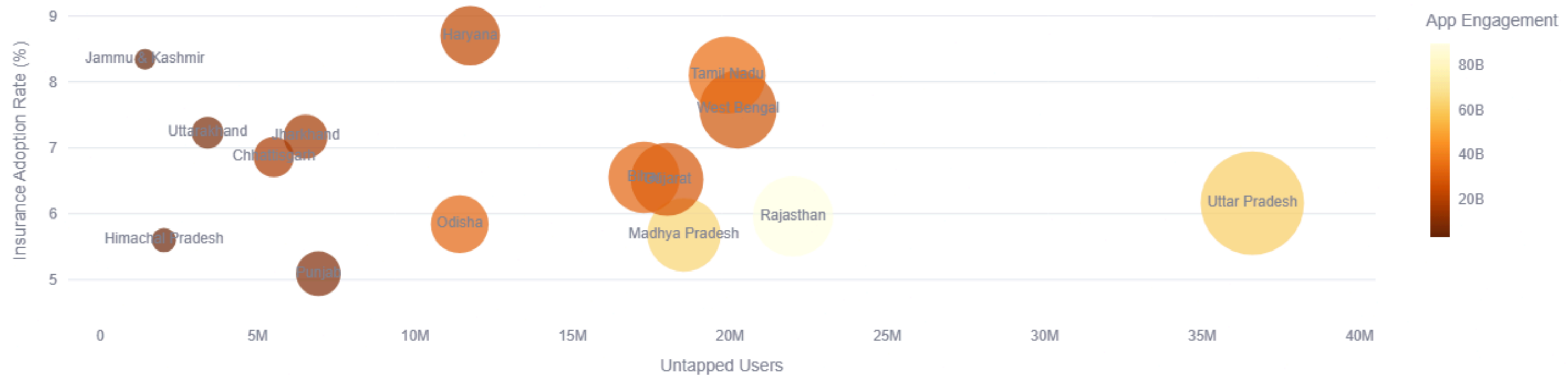


- Top 10 states show much higher and more varied insurance adoption rates, with one significant outlier, while the bottom 10 states cluster tightly at low percentages, indicating consistent underperformance

3. INSURANCE PENETRATION AND GROWTH POTENTIAL

UNTAPPED INSURANCE OPPORTUNITY BY STATE

Bubble Chart: Untapped Insurance Opportunity by State



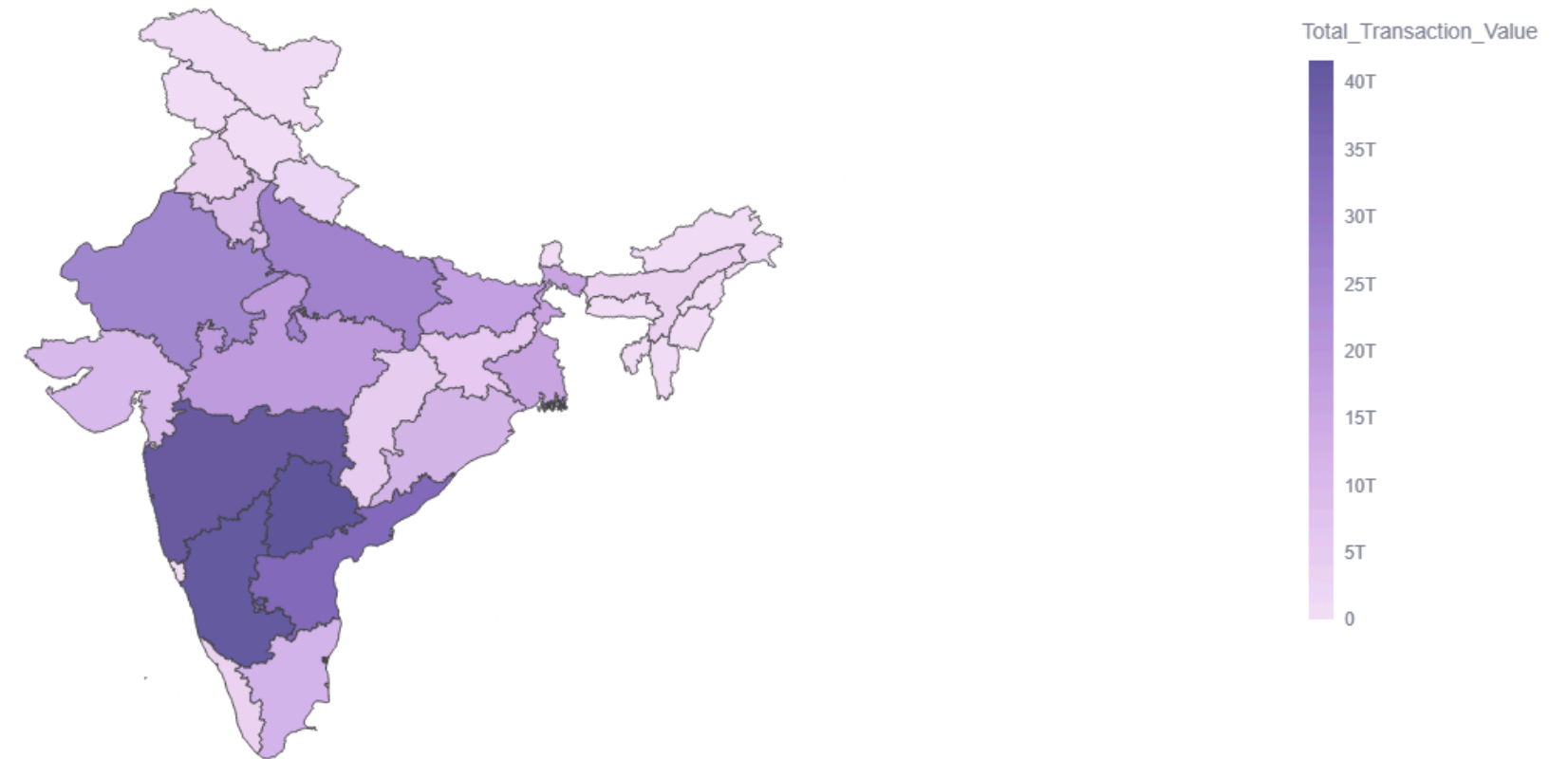
- Uttar Pradesh, Rajasthan, and West Bengal have huge untapped insurance user bases with high app engagement, suggesting strong potential for targeted insurance expansion. States with higher engagement but lower adoption rates present key growth opportunities. States like Uttar Pradesh, Rajasthan, and West Bengal have high untapped user bases and strong app engagement, presenting major opportunities for insurance growth.

4. TRANSACTION ANALYSIS FOR MARKET EXPANSION

STATE-WISE CONTRIBUTION TO PHONEPE TRANSACTION VOLUME AND VALUE

Choropleth Map: State-wise Transaction Value

- The map shows higher PhonePe transaction values concentrated in southern states like Telangana, Karnataka, Maharashtra, and Andhra Pradesh, indicating these are strong markets. Northern and northeastern states exhibit lower transaction volumes, highlighting areas for potential market expansion.

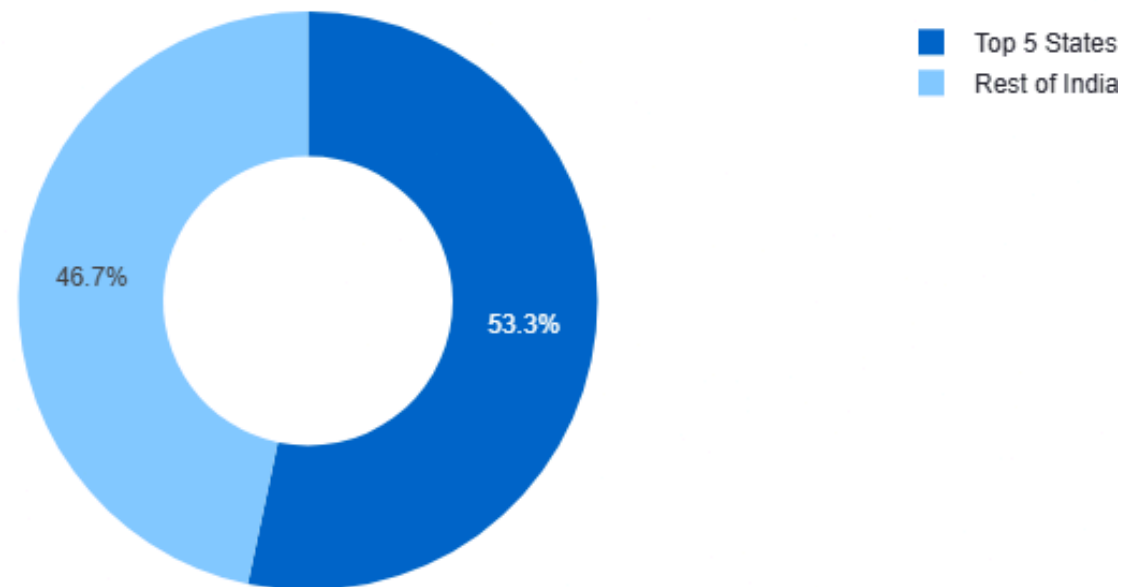


4. TRANSACTION ANALYSIS FOR MARKET EXPANSION

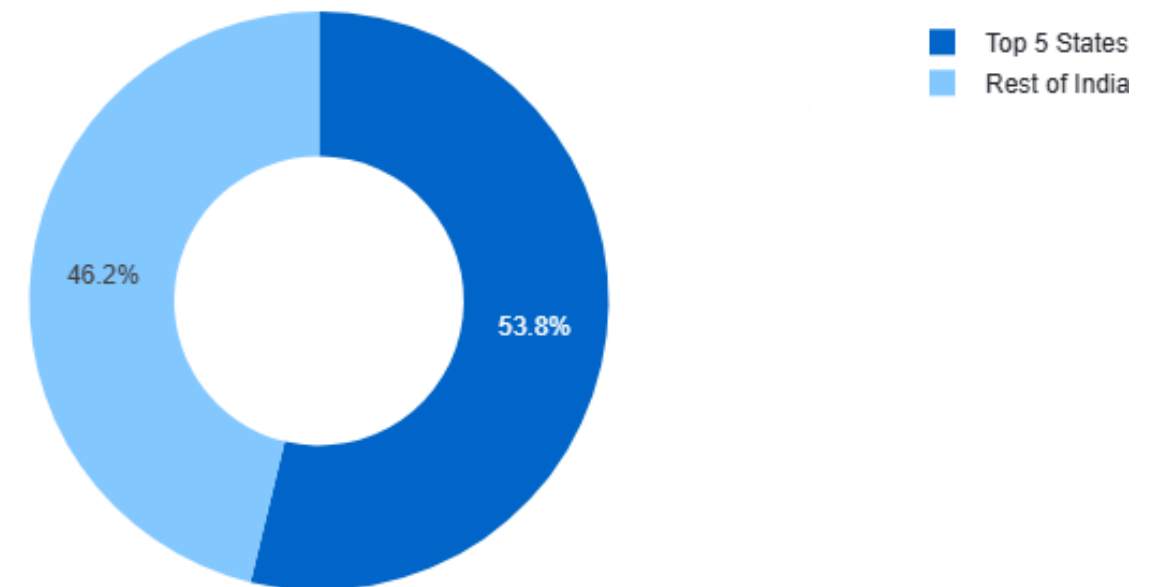
TOP 5 STATES DOMINANCE IN INDIA'S TRANSACTIONS

- The top 5 states contribute over half of India's transaction value (53.3%) and transaction volume (53.8%), highlighting their dominant role compared to the rest of the country.

Transaction Value Share

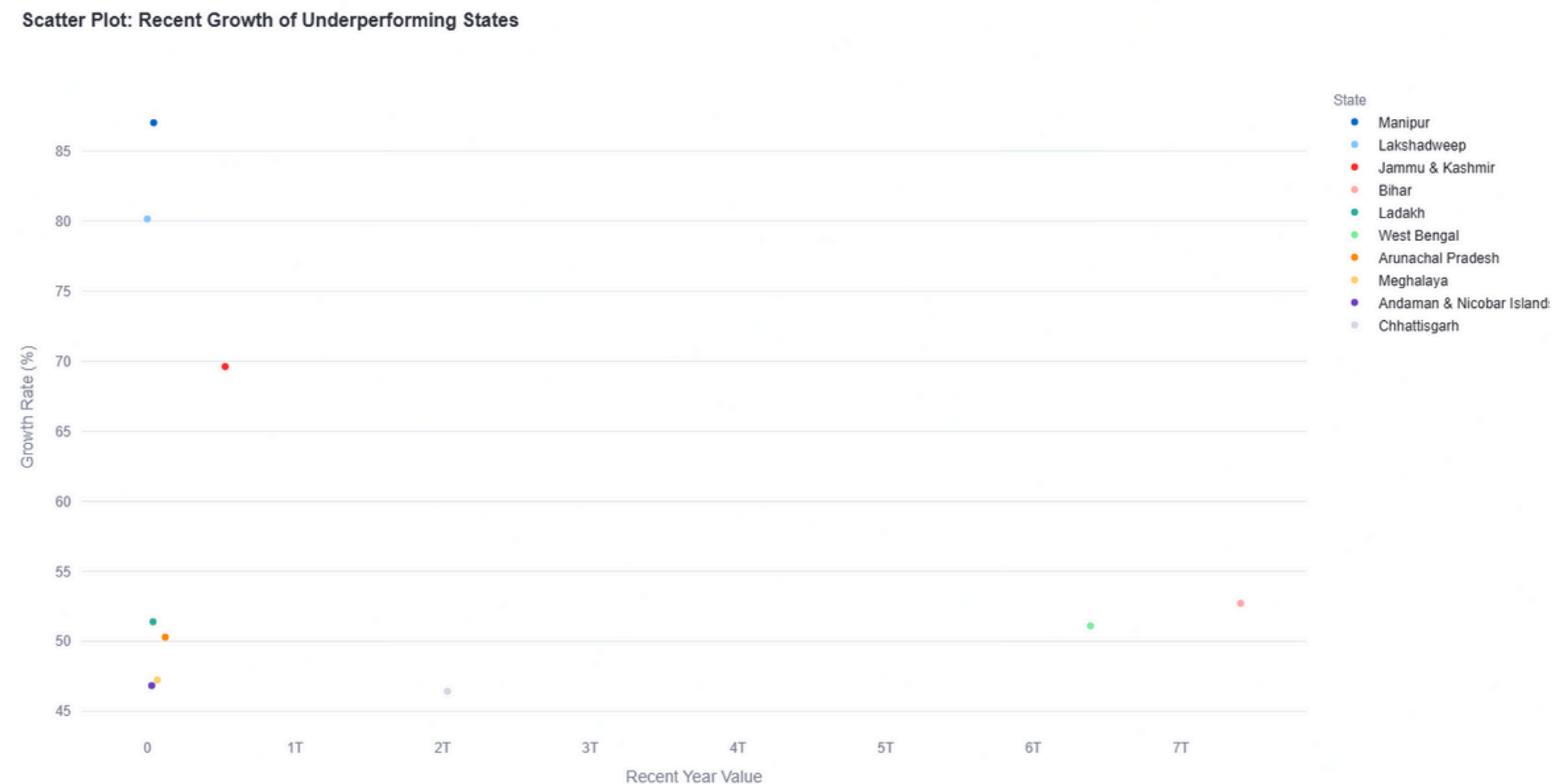


Transaction Volume Share



4. TRANSACTION ANALYSIS FOR MARKET EXPANSION

UNDERPERFORMING STATES SHOWING STRONG RECENT GROWTH: FUTURE OPPORTUNITIES

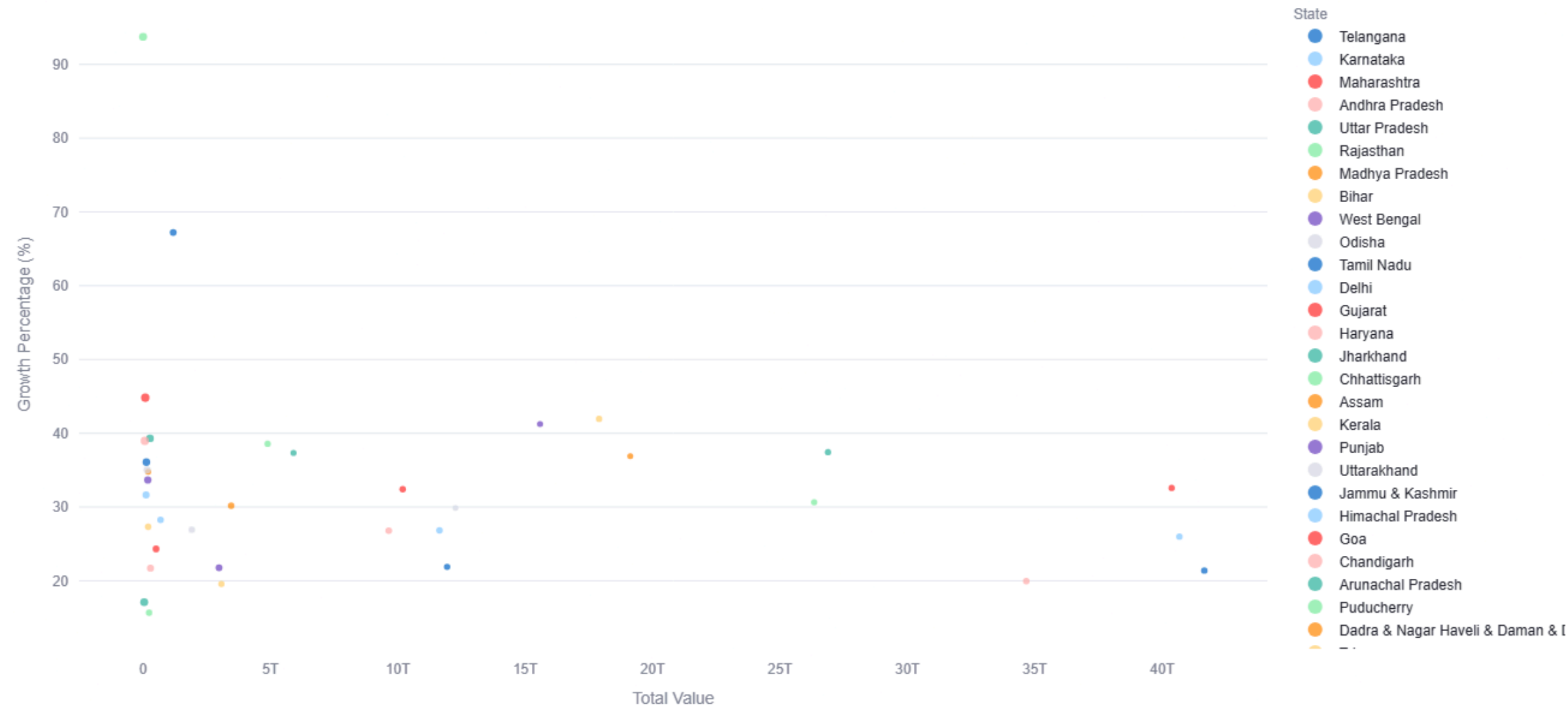


- Underperforming states like Manipur, Lakshadweep, and Jammu & Kashmir are experiencing high recent growth rates (up to 87%), signaling promising opportunities for further expansion.

4. TRANSACTION ANALYSIS FOR MARKET EXPANSION

SATURATED VS EMERGING STATE MARKETS

Scatter Chart: Growth Opportunity vs. Market Saturation



- States like Rajasthan and Madhya Pradesh combine high growth rates with substantial but unsaturated total value, while saturated states like Maharashtra show moderate growth, indicating where market expansion efforts could focus.

4. TRANSACTION ANALYSIS FOR MARKET EXPANSION

TOP 10 STATES: HIGH TRANSACTION VALUE VS. VOLUME

High Transaction Volume States

State	Total Transaction Volume
Maharashtra	3198.52 crores
Karnataka	3097.09 crores
Telangana	2617.47 crores
Andhra Pradesh	1891.87 crores
Uttar Pradesh	1852.36 crores
Rajasthan	1710.85 crores
Madhya Pradesh	1407.22 crores
Bihar	1094.10 crores
West Bengal	919.15 crores
Odisha	891.85 crores

High Transaction Value States

State	Total Transaction Value
Telangana	4165595.56 crores
Karnataka	4067872.18 crores
Maharashtra	4037419.57 crores
Andhra Pradesh	3466908.05 crores
Uttar Pradesh	2688521.22 crores
Rajasthan	2634323.56 crores
Madhya Pradesh	1912527.94 crores
Bihar	1790134.93 crores
West Bengal	1558416.43 crores
Odisha	1226398.21 crores

5. USER ENGAGEMENT AND GROWTH STRATEGY

TOP 10 STATES/DISTRICTS OF REGISTERED USERS

Top 10 States by Registered Users

State	Total Users
Maharashtra	53.05 crores
Uttar Pradesh	42.90 crores
Karnataka	34.32 crores
Andhra Pradesh	26.24 crores
Rajasthan	25.74 crores
Telangana	24.37 crores
West Bengal	24.11 crores
Tamil Nadu	23.83 crores
Madhya Pradesh	21.62 crores
Gujarat	21.19 crores

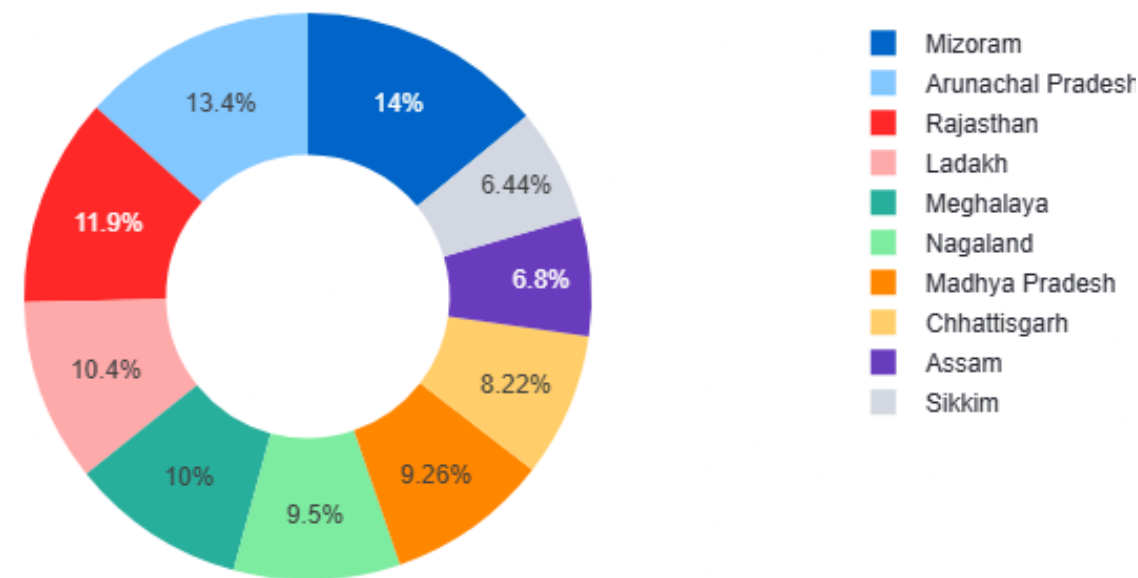
Top 10 Districts by Registered Users

State	District	Total Users
Karnataka	Bengaluru Urban District	7.13 crores
Maharashtra	Pune District	4.86 crores
Maharashtra	Thane District	2.93 crores
Maharashtra	Mumbai Suburban District	2.79 crores
Rajasthan	Jaipur District	2.54 crores
Telangana	Hyderabad District	2.37 crores
Telangana	Rangareddy District	2.22 crores
West Bengal	North Twenty Four Parganas District	1.93 crores
Gujarat	Surat District	1.93 crores
Telangana	Medchal Malkajgiri District	1.88 crores

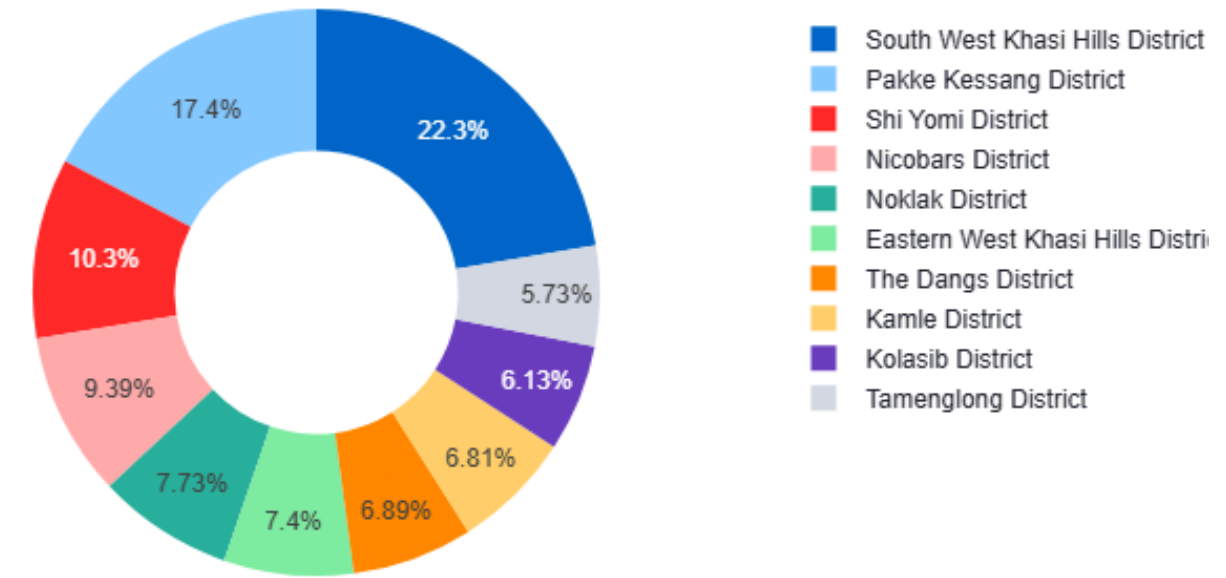
5. USER ENGAGEMENT AND GROWTH STRATEGY

USER ENGAGEMENT RATIO: TOP 10 STATES & DISTRICTS

User Engagement Ratio (Top 10 States)



User Engagement Ratio (Top 10 Districts)

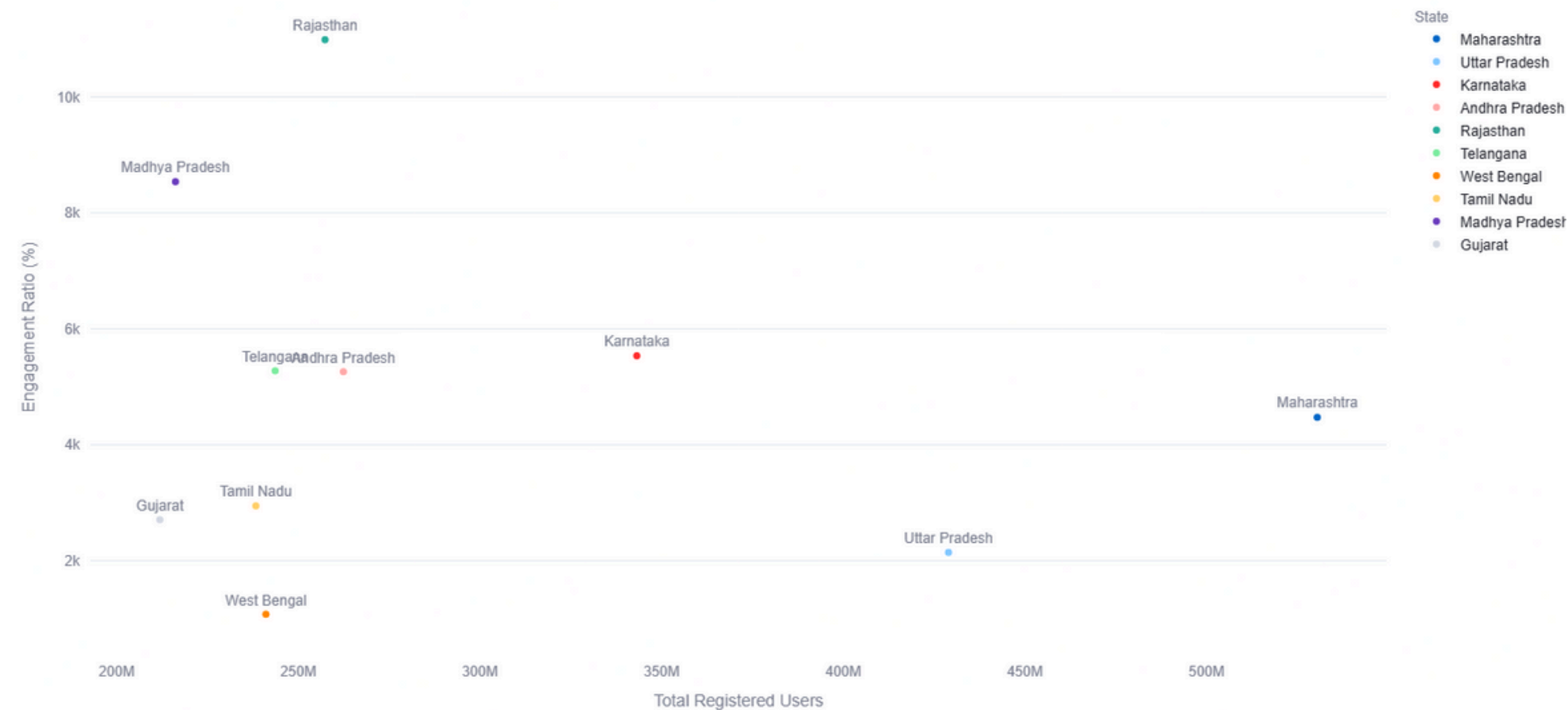


- Mizoram and Arunachal Pradesh lead in user engagement by state, while certain districts like South West Khasi Hills and Pakke Kessang dominate at the district level, showing deep local adoption. Growth strategy should focus on replicating these high-engagement models in neighboring states and targeting other top-performing districts with localized initiatives to boost engagement.

5. USER ENGAGEMENT AND GROWTH STRATEGY

TOP 10 DORMANT REGIONS

Scatter Plot: High Registration vs. Low Engagement

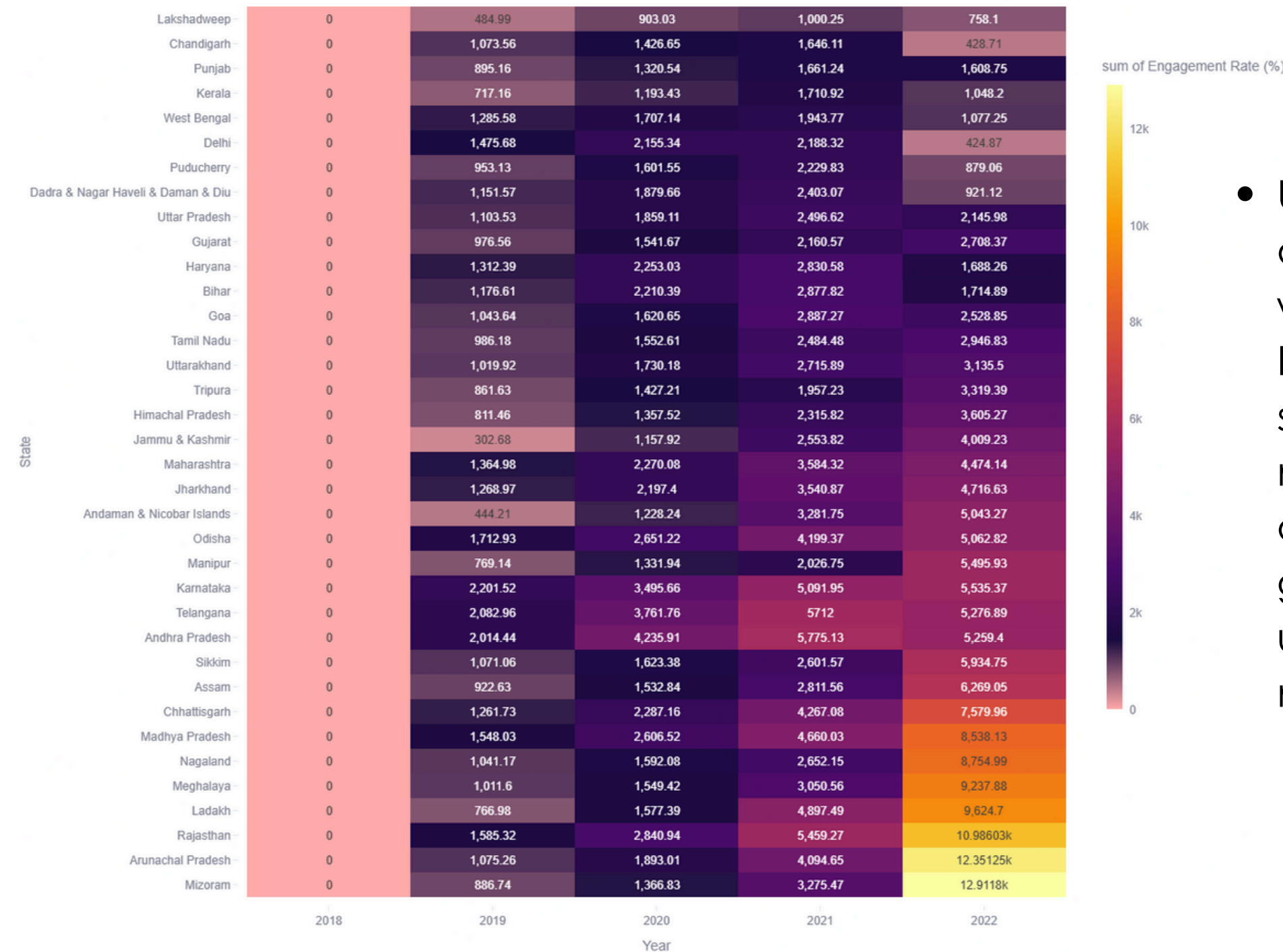


- Rajasthan and Madhya Pradesh stand out for high engagement ratios despite having moderate user bases, while populous states like Maharashtra and Uttar Pradesh have many users but relatively low engagement. This suggests focusing engagement strategies on large states with low ratios for greater impact.

5. USER ENGAGEMENT AND GROWTH STRATEGY

GROWTH OF USER ENGAGEMENT ACROSS STATES OVER TIME

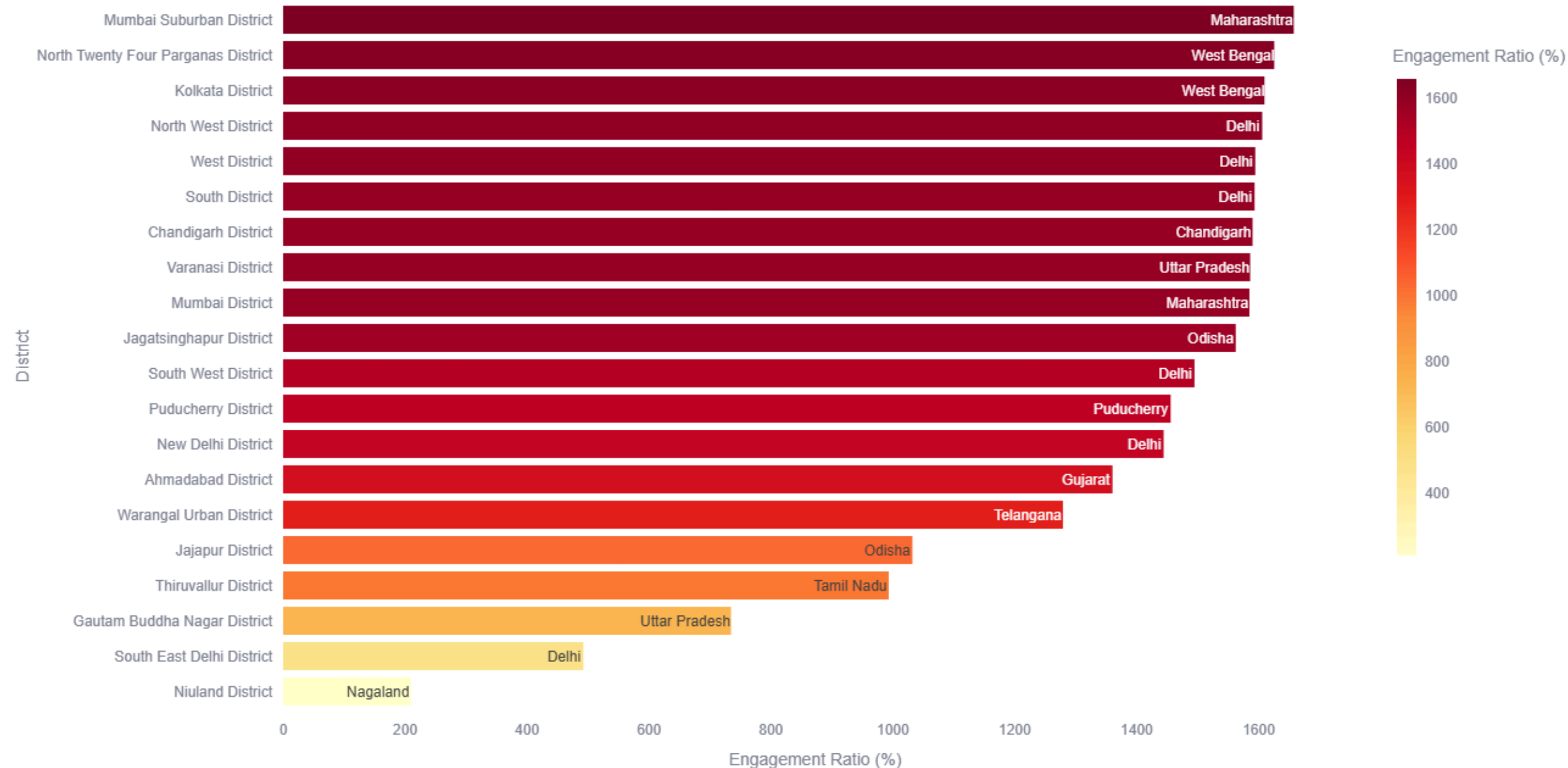
Heatmap: Yearly User Engagement Percentage by State



- User engagement has risen sharply across most states from 2019 to 2022, with Mizoram, Arunachal Pradesh, and Rajasthan showing the highest recent surges. This highlights strong momentum in several northeastern and emerging states, indicating growing digital adoption and untapped engagement potential moving forward.

5. USER ENGAGEMENT AND GROWTH STRATEGY

TARGET DISTRICTS TO BOOST USER STICKINESS



- Districts in Maharashtra, Delhi, and West Bengal such as Mumbai Suburban and North Twenty Four Parganas show the highest user engagement ratios, making them key hubs to target for improving user stickiness. Focus growth efforts on these districts and similar high-engagement urban centers to maximize traction and retention.



THANK YOU