

Paper Boat Performance Analytics — Project Summary

Project Objective

Analyze Paper Boat's 10-year performance (2015–2025) across revenue, customer behaviour, product demand, distribution channels, inventory, and regional markets to identify growth opportunities and optimize operational decisions.

Business Objectives

- Identify key revenue drivers and growth opportunities across channels
- Analyze customer segmentation and retention patterns
- Evaluate marketing ROI and campaign effectiveness
- Optimize inventory management and distribution strategy
- Uncover regional and seasonal demand patterns

Dataset

- Sales transactions (2015–2025)
- Customer demographics and behaviour
- Marketing spend & channel-wise performance
- Distributor & partner revenue
- Inventory & stock turnover
- Regional, seasonal & festive sales patterns

Tech Stack

Data Cleaning: Excel / Python

Data Processing: SQL

BI & Visuals: Power BI

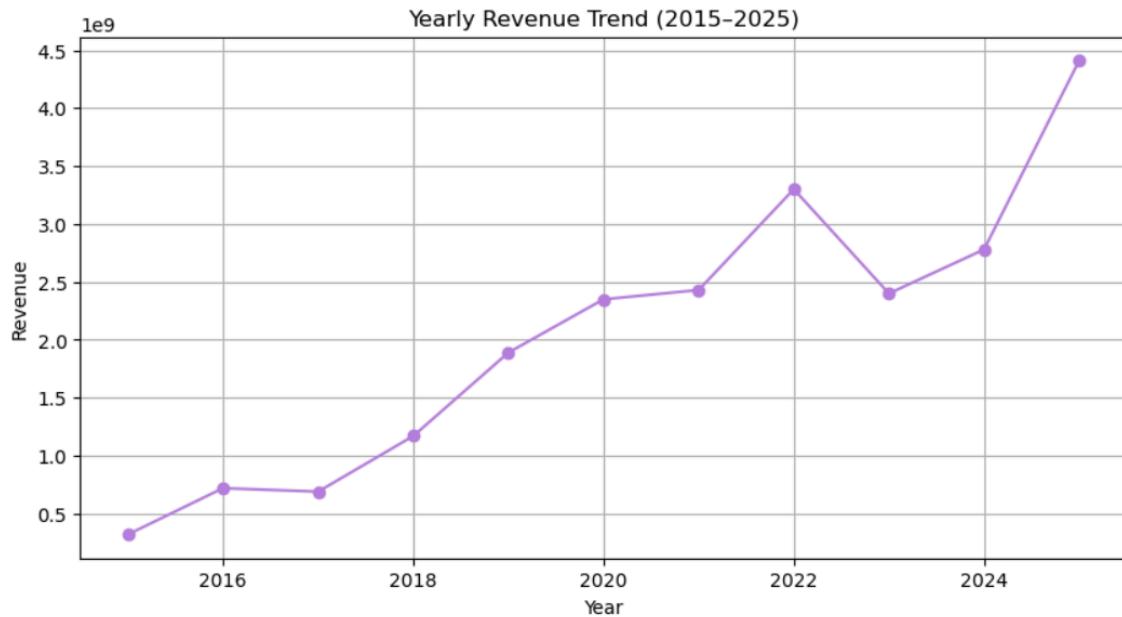
Analysis: Exploratory

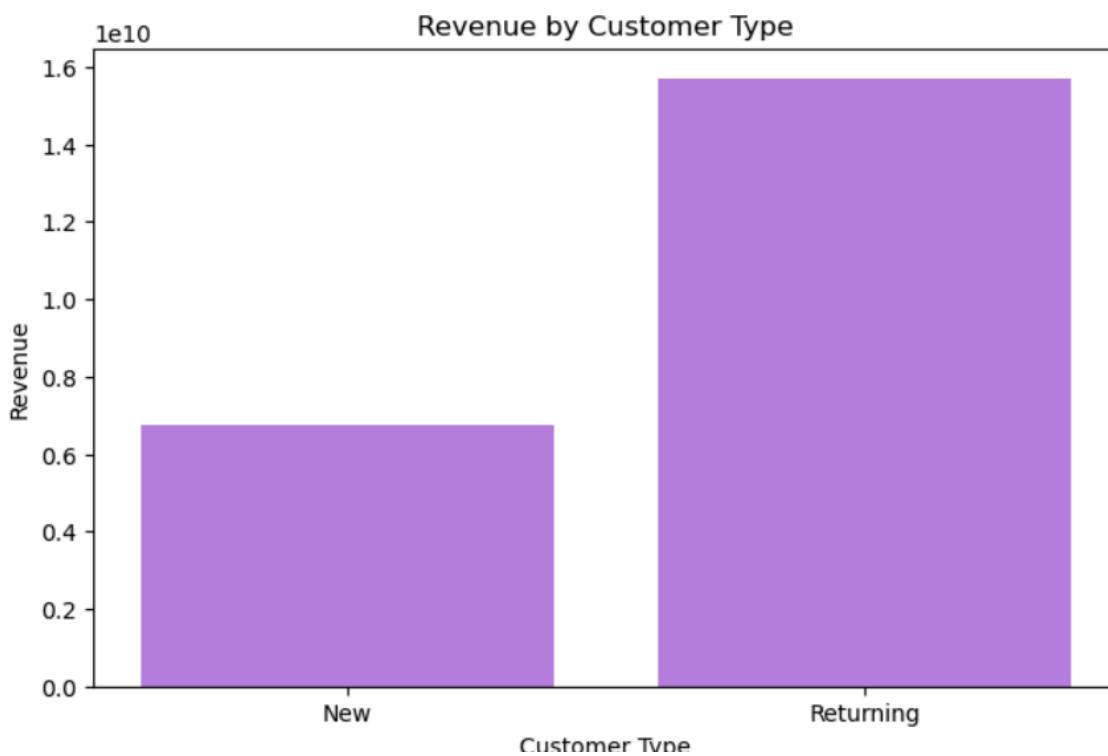
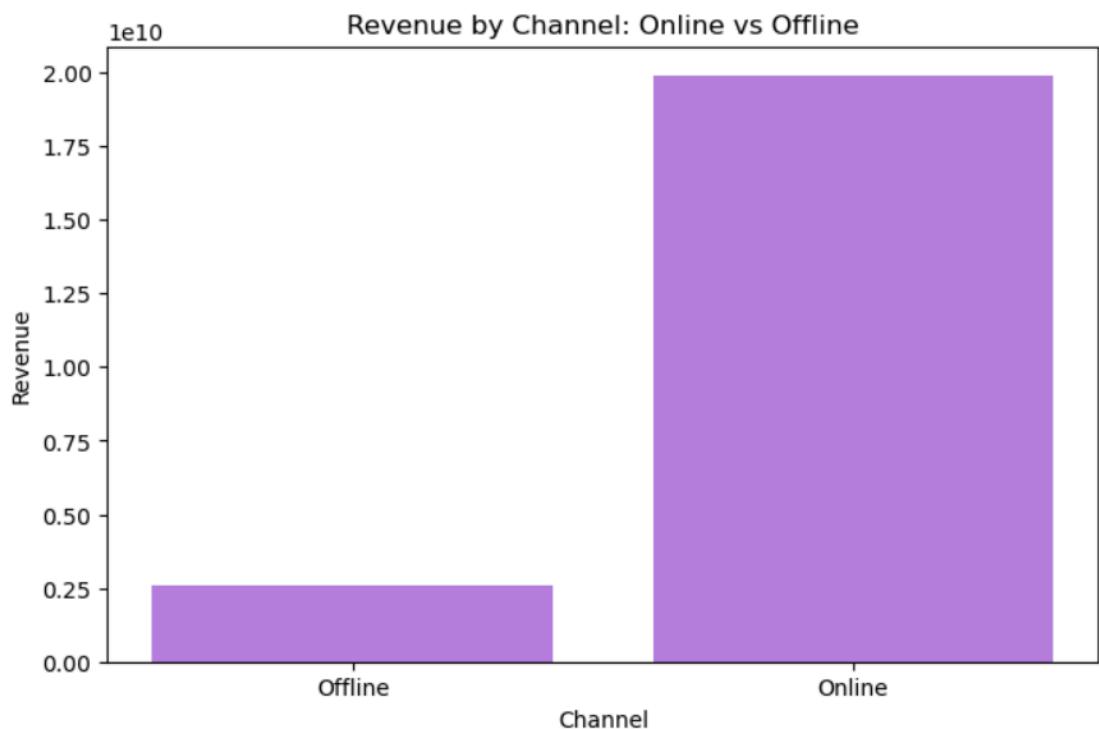
Key Business Metrics

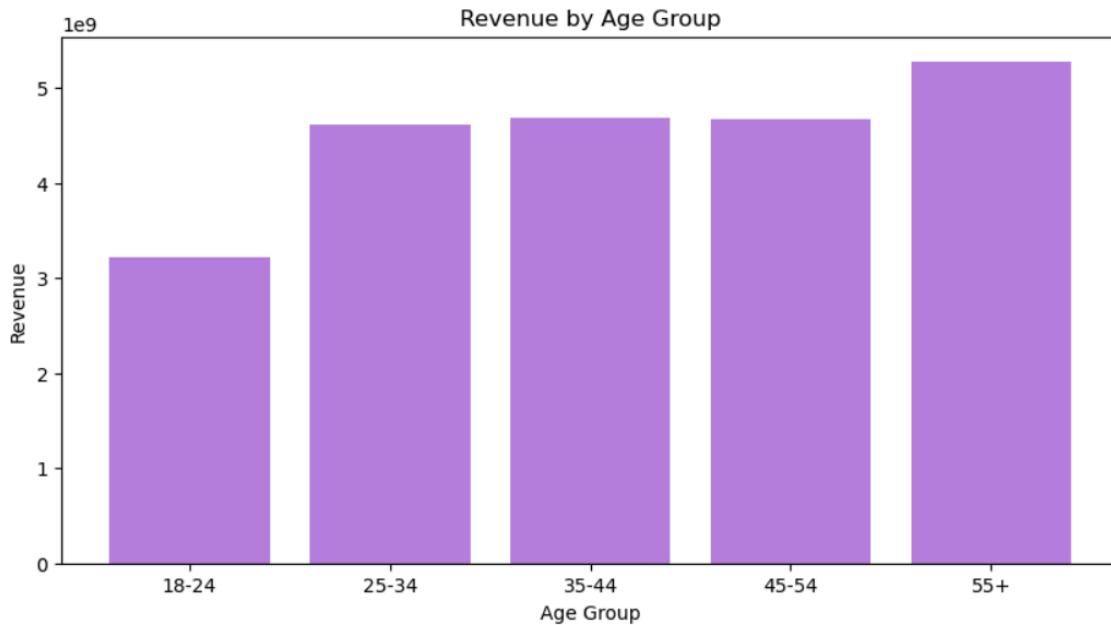
- Revenue: ₹2,246 Cr (707.9% growth) - 707.9% growth over 10 years
- Profit Margin: 58.98% - Consistently stable
- Online Contribution: 88.5% - Digital dominance

- Returning Customers: 69.88% - Strong loyalty base
- Churn Rate: 14.9% - Opportunity for improvement
- Stock Turnover: 2.59 - Moderate inventory velocity
- Ad ROI: 4.97 - ₹4.97 return per ₹1 spent

EDA Visuals:







Key Insights & Findings

1. Revenue Growth & Profitability

- Consistent YoY growth from 2015 to 2025, reaching ₹2,246 Cr
- Business doubled every 3-4 years and Profit stays steady at 59% every year

2. Channel Performance

- Online channels dominate with 88.5% revenue contribution, only 11.5% in stores
- Traditional marketing delivers highest ROI (~₹567 Cr revenue impact)
- Post-campaign revenue consistently outperforms pre-campaign baseline by 35-40%
- Stores still matter in rural areas

3. Customer Behavior Analysis

- 70% of revenue comes from repeat customers
- Age group 35-54 years represents highest lifetime value segment
- Average customer shops 3-4 times per year and 15% customers stop buying each year (churn problem)

4. Product Performance

- Traditional Drinks category leads with 45% of total sales
- Jaljeera alone is 14% of total sales and Aam Panna spikes 200% in summer

- Seasonal flavors show 60% sales spike during summer months

5. Distribution & Partnership

- Retail & Wholesale channels generate largest revenue streams
- Top 20% distributors generate 65% of revenue
- Traditional ads (TV, print) bring ₹567 Cr - highest return
- Every marketing campaign increases sales by 30-40%

6. Geographic & Seasonal Trends

- East India emerges as top-performing region (32% of sales)
- Urban markets generate 4x revenue compared to rural areas
- Winter season and festive periods (Diwali, Holi) drive 25% sales spikes

Strategic Recommendations

- Reducing churn from 14.9% to 10% could retain an estimated ₹89 Cr annually
- Improving stock turnover from 2.59 to 3.5 could free up ₹45 Cr in working capital
- Expanding rural reach by 15% could add ₹67 Cr in incremental revenue