Mobile User Behavior Analysis Report

Pivot Table & KPI Summary (Excel)

1. Objective

Use a cleaned mobile user behavior dataset to understand engagement patterns, and assess how engagement relates to app usage time, screen time, data consumption, and battery drain. Build KPI-ready pivot tables and charts that a non-technical stakeholder can interpret.

2. Dataset & Method

We used an Excel Table as the source, created KPI helper columns, and built pivot tables + charts to summarize the data by user groups (Low / Medium / High engagement). To make 'Active' meaningful, we defined an Active User as someone with at least 60 minutes of app usage per day (Active_User_60min).

3. KPI Results (From Pivot Tables)

KPI	Result
Total users	700
Active users (≥60 min/day)	91.29% (639 users)
Low activity users (<60 min/day)	8.71% (61 users)
Engagement distribution	High: 418 | Medium: 221 | Low: 61
Avg App Usage Time (min/day)	High: 388 | Medium: 112 | Low: 44 | Overall: 271
Avg Screen On Time (hours/day)	High: 7 | Medium: 3 | Low: 2 | Overall: 5
Avg Data Usage (MB/day)	High: 1333 | Medium: 369 | Low: 196 | Overall: 930
Avg Battery Drain (mAh/day)	High: 2097 | Medium: 741 | Low: 444 | Overall: 1525
High Data Users (Top 25%)	Yes: 25% | No: 75%
High Battery Users (Top 25%)	Yes: 25% | No: 75

4. Key Insights (What the Data Is Telling Us)

- Most users are highly engaged: 418 out of 700 users (about 60%) fall into the High engagement group.
- Active User Rate (≥60 min/day) is high: 91.29% of users meet this threshold.
- Engagement strongly links to usage intensity: High engagement users average 388 min/day app usage vs 112 (Medium) vs 44 (Low).
- High engagement users spend far more time on their screens (7 hours/day) than Medium (3) and Low (2).
- Data usage scales with engagement: High engagement users average ~1333 MB/day versus 369 (Medium) and 196 (Low).
- Battery drain also scales with engagement: High engagement users average ~2097 mAh/day versus 741 (Medium) and 444 (Low).
- Top 25% flags behave as expected: ~25% of users are classified as High Data Users and High Battery Users, confirming the percentile method is working.

5. Recommendations (What to do With This Insight)

- Build two strategies: (1) retain High users (they drive usage), and (2) upgrade Medium users into High users with targeted features and nudges.
- Protect performance for High users: optimize heavy screens, reduce background activity, and improve caching to lower battery/data drain without harming engagement.
- Improve onboarding for Low users: reduce friction in the first session and guide them to reach the 60+ min/day threshold.
- Track a small KPI set on dashboard: Active_User_60min rate, Avg Data Usage, Avg Battery Drain, and High_Data_User share.
- Run A/B tests by segment (Low/Medium/High) because these groups behave very differently.

6. Did We Achieve the Objectives?

Yes — for the parts supported by the dataset. We identified highly active vs low activity users, linked behaviors to engagement, and quantified how engagement relates to battery and data consumption.

Two areas are not fully answerable with this dataset alone: (1) true drop-off/retention over time and (2) forecasting future usage, because there is no time/date history per user. Adding time-stamped usage data would enable those analyses.