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Digital Marketing Performance Optimization

Business & Exploratory Data Analysis



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Business Context

- The company operates as a **digital marketing agency** managing multiple client accounts
- Digital advertising is a key channel to **drive traffic, conversions, and revenue**
- The dataset contains **daily advertising performance** data across various clients and campaigns



Objectives

Evaluate the overall effectiveness of advertising campaigns



Identify bottlenecks in the conversion funnel



Provide data-driven strategic recommendations to improve business performance and profitability



This analysis aims to understand how digital advertising performance translates into real business value by examining campaign effectiveness across multiple client accounts

Dataset Overview



- **Dataset :** Data Ads - Kompetisi Data Analysts by inSight Data Batch 01
- **Period :** Jan - Dec 2023
- **Rows :** 4380
- **Columns :** 12
- **Main Metrics :**
 1. CTR
 2. Purchase Value
 3. ROAS
 4. Conversion Funnel Metrics

Performance Metrics Overview



CTR Overall



Total Purchase Value



ROAS Overall

Performance Metrics Overview

- CTR Overall

Overall : 9.93%

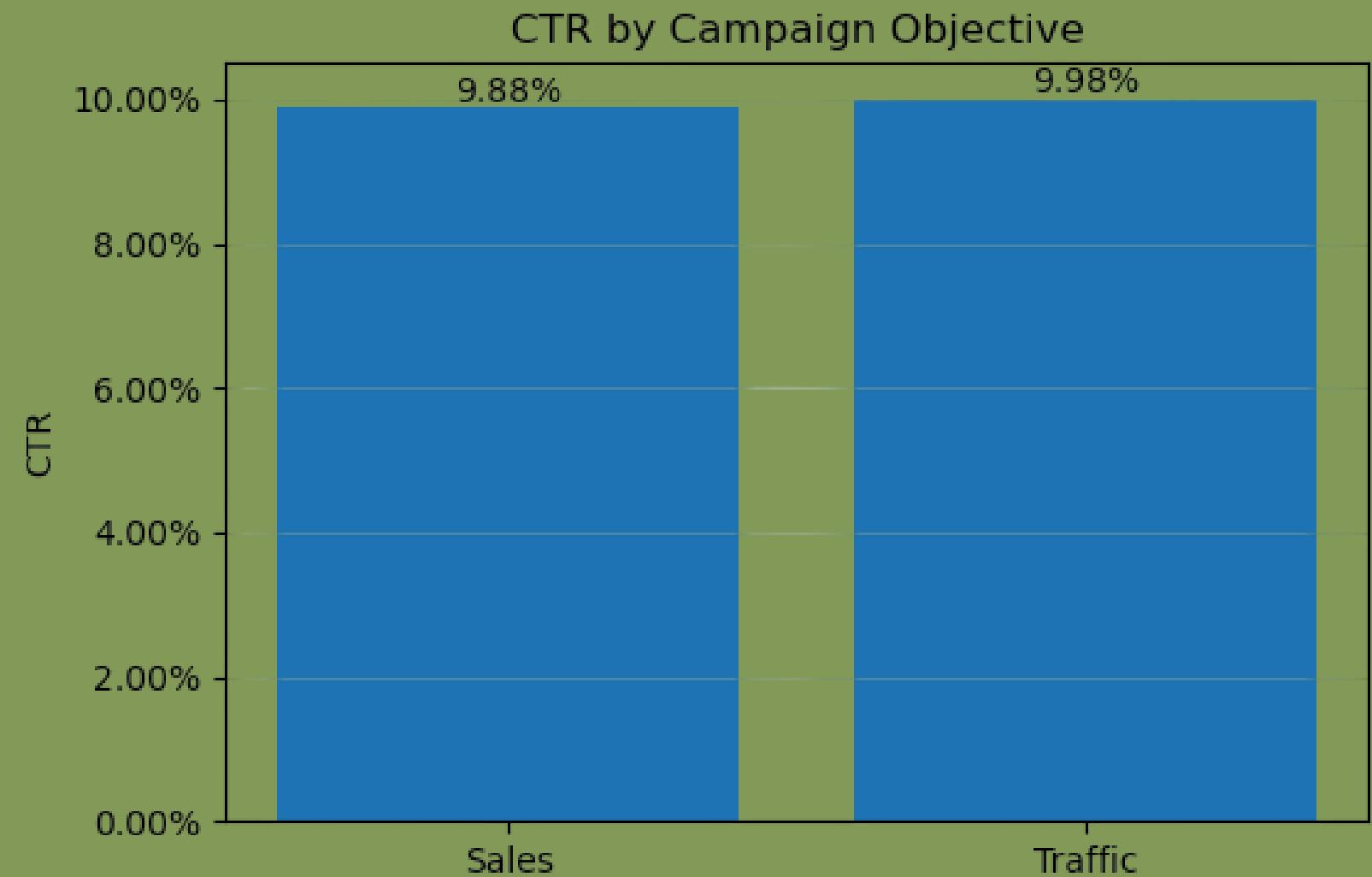
Category	CTR	Status vs Overall
Overall	9.93%	9.93%
Traffic	9.98%	● (+0,05%)
Sales	9.89%	● (-0,05%)

The overall Click-Through Rate reaches **9.93%**

Insight:

Audience engagement is stronger when the primary goal is **information gathering** rather than immediate purchasing.

CTR Comparison by Campaign Objective:



Traffic campaigns achieved **a higher CTR** compared to Sales.

Performance Metrics Overview

- Total Purchase Value

Total Revenue:



IDR 10.450.212.876



The campaign delivered a Total Purchase Value of
IDR 10,450,212,876.

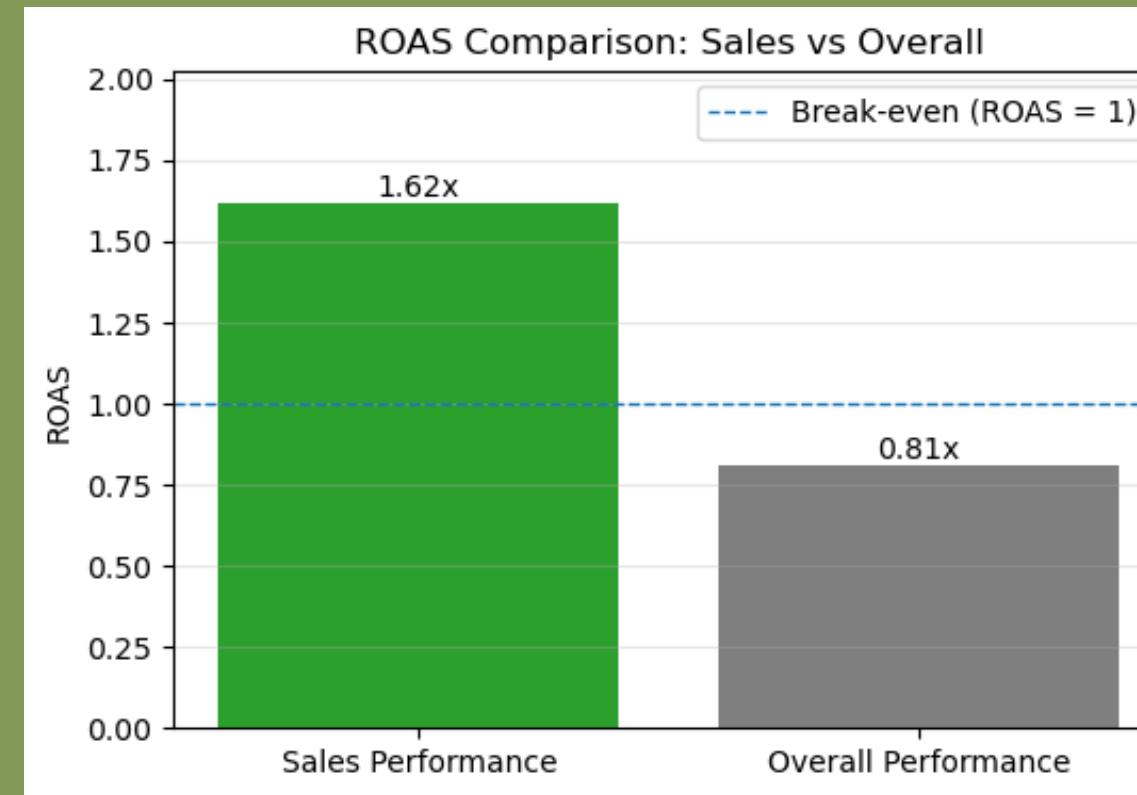
Insight:

This significant revenue milestone reflects a strong conversion performance and underscores the high commercial impact of our current marketing efforts

Performance Metrics Overview

- ROAS Overall

Overall : 0.81x



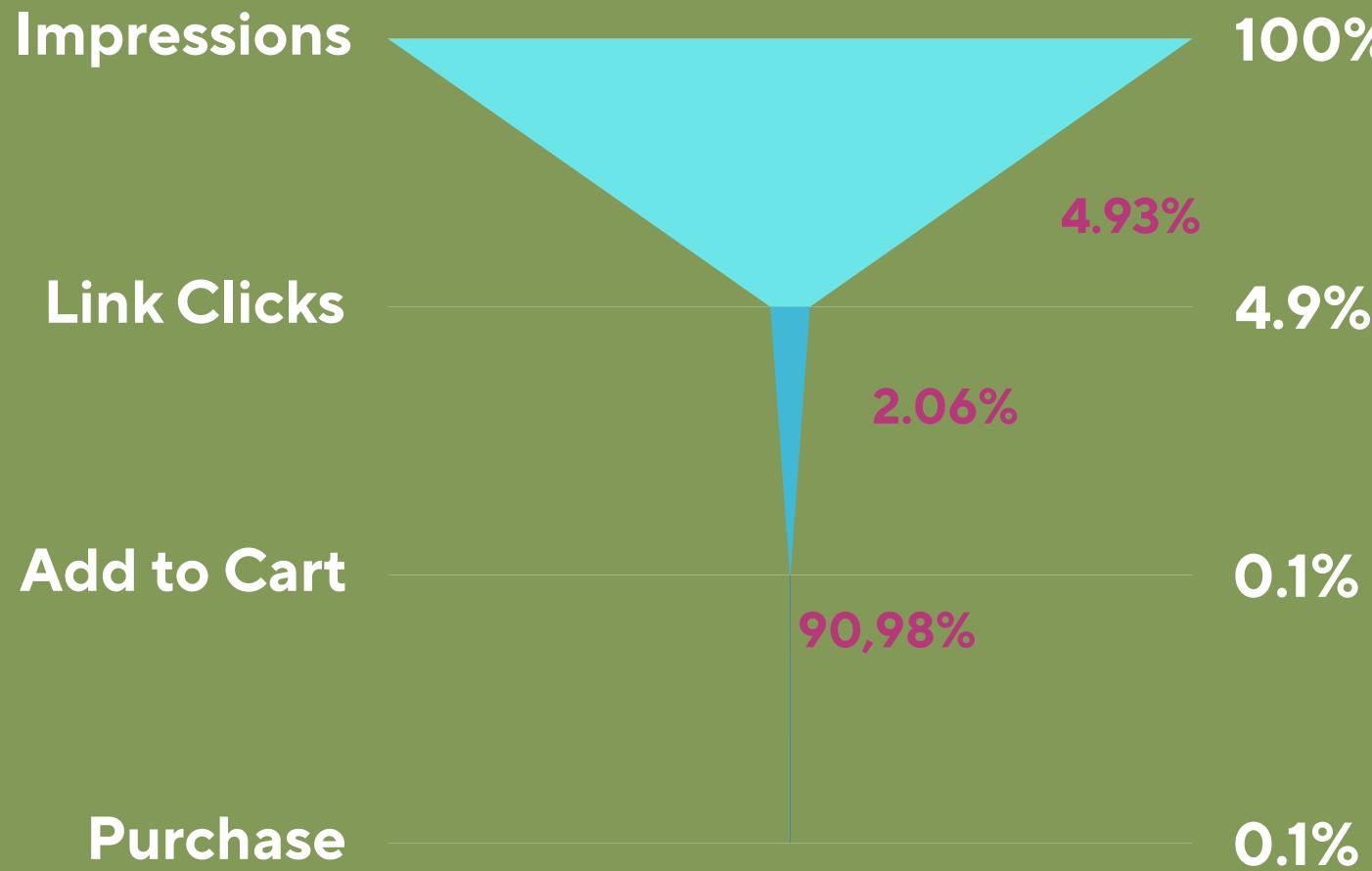
Category	ROAS	Break-Even (ROAS = 1)
Sales	1,62x	● (+0,62)
Overall	0,81x	● (-0,19)

The **Overall ROAS** stands at **0.81x** due to integrated Traffic expenditures, though **Sales-specific campaigns independently** achieved a profitable **1.62x ROAS**

Insight:

- While the **Overall ROAS (0.81x)** appears below the break-even point, this is primarily due to the heavy investment in top-of-funnel Traffic campaigns which prioritize **reach over immediate sales**.
- Looking exclusively at our **Sales-driven efforts**, the **performance is robust at 1.62x ROAS**, proving that the conversion strategy is **highly effective and profitable**.

Conversion Funnel



Sales Funnel Performance Analysis:

Funnel Stage	Efficiency Metric	Status	Key Takeaway
Top Funnel	4.93% CTR (Aggregate)	⚠️ Warning	High reach, but efficiency is diluted due to massive broad targeting.
Middle Funnel	2.06% ATC Rate	❗ Critical	Major leakage point; high bounce rate after landing on the product page.
Bottom Funnel	90.98% Purchase Rate	🟢 Excellent	Exceptional checkout UX; high intent users successfully converted.

Insight:

- Landing Page Friction:** Low ATC rates indicate potential issues with **load speeds, pricing, or trust signals**.
- Traffic Quality:** High clicks (70M+) with low cart additions suggest **low-intent traffic** or **overly broad targeting**.
- Profitability Benchmark:** With ROAS at 0.81x, focus must shift from "**Click Volume**" to "**Conversion Quality** (CRO) to reach break-even

Trend & Time Series Analysis



Trend Performance



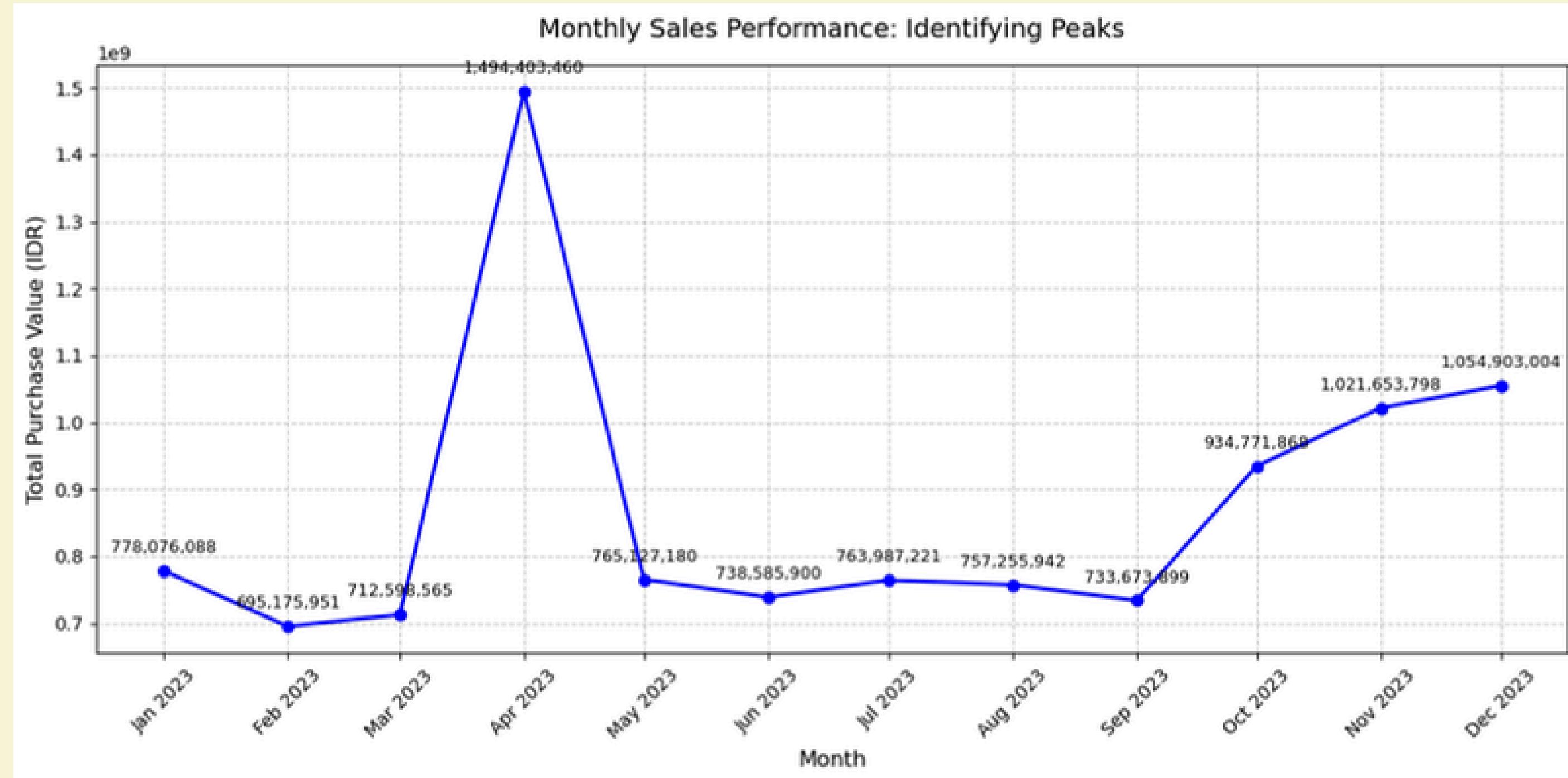
Significant Peak



Seasonality Patterns

Trend & Time Series Analysis

- Trend Performance



2023 ad performance trends showed a **fluctuating pattern** but trended **upwards toward year-end**

Trend & Time Series Analysis

• Trend Performance

Quarterly Performance Analysis:

Q1 (Jan - Mar):

- Performance opened steadily in January, followed by a slight dip in February before a gradual recovery in March

Q2 (Apr - Jun) :

- Achieved an annual all-time high in April, reaching IDR 1.49 Billion.
- Experienced a sharp correction and significant decline throughout May and June following the Lebaran momentum

Q3 (Jul - Sep):

- Achieved an annual all-time high in April, reaching IDR 1.49 Billion.
- Experienced a sharp correction and significant decline throughout May and June following the Lebaran momentum

Q4 (Oct - Dec):

- Demonstrated a consistent positive growth trend month-over-month.
- Reached a secondary peak in December with a total turnover of IDR 1.05 Billion, driven by year-end shopping momentum

Trend & Time Series Analysis

- **Significant Peak**

The most significant performance growth occurred during two key periods:

April 2023 (All-Time Peak):

- Revenue surged drastically to IDR 1,494,403,460, nearly doubling the monthly average

October – December 2023:

- A consistent gradual increase, with December closing as the second peak at IDR 1,054,903,004

Trend & Time Series Analysis

- Seasonality Patterns

Seasonality Patterns & Root Cause Analysis

Based on the data, there is a strong indication of seasonal patterns driven by Indonesian consumer behavior:

Ramadan & Eid al-Fitr Seasonality :

- **Driver:** Eid al-Fitr & Holiday Allowance (THR) disbursement
- **Impact:** Significantly higher consumer purchasing power, making ads far more effective at converting clicks into high-value purchases

• Year-End Seasonality :

- **Driver:** Double-day festivals (10.10, 11.11, 12.12), Christmas , Year-End/New Year sales
- **Impact:** Massive year-end marketplace promotions triggered higher audience engagement and spending compared to the mid-year period (e.g., June–September).

Industry & Account Analysis



**Highest-Grossing
Industry**



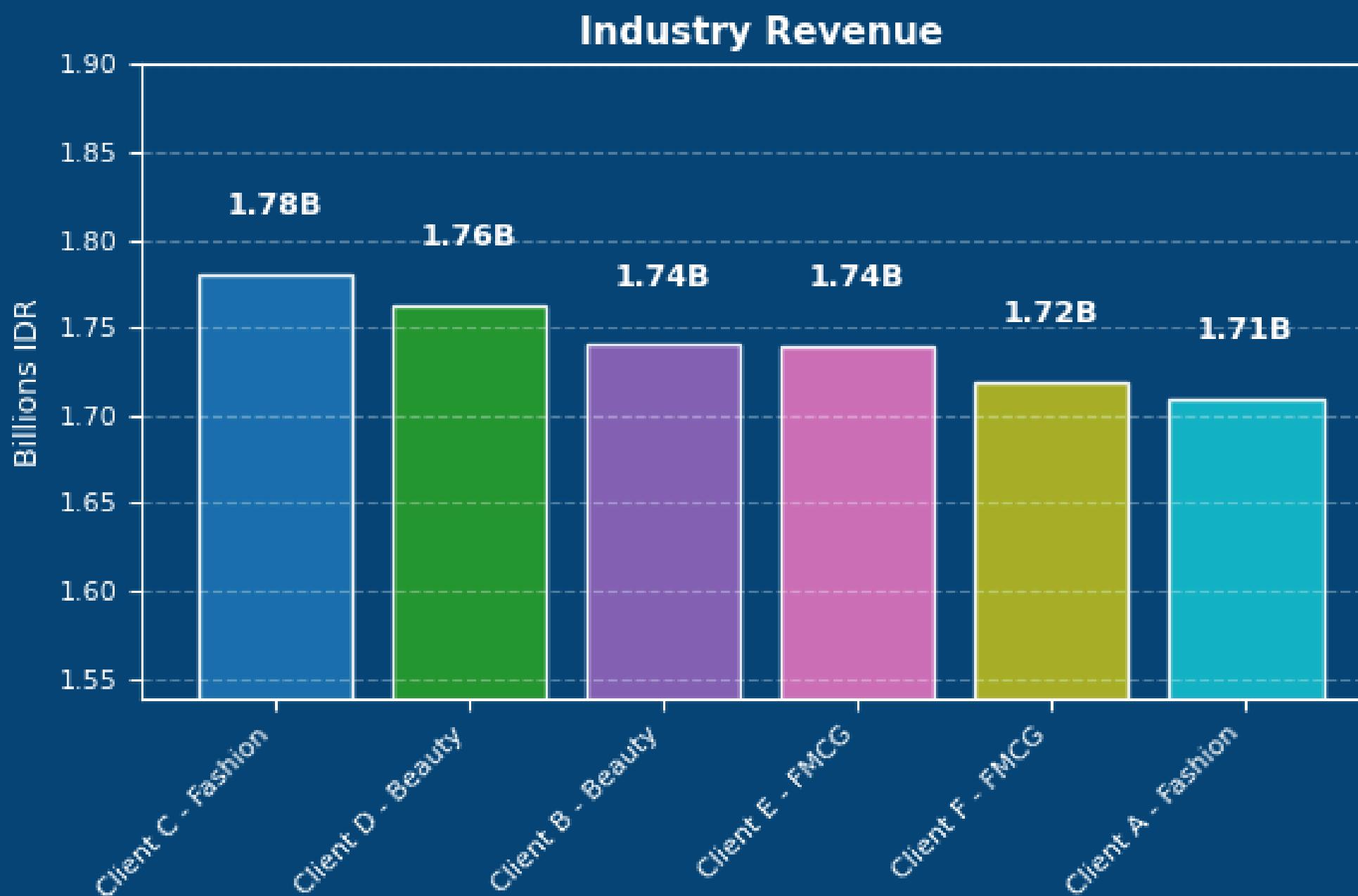
**Top-Performing
Brand**



**Highest ROAS
Industry**

Performance Metrics Overview

• Highest-Grossing Industry

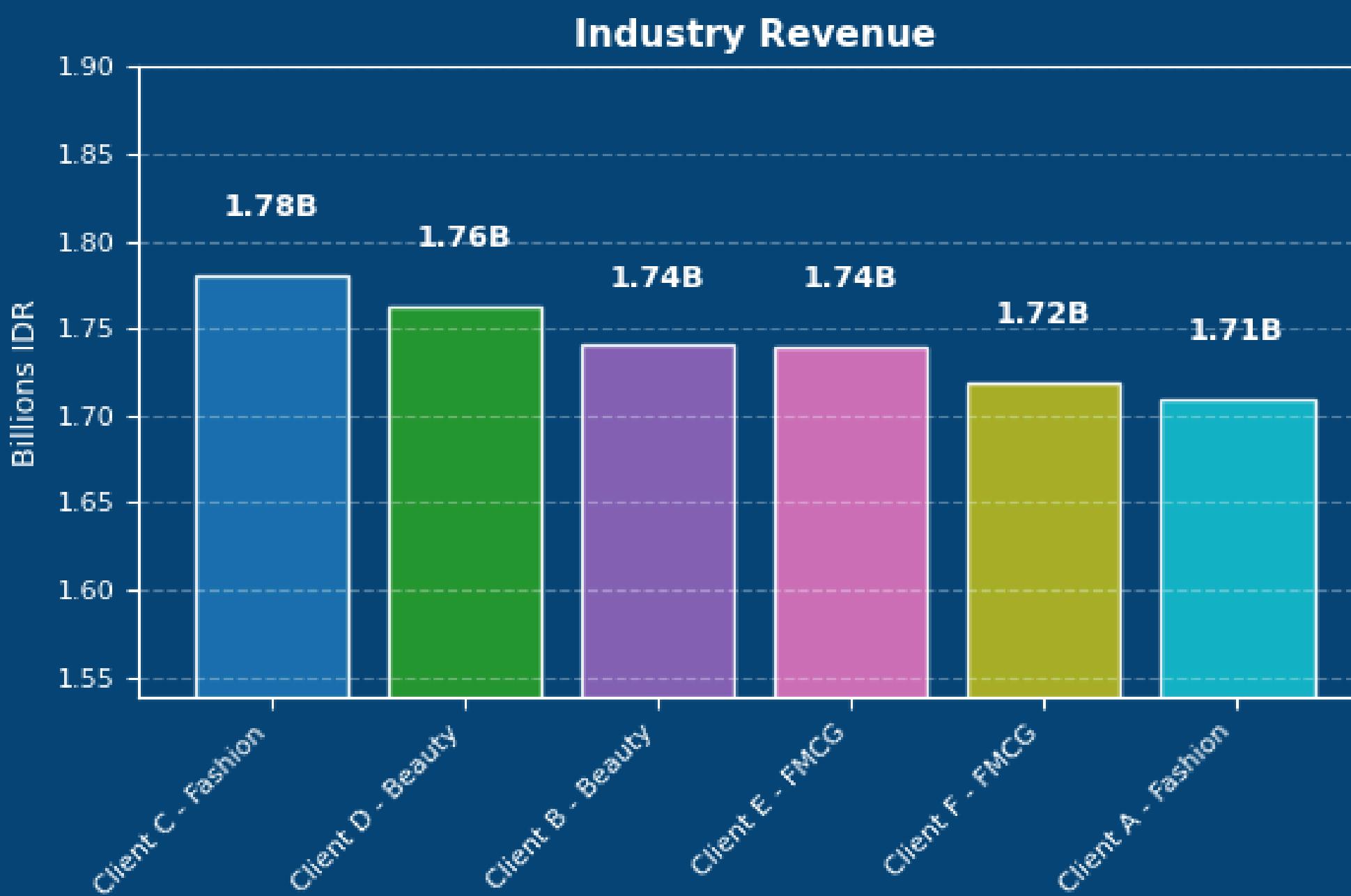


Key Findings:

- **Market Leader:** Client C (Fashion) leads with the highest revenue at **IDR 1.78 Billion**.
- **Top 3 Hierarchy:** **Fashion & Beauty** dominate the top three (Clients C, D, & B), reflecting strong lifestyle purchasing power.
- **Tight Competition:** Only a **IDR 0.07 Billion (70M)** gap between the top (Client C) and bottom (Client A), signaling intense brand competition.
- **Category Distribution:** **FMCG group** (Clients E & F) sits in the lower-mid tier with a collective revenue of **IDR 3.46 Billion**.

Performance Metrics Overview

• Highest-Grossing Industry

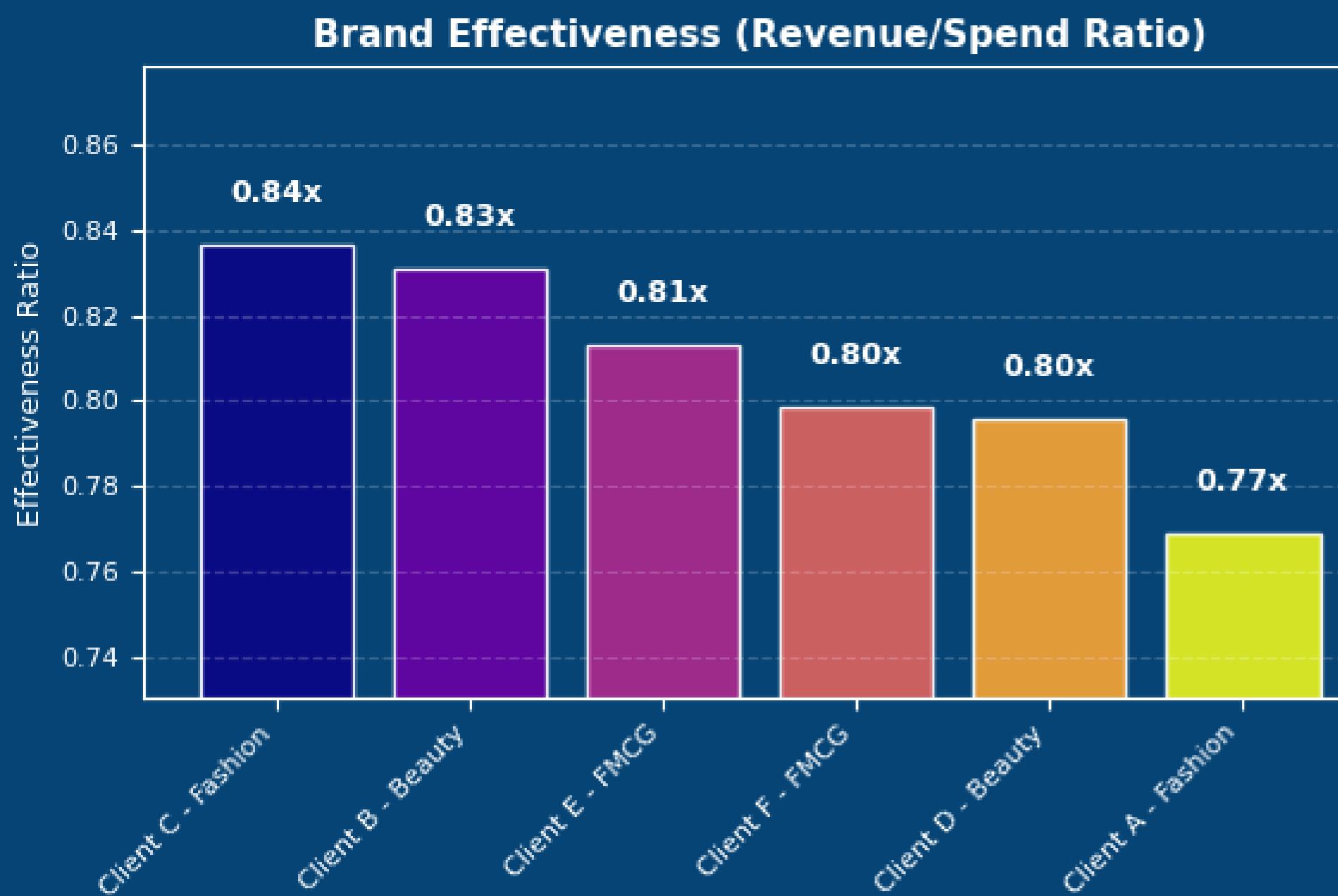


Insights :

- **High-Value Sector (Fashion & Beauty):** Client C & D's lead suggests high loyalty and **strong Average Order Value (AOV)** in the lifestyle segment.
- **FMCG Stability:** While lower in rank, Clients E & F show **stable, low-risk revenue** (1.72B-1.74B) with a predictable ceiling compared to Fashion.
- **Intra-Industry Variance:** Fashion's split (Client C at #1 vs. Client A at #6) proves **campaign strategy** outweighs industry type as a success driver.

Performance Metrics Overview

• Top-Performing Brand

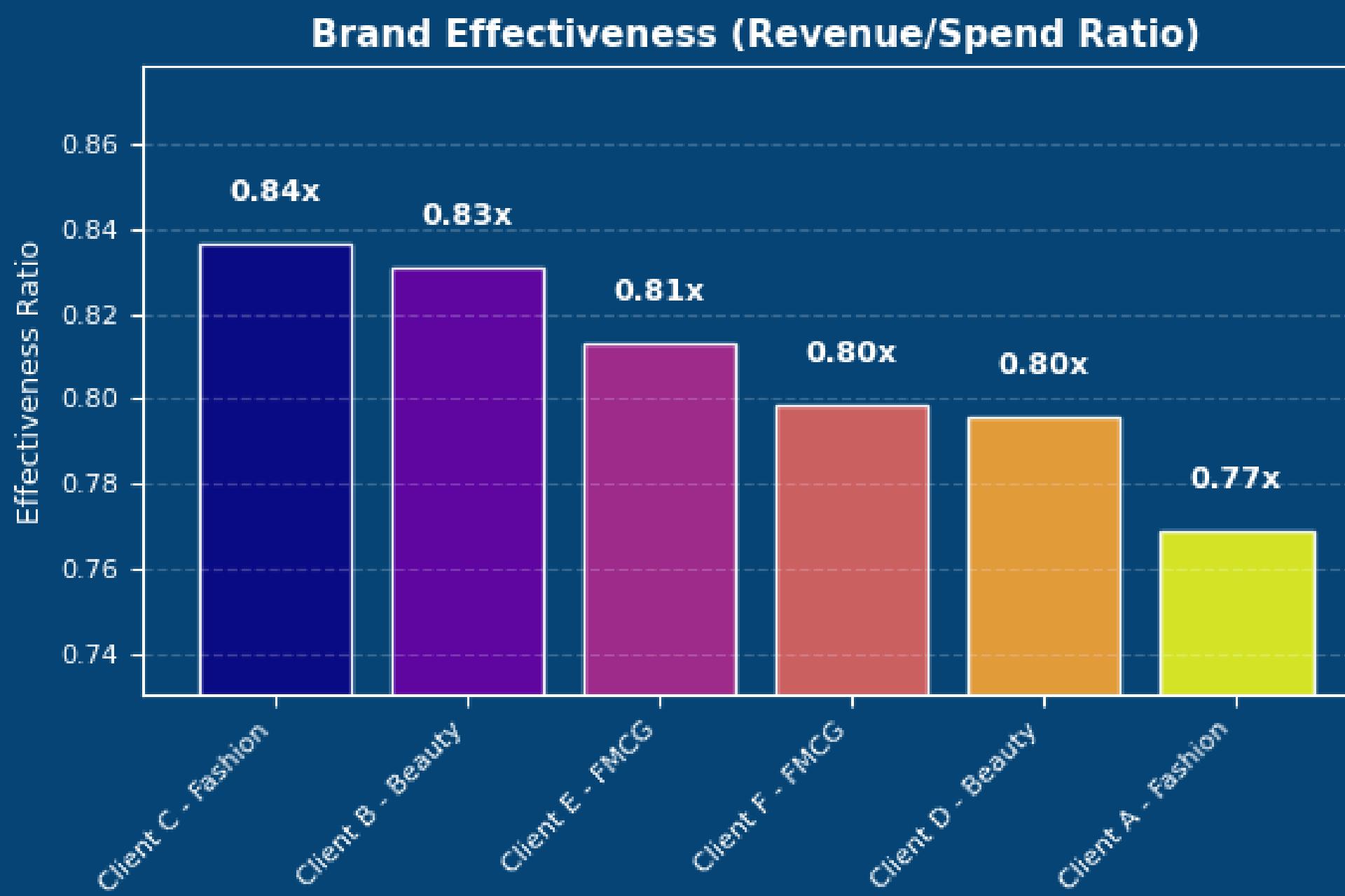


Key Findings:

- **Efficiency Leader:** Client C (Fashion) ranks first in budget effectiveness with a precise **0.84x ROAS**.
- **Stable Performers:** FMCG (Clients E & F) and Beauty (Clients B & D) hold competitive middle positions (**0.80x to 0.83x**).
- **Efficiency Lag:** Client A (Fashion) records the lowest return at **0.77x**.
- **Marginal Variance:** A **0.07 gap** separates the top and bottom performers

Performance Metrics Overview

• Top-Performing Brand



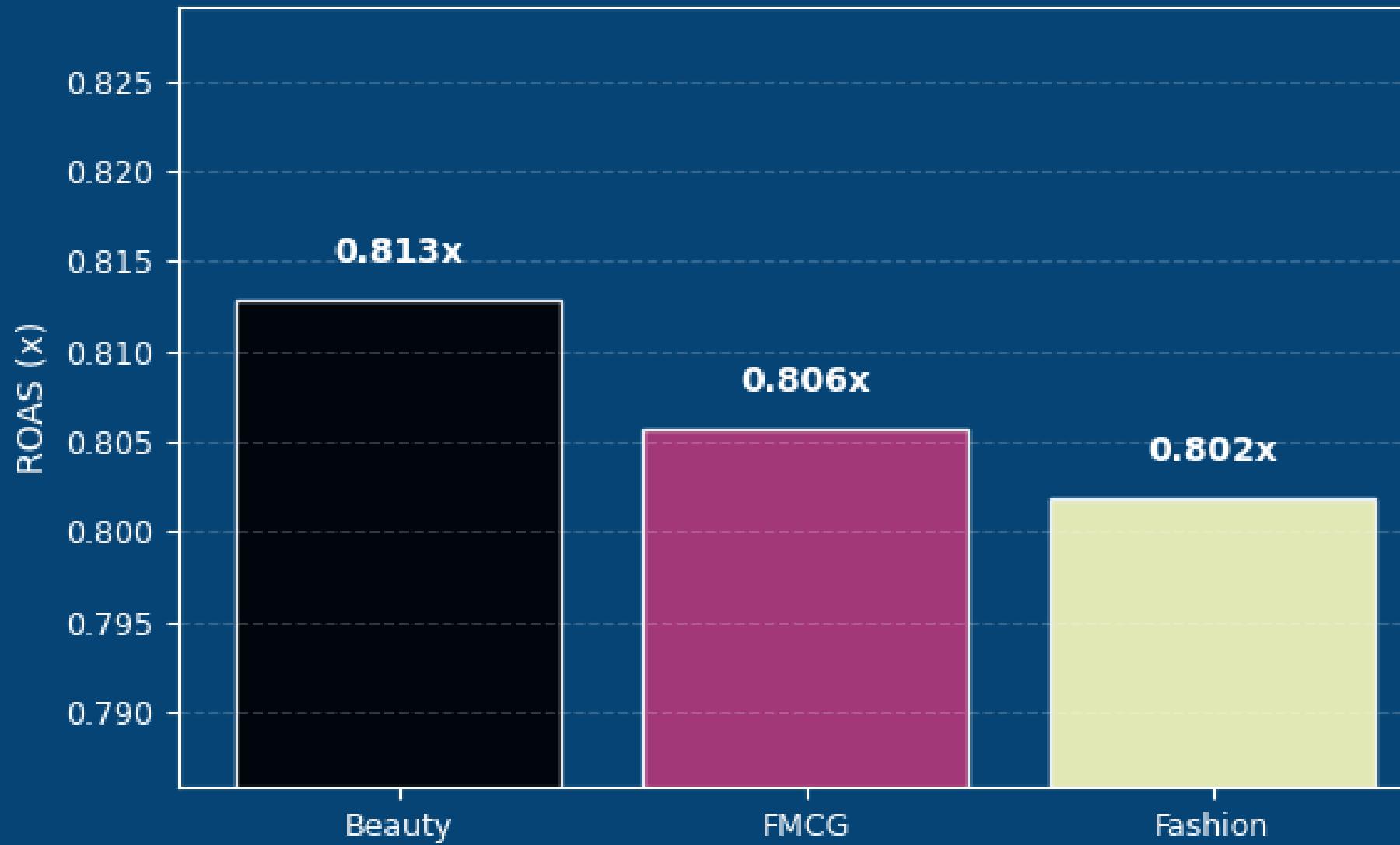
Insights :

- **Sectoral Conversion Superiority:** The 0.84x and 0.83x results for Clients C and B signify **optimal creative resonance** and product relevance—your "Golden Brands".
- **Market Competition:** The tight performance range indicates a **mature and highly competitive ecosystem** where operational efficiency is the key differentiator.
- **Focus on Profitability:** All ratios below 1x signal that current ad spend exceeds direct revenue
- **Intra-Industry Variance:** Fashion's split (Client C at #1 vs. Client A at #6) proves **campaign strategy** outweighs industry type as a success driver.

Performance Metrics Overview

• Highest ROAS Industry

Highest ROAS by Industry



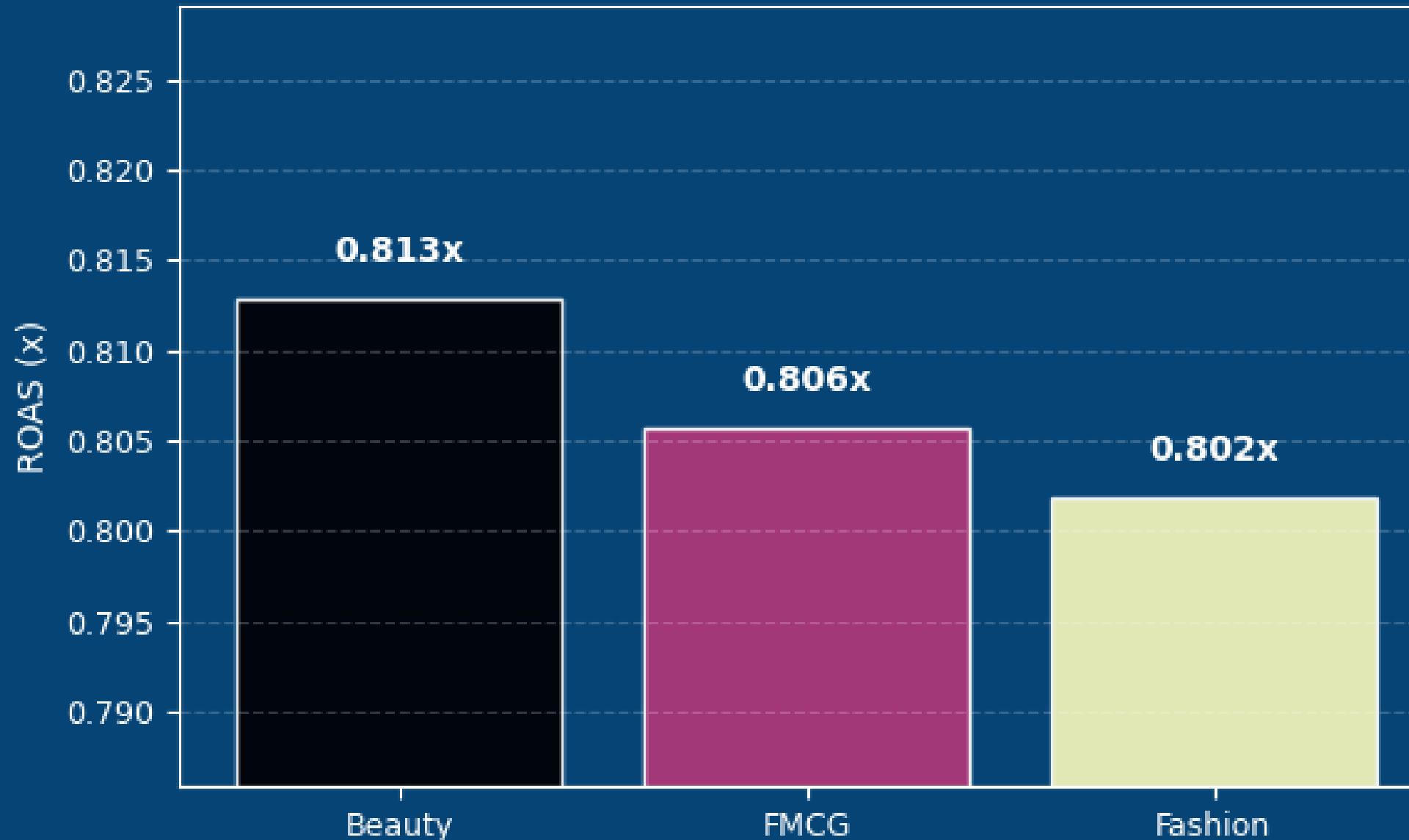
Key Findings:

- **Market Share vs. Efficiency:** Fashion dominates in total revenue volume but records the lowest efficiency with a 0.802x ROAS
- **Top Efficiency Performer:** Beauty is the most efficient sector, achieving the highest ROAS at 0.813x
- **FMCG Performance:** FMCG sits at the median with a stable 0.806x ROAS, representing a low-risk and consistent performance profile

Performance Metrics Overview

• Highest ROAS Industry

Highest ROAS by Industry



Insights :

- **Beauty's Conversion Edge** : Higher audience resonance allows for the most effective message-to-result conversion.
- **FMCG's Resilience** : Consistent performance with efficient acquisition costs for daily essentials.
- **Fashion's Competitive Strain** : Tight margins suggest higher ad costs and market saturation.
- **Collective Health**: Indicates a uniform yet highly competitive efficiency across the portfolio.

Recommendations



Performance Metrics

Funnel & Efficiency Optimization

Time Series Strategy

Industry & Account : Competitive Remediation

Performance Metrics

- **CTR**

Full-Funnel Retargeting & Creative Sync

- Capitalize on the 9.98% Traffic CTR by creating a Custom Audience of non-purchasing visitors
- Retarget them through Sales campaigns using top-performing visuals paired with persuasive copywriting or testimonials to drive conversions

Hard-Sell Landing Page Optimization

- Boost the 0.81x ROAS by integrating urgency elements (countdown timers/limited stock) and high-contrast checkout buttons on landing page
- Run A/B tests between educational and direct-selling content to maximize immediate purchase value

Hard-Sell Landing Page Optimization

- Secure profitability by re-allocating 20% of the Traffic budget to Sales campaigns that already deliver a 1.62x ROAS.
- Narrow the Traffic focus to only the highest-engagement content while prioritizing the 10.45 Billion IDR revenue goal

Performance Metrics

- **ROAS**

Dynamic Budget Allocation

- Execute real-time budget shifts from low-efficiency accounts (Client A: 0.77x ROAS) to high-performing ones (Client C: 0.84x ROAS) to maximize overall profitability

AOV Maximization

- Implement product bundle offers in Sales campaigns to drive higher Average Order Value (AOV)

Placement Optimization

- Cut waste by deactivating underperforming placements (high impressions, zero purchases) to reduce Cost per Purchase and accelerate ROAS recovery.

• Funnel & Efficiency Optimization

Top of Funnel (TOFU) - Strategy: "Quality over Quantity"

- **Creative Refresh:** Combat "Creative Fatigue" by launching 3-5 new ad variations bi-weekly to maintain high engagement levels.
- **LAL Refinement:** Shift budget from broad targeting to high-intent 1% Lookalike Audiences based on purchase data to improve conversion quality

Middle of Funnel (MOFU): Plugging the Leak

- **Landing Page Speed Audit:** Optimize technical friction (3-second load target) to improve the current 2.06% ATC Rate.
- **Social Proof & Anchoring:** Implement "Best Seller" badges and Bundle Deals to nudge the 70M clickers toward the "Add to Cart" button

Bottom of Funnel (BOFU): Maximizing LTV

- **Abandoned Cart Recovery:** Capture the "low-hanging fruit" (the 9.02% non-buyers) via automated Email or WhatsApp reminders.
- **Post-Purchase Upsell:** Deploy "One-Time Offers" immediately after payment to boost Average Order Value (AOV) and overall ROAS.

Time Series Strategy

Weekly Performance Pacing (Day-of-Week Optimization)

- **Peak Conversion Allocation:** Identify high-converting days (e.g., weekends/payday) and inject 20% additional budget to maximize ROAS
- **Strategic Budget Cooling:** Scale back spending on low-intent days where ATC rates drop below 2.06% to eliminate waste

High-Intent Conversion Acceleration (The 91% Conversion Rule)

- **Strategic Scaling:** Since checkout conversion is already at 91%, focus scaling efforts during peak momentum (e.g., Payday or 12.12 sales).
- **Automated Rules:** Implement Automated Scaling Rules to increase budget by 20% during hours with the highest ATC-to-Purchase conversion to maximize instant ROI.

Creative Fatigue Management (Fortnightly Refresh)

- **14-Day Asset Rotation:** Execute bi-weekly visual updates to stabilize the 4.93% Aggregate CTR and prevent ROAS decay from ad fatigue.
- **Momentum-Based Syncing:** Align creative messaging with seasonal triggers to scale the current 1.62x Sales ROAS further.

Industry & Account: Competitive Remediation

Fashion Category Paradox

- Conduct a comparative audit between **Client C (0.84x)** and **Client A (0.77x)** to identify performance gaps within the same industry and implement corrective measures

Industry Prioritization

- Allocate resources toward high-stability sectors, specifically **Beauty** (Client B) and **FMCG**, which consistently maintain effectiveness above the 0.80x benchmark

Success DNA Transfer

- Replicate high-performing creative frameworks and campaign structures from top-tier accounts (e.g., Client B's **~15% CTR**) to underperforming accounts to elevate baseline results

Portfolio Rebalancing

- Secure overall profitability by strategically shifting budgets from low-efficiency accounts (Client A: **0.77x**) to higher-yield accounts within the portfolio

CONCLUSIONS

- **HIGH-LEVEL CONVERSION DISCONNECT:**

Content strategy excels at capturing attention (9.93% Mean CTR), yet faces a massive failure in converting traffic into purchase intent, evidenced by a stagnant 2.06% Add-to-Cart (ATC) Rate

- **PROFITABLE SALES CORE:**

While the 0.81x Overall ROAS appears low due to heavy Traffic investment, the dedicated Sales strategy remains highly robust at 1.62x ROAS, signaling immense profit potential if budgets are strategically re-focused



- **FLAWLESS BOTTOM-FUNNEL EFFICIENCY:**

Operational checkout processes are performing at an elite level with a 90.98% Purchase Rate, proving that once an audience enters the cart, conversion is nearly guaranteed

- **BRAND PERFORMANCE DISPARITY:**

There is a significant efficiency gap across accounts; Client C (0.84x) leads in performance, while Client A (0.77x) represents the largest budget leak requiring immediate remediation

THANK YOU

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