© Purchase Behavior

- 1. At which user levels do purchases most frequently occur?
- 2. What is the average time/session gap between install and first purchase?
- 3. What are the most purchased items (adj_product_id) and their revenue contribution?
- 4. How does the purchase rate vary by country?
- 5. How many users make just one purchase vs. repeat purchases?
- 6. How does the sequence of purchases evolve (e.g., low \rightarrow mid \rightarrow high value packs)?
- 7. What's the average purchase frequency per user type (e.g., casual vs. hardcore)?
- 8. Do high-value purchases happen at higher levels or earlier in the lifecycle?
- 9. What is the lifetime value (LTV) segmented by first purchase level or product?
- 10. How do session counts relate to total IAP spend?

User Segmentation & Personas

- 11. Can users be clustered based on spending patterns (e.g., whales, dolphins, minnows)?
- 12. Are certain player personas (e.g., booster-heavy users, revive-reliant users) more monetizable?
- 13. How do engagement profiles (time spent, level attempts) relate to spend behavior?
- 14. Which lifetime status metrics best differentiate payers from non-payers?
- 15. What are the distinct paths (play styles) that lead to high conversion?

Ad Monetization & Interaction

- 16. How does usage of RVs (rewarded videos) correlate with likelihood to purchase?
- 17. Do users who watch ads early churn more or less than those who don't?
- 18. Are some RV types (revive, booster refill) more predictive of future IAP behavior?
- 19. Does excessive RV usage delay or reduce IAP conversion?
- 20. What is the overlap between high RV users and high IAP spenders?

Purchase Intent & Funnel Conversion

- 21. How accurate is the purchase_intent flag in predicting future purchases?
- 22. What percentage of high purchase intent users actually buy something?
- 23. What in-game states (level, hard balance, lives) precede most purchases?

- 24. Do users with shop_intent but no purchase differ significantly from converters?
- 25. What's the abandonment rate in the shop funnel?

Timing & Session Dynamics

- 26. How long (in minutes/hours/days) does it typically take for a user to convert?
- 27. Are there "golden windows" certain sessions or days when users are most likely to purchase?
- 28. What's the session count distribution at first purchase for top spenders?
- 29. How do level streaks (win/loss) affect IAP behavior?

Retention, Churn & Lifecycle

- 30. Does making a purchase reduce churn risk significantly?
- 31. What's the average time between last purchase and last session (i.e., decay)?
- 32. Do early payers have longer lifetime engagement than late payers?
- 33. Are certain purchase products more "retention-boosting" than others?



Gameplay Mechanics & Economy

- 34. Do players tend to purchase after failing a level?
- 35. Are hard currency balances typically low at the point of purchase?
- 36. Does lack of boosters (inventory = 0) trigger purchases?
- 37. Do high blocked-cell or goal-difficulty levels lead to more purchases?
- 38. Are there economic bottlenecks (balance gaps) that lead to conversion?



Predictive Modeling Candidates

- 39. Can we predict likelihood of purchase based on 1st session behavior?
- 40. Which combination of features (level, time in app, boosters used) best predicts conversion?
- 41. Can we model expected LTV based on user's first 24-48 hours of behavior?
- 42. Which features are most predictive of whales vs. small spenders?

Cohort & Funnel Behavior

- 43. What % of users purchase within the first 1/3/7 days after install?
- 44. What's the funnel conversion at each stage: install \rightarrow level start \rightarrow ad view \rightarrow purchase?

- 45. Do players from certain cohorts (by date, country, A/B group) monetize better?
- 46. What is the conversion rate by placement of IAP offers (if placement = UI location)?
- 47. How many purchases happen during or after session spikes?