

## Executive Summary

### Key Findings

- Revenue is driven primarily by premium mattresses (Lux, Royal, Cloud), accounting for ~78% of total revenue.
- Google Ads and Microsoft Ads deliver the highest-value customers, while Facebook Ads contribute negligible revenue.
- Conversion funnel analysis shows strong checkout performance (0% abandonment) but weak session-to-order conversion (~0.7%).
- Organic traffic performs well but is partially inflated by missing attribution identifiers.
- Returning users are few but produce high repeat revenue (> \$1k per returning customer).

### Metrics Used

- Channel Metrics: Orders, revenue, ROAS proxy, LTV by channel, first-touch vs. last-touch attribution.
- Conversion Metrics: Sessions, product views, checkout starts, completed orders, session-to-order rate.
- Product Metrics: Revenue per SKU, percentage contribution, Pareto concentration.
- Behavioral Metrics: Pageviews, session duration, event depth, weekday/hour patterns.
- Retention Metrics: Cohort-month activity and repeat revenue.

### Areas for Improvement

- Product pages need optimization to reduce mid-funnel drop-off.
- Attribution gaps must be fixed to accurately measure paid performance.
- Marketing spend should shift away from Facebook toward high-intent channels.
- Long-tail product inventory and marketing should be deprioritized.
- Strong post-purchase and retention flows should be implemented.

### Machine Learning Insights

- Key predictors of conversion: `pageview_count`, `session_duration_seconds`, and `event_count`.
- Model confirms that deeper engagement drives conversion.

- Channel and device categories hold lower predictive power.
- ML serves as a diagnostic tool due to class imbalance.

#### Communication & Prioritization

- Findings are communicated in clear business terms for executive decision-making.
- Focus is placed on high-impact metrics: revenue drivers, channel efficiency, conversion friction.
- Low-signal variables (browser, weekday drift) were deprioritized.