### **BUSINESS CASE STUDY**

### 1.Decoding Transaction Dynamics on PhonePe

#### a. Total Transaction Amount & Count — State-wise

Among the listed states, Maharashtra recorded the highest number of digital transactions, with over 31.98 billion transactions, indicating a strong digital footprint and possibly a high volume of routine, lower-value transactions. In contrast, while Telangana had slightly fewer transactions (about 26.17 billion), it recorded the highest total transaction amount, exceeding ₹41.65 trillion. This suggests that although the number of transactions was lower than Maharashtra and Karnataka, the individual transaction values in Telangana were significantly higher.

Interestingly, Andhra Pradesh stood out in terms of average transaction value. Despite having a lower overall transaction count compared to the top states, it had the highest value per transaction, averaging around ₹1,832.52. This indicates that transactions in Andhra Pradesh were generally of higher value, possibly reflecting different spending behavior, fewer but more substantial digital payments, or specific high-value sectors driving digital activity.

Overall, while Maharashtra leads in volume, Telangana leads in total value, and Andhra Pradesh in transaction quality (value per transaction), each state shows a unique pattern of digital financial engagement.

### b. Category-wise Analysis (Transaction type)

Among the various transaction types, Merchant Payments had the highest number of transactions, totaling over 130.2 billion. Despite this massive volume, it had the lowest average transaction value at just around ₹501.69 per transaction, indicating frequent but low-value payments—common in everyday consumer purchases.

On the other hand, Peer-to-Peer (P2P) Payments recorded the highest total transaction amount, exceeding ₹266.5 trillion. This category also held the highest average transaction value, with each transaction averaging around ₹3,134.42. This suggests P2P payments typically involve larger monetary exchanges, such as personal transfers, rent, or bill splits.

**Financial Services** transactions were the least active in terms of volume and value. With around **154 million** transactions, this category had both the **lowest total amount** and was among the smallest in usage. However, its average transaction value stood moderately at ₹**920.95**, higher than merchant payments but significantly lower than P2P transactions.

### c. Compare growth between years

Among the Indian states, **Andhra Pradesh** has shown an exceptional increase in transaction amounts, reaching over ₹12.87 trillion in 2024. This indicates a strong upward trend in digital activity. However, the most remarkable **growth rate** was observed in **Arunachal Pradesh**, which saw a 128% increase, despite having a smaller transaction base — suggesting rapid digital adoption in emerging regions.

On the other hand, while states like **Bihar** and **Assam** also show steady progress, their overall growth rates are more modest in comparison (around **52–56%**), possibly indicating saturation or slower adoption.

**Andaman & Nicobar Islands** had the lowest absolute transaction values across all years, though its growth from ₹189 million in 2018 to over ₹30 billion in 2024 still reflects a significant digital push in even the smallest regions.

### 2.Device Dominance and User Engagement Analysis

#### a. Total Users by Brand

Among all user types, **Xiaomi** stands out with the **highest user count**, totaling over **869 million users**, indicating its strong market presence and popularity in digital transactions or app usage. On the opposite end of the spectrum, **COOLPAD** recorded the **lowest user count**, with just **10 users**, suggesting minimal adoption or limited activity.

This stark contrast highlights Xiaomi's widespread penetration, possibly due to its affordability and integration with digital platforms, while brands like COOLPAD remain largely inactive or niche in user engagement.

#### b. Users by Brand and State

Across Indian states, **Xiaomi** consistently leads in user count, particularly dominating in states like **Andhra Pradesh**, **Bihar**, and **Uttar Pradesh**, where its affordability and widespread availability have likely driven mass adoption. Similarly, **Samsung** and **Vivo** also show strong presence across nearly every state, maintaining a competitive edge through broad market segmentation.

In contrast, niche or legacy brands like **COOLPAD**, **Gionee**, and **HMD Global** show very low or zero presence in most states, indicating either withdrawal from the Indian market or negligible market influence.

Lesser-known or budget-focused brands such as **Tecno** and **Infinix** have noticeable but localized user bases, particularly in North-Eastern and Tier-2 regions, possibly appealing to first-time smartphone users.

This dataset highlights not only the dominant players in India's smartphone ecosystem but also how regional preferences and pricing strategy influence brand penetration.

### 3. Transaction Analysis for Market Expansion

#### a. State-wise Total Transactions

Among all Indian states listed, **Maharashtra** records the **highest number of digital transactions**, with over **31.98 billion** transactions. However, it is **Telangana** that leads in terms of **total transaction amount**, processing more than ₹**41.65 trillion**, indicating that its transactions may generally be of higher value.

When we look at average transaction value, Andhra Pradesh stands out. Despite having fewer transactions than top performers, it handles high-value payments on average, suggesting concentrated usage in sectors or users dealing in large sums.

Uttar Pradesh, while ranking among the top five in transaction volume, shows the **lowest** total amount, which implies a broader base of smaller-value transactions—likely reflecting widespread usage for low-ticket payments.

### b. From Map transaction

we observe a breakdown of transaction activity at the district level across various states. Among the listed districts, South Andaman stands out with the highest number of transactions (over 35.4 million) and a transaction amount exceeding ₹6,126 crore, making it the most digitally active district in the Andaman & Nicobar Islands region.

In Andhra Pradesh, Alluri Sitharama Raju district shows substantial digital engagement as well, with nearly 29.4 million transactions totaling about ₹3,976 crore, indicating both high volume and value of digital usage.

Smaller districts like **Nicobar** and **Nicobars** reflect significantly **lower digital activity**, both in terms of transaction count and amount, possibly due to smaller populations, limited access, or lower digital adoption rates.

This data showcases how digital financial behavior varies not just between states, but also across districts—driven by factors such as urbanization, population density, infrastructure, and regional development.

### 4. User Engagement and Growth Strategy

#### a. State level User Engagement

The dataset reflects how users across different Indian states are engaging with digital financial platforms. Andhra Pradesh leads in total user count with over 556 million users, indicating widespread digital penetration. However, it's Arunachal Pradesh that records the highest engagement rate at 138.85%, suggesting users are transacting at a rate that exceeds their registered count—likely due to highly active users or repeat transactions.

Bihar, despite having a large user base (over 446 million), shows a relatively low engagement rate of 30.5%, hinting that many users are either inactive or use digital

platforms less frequently. This contrast shows the difference between adoption and actual usage.

Andaman & Nicobar Islands, though smaller in population, displays an impressive engagement rate of over 92%, reflecting strong digital behavior relative to its user base.

### b. District level Engagement Hotspot

This dataset reveals extremely high user engagement rates in some of India's least populous and remote districts. For instance, South West Khasi Hills (Meghalaya) and Pakke Kessang (Arunachal Pradesh) exhibit extraordinary engagement rates exceeding 8,000% to over 18,000%, suggesting that although the number of registered users is small, each user is highly active—making frequent or high-value transactions.

Districts like **Dibang Valley (Arunachal Pradesh)** and **Senapati (Manipur)** also demonstrate strong digital activity relative to their user base, with engagement rates well over 3,000% and 4,000% respectively. This could indicate that digital platforms are becoming deeply integrated even in remote or less urbanized areas.

Such high ratios often reflect repeat usage by a small but highly active user group, and may also point to government incentives, local economic activity, or digital service hubs that drive strong adoption in specific regions.

# 5. Insurance Engagement Analysis

#### a. Groups by State Insurance

Over the span of five years from 2020 to 2024, the insurance sector has experienced significant growth in both the number of policies and the total insured amount.

In 2020, just over 788,000 insurance policies were recorded, amounting to ₹294 crore. By 2024, the number surged to 5.06 million policies, with a total insured amount nearing ₹7,926 crore. This reflects a sixfold increase in volume and more than a 25x increase in insured value over five years.

The consistent year-on-year growth signifies **rising awareness**, accessibility, and possibly digital adoption of insurance services across the country. Particularly notable is the jump between 2021 and 2022, which saw the insured amount nearly triple, suggesting a boost in policy value or uptake of higher-premium plans.

# 6. User Registration Analysis

### a.Top Districts/ Pincode by User Registrations

Among all districts in India, **Bengaluru Urban (Karnataka)** ranks first with over **303 million users**, making it the most digitally engaged district by user count. This reflects Bengaluru's status as India's tech capital and a major hub for digital services and financial activity.

Following closely are districts in **Maharashtra**, including **Pune**, **Thane**, and **Mumbai Suburban**, each registering between **119 to 199 million users**. These regions are known for their dense urban populations and tech-savvy demographics, contributing to their high user bases.

**Jaipur (Rajasthan)** also features prominently with nearly **120 million users**, showcasing the growing digital footprint even outside traditional metro areas.

This distribution clearly emphasizes the **dominance of metropolitan and tier-1 cities** in driving India's digital economy, while also pointing toward rapid expansion into state capitals and business hubs.