Business Data Management

Refining Revenue and Engagement Growth Strategies through Service Usage Analysis in Online Astrology Service Company

Kavisha Tankle | 23f1000041@ds.study.iitm.ac.in

Overview

Company: Hindu Panchang - An online astrology service app, over 5 Million downloads with 4.5+ rating on Google Play

Established: 2016 by Rajesh and Aryan Jain, based in Ujjain, India

Mission: To make astrology accessible and impactful for every user, aligning services with cultural insights.

Current Challenges: Increasing acquisition costs, improving retention, and expanding revenue streams in a competitive market.

Understanding the problem

Challenges Identified

Low Revenue Generation: Existing monetization strategies underperforming.

High Cost per Acquisition (CPA): Increasing costs due to reliance on Google Ads & its uptight policies and peer competition.

Low User Retention: Users frequently leave after their first interaction due to frustration with in-app ads.

Project Objectives

Increase Revenue: Identify top revenue drivers and high-value customer demographics.

Optimize CPA: Identify cost-effective channels and high-quality acquisition sources.

Enhance User Retention: Find when and why users drop off; discover strategies to boost engagement.

Home page of the app as seen on a mobile phone

Methodology

Data Collection Sources: Google Analytics reports, in-app transaction records from the app's private Dashboard.

Data Range: 3.5 months (1 June - 16 September 2024)

Key Data:

Retention: Tracked weekly to identify drop-off points. [Retention Rates data]

Revenue: Broken down by service type, demographics, and region. [Transaction data]

Acquisition: Analyzed by channel to assess effectiveness and cost. [CPA by Ad Groups and Channel Performance data]

Analysis Tools: Pivot tables, Excel/Google Sheets charts, Pareto analysis, and Geo-Charts for geographic insights.

Data Cleaning: Removed irrelevant data like emails and phone numbers, grouped users by demographics, and created service and age-group categories for accurate revenue insights

Methods Used:
Revenue Analysis: Service-wise, region-wise, and demographic and temporal trends.
Example: Pareto Chart for revenue distribution by service subcategory helped focus on high-performing services for revenue growth.
Retention Analysis: Weekly user retention and return rates compared to industry benchmarks.
Cohort analysis tracked user return rates over time, with industry benchmark comparisons to identify gaps in retention strategies.
Marketing Efficiency: Cost-per-acquisition and channel performance
Cost per conversion by ad group highlighted areas for budget reallocation to lower acquisition costs and improve channel efficiency.

Challenges:
Incomplete user data with missing demographic information
Limitations:
Limited timeframe, external competition affecting user metrics

Key trends

Revenue Distribution: Spiritual products contribute 30% of total revenue. Online birth charts have high engagement but low per-transaction revenue. Top services: Stones & Beads Mala and Marriage Counseling are major revenue drivers.

Demographic Breakdown:

- **Gender:** Males generate higher total revenue, but females spend more per transaction, indicating a targetable opportunity.
- **Age:** Users aged 15-24 prefer milestone services (marriage, career chances), while those aged 45-60 favor stability-related services (home-ownership, financial stability).
- **Region:** Rajasthan and Uttar Pradesh lead in total revenue, while Odisha shows potential for growth with high revenue per user.
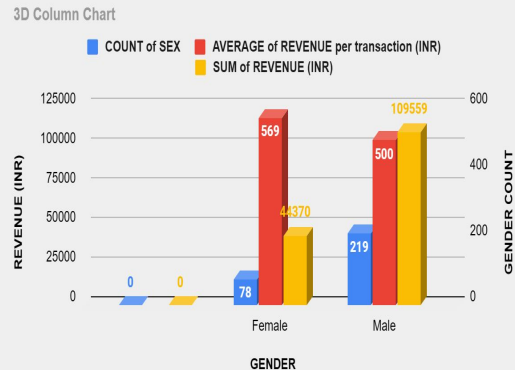
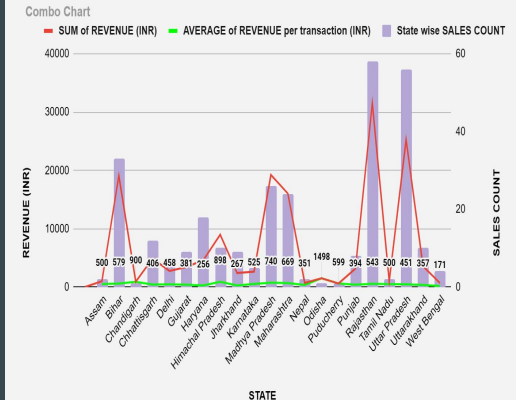Total Sales vs Avg. Revenue per Sale by Service (INR)
Combo Column Chart
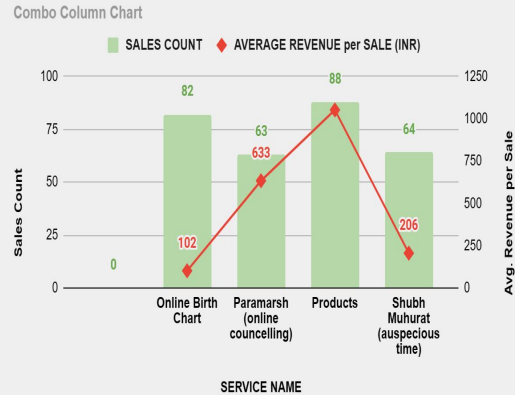
Pareto Analysis for Service Subcatergories vs Revenue Generation
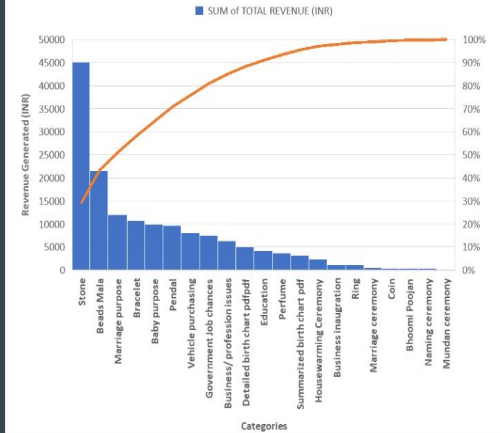
Genderwise Distribution of Transactions vs Total Revenue vs Avg. Revenue per Transaction (INR)
3D Column Chart

Statewise Sales Count vs Total Revenue vs Revenue per Transaction
Combo Chart

Key trends

Retention and Acquisition Patterns:

User Retention and Marketing Insights

- Retention Issues: Retention drops by 80% after the first week—suggests a need for better onboarding engagement and follow up rewards.

Marketing Channel Performance:

- Direct Traffic: High engagement—shows brand recognition.
- Low-Performing Channels: Organic search and social media have low engagement; suggest potential for improvement.
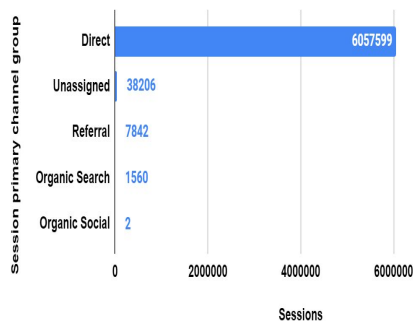

User Retention Rate [July 28, 2024 - Sept 7, 2024]
Smooth Line Chart
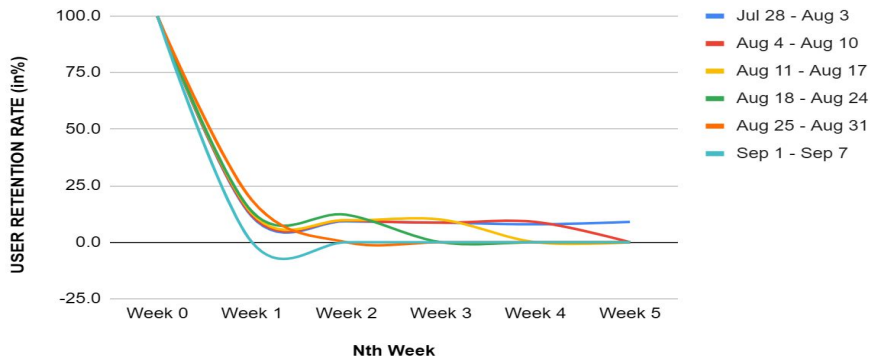
Sessions count vs Session primary channel group (Default Channel Group)
Bar Chart

First user primary channel group (Default Channel Group)	New users
Direct	608624
Organic Search	1424
Referral	317
Organic Social	2

Proposed Recommendations

Increase Revenue

- Expand spiritual products like Stones and Beads Mala; cross-sell with counselling services. Upsell premium services like detailed birth charts.
- Increase engagement with female users and target time, location and age-specific services (for 15-24 and 45-60-year-olds).

Improve Retention

- Improve onboarding with tutorials and offers; introduce loyalty programs to reward repeat users right from the initial weeks.

Optimize Marketing Costs

- Focus marketing budget on direct traffic and cost-effective channels, optimizing underperforming ones like Kundli Milan and organic social.
- Target High-Engagement Regions like India & Europe, expand to high-growth markets.

Main Takeaways:

Sustained growth depends on optimizing revenue channels, improving user engagement in the early stages, and fine-tuning marketing strategies for cost efficiency.

- Revenue opportunities lie in spiritual products, upselling, cross selling and dynamic pricing among high value services products, and targeted age-location-time-gender-specific campaigns.
- Retention challenges, especially after Week 1, indicate the need for enhanced onboarding and loyalty efforts.
- CPA can be reduced by reallocating ad spend to more effective channels and ad groups, and geo-targeted advertising.

Regular data reviews and customer feedback surveys will keep these strategies aligned with user needs for long-term success. Beyond these current goals, Hindu Panchang can also redefine astrology as a wellness and self-discovery tool by clarifying what it is and isn't. Through educational content like articles, webinars, and success stories, the app can demystify astrology, flourishing trust, transparency, and a deeper connection with users in an ethical way.

Thankyou!

Link of Hindu Panchang app – Hindu Panchang

Proposal Report – Proposal Statement

Mid Term Report – Mid Term Report

Final Term Report – Final Term Report

Original Data and Analysis Sheet – [Data Collected] [Analysis Sheet]