

Professional Business Report With Final Conclusions

--by Shobhit Gupta

➤ Executive Summary of Segmentation Insights

Based on our K-Means RFM analysis, we've uncovered three distinct customer groups—each with clear behavioral patterns and business implications:

⌚ Cluster 2 – Champions

- **Average Spend:** ₹ 4,930.26 (highest of all segments)
- **Order Frequency:** 288.31 orders on average (most loyal purchasers)
- **Recency:** Last purchase ~ 21.7 days ago (extremely engaged)

Insight: These are our VIP customers. They drive the bulk of revenue and purchase very frequently.

👑 Cluster 0 – Balanced Shoppers

- **Average Spend:** Mid-range (between ₹ 388 and ₹ 4,930)
- **Order Frequency:** Moderate number of purchases
- **Recency:** Neither too recent nor fully dormant

Insight: This core segment represents steady, dependable buyers—ripe for upsell and cross-sell initiatives.

▶ Cluster 1 – At-Risk Customers

- **Average Spend:** ₹ 388.57 (lowest spenders)
- **Order Frequency:** 25.5 orders on average (infrequent purchasers)
- **Recency:** Last purchase ~ 248.3 days ago (highly dormant)

Insight: These customers have lapsed. Without intervention, they risk churn.

★ Key Takeaways

- **Champion segment (Cluster 2)** is our most valuable. Prioritize them with premium loyalty perks and exclusive previews.
- **Balanced segment (Cluster 0)** offers growth potential—personalized recommendations and targeted bundles can push them toward “Champion” status.
- **At-Risk segment (Cluster 1)** requires re-engagement: win-back emails, special discounts, or “we miss you” offers to reignite activity.

Segment	Avg. Spend (₹)	Avg. Frequency (orders)	Avg. Recency (days)	Primary Opportunity
Champions (2)	4,930.26	288.31	21.74	Deepen loyalty & advocacy
Balanced (0)	Mid-range	Moderate	Mid-range	Upsell & cross-sell
At-Risk (1)	388.57	25.50	248.30	Win-back & re-engagement

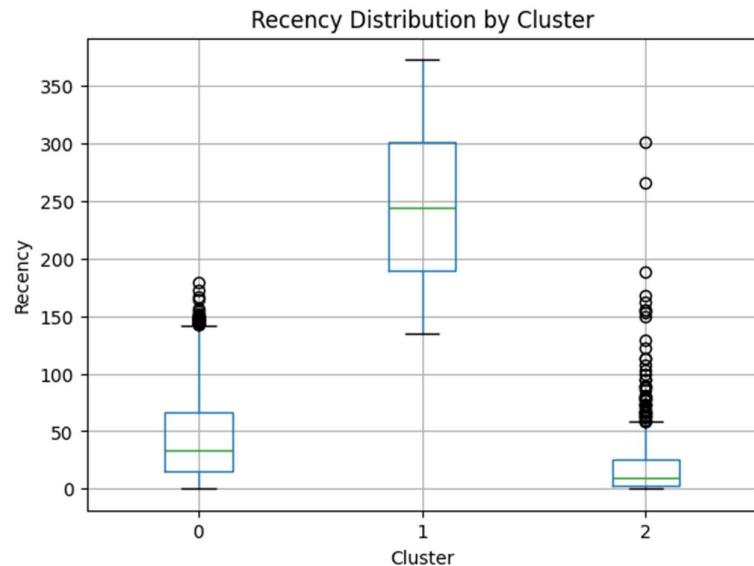
➤ Visualizations, Cluster Profiles, And Actionable Insights For Stakeholders.

Introduction

Using RFM-based K-Means clustering on our Online Retail data, we identified three distinct customer segments. This report gives the key visuals, segment profiles, and actionable recommendations for stakeholders.

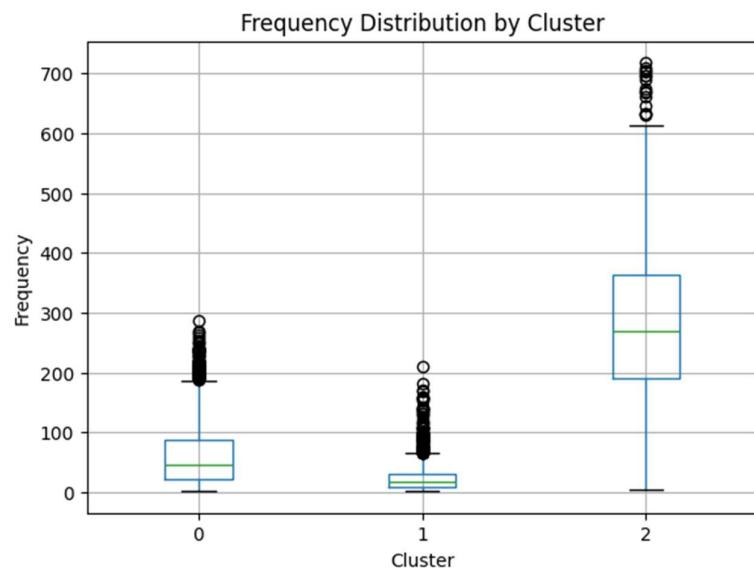
Visualizations

Figure 1. Recency Distribution by Cluster



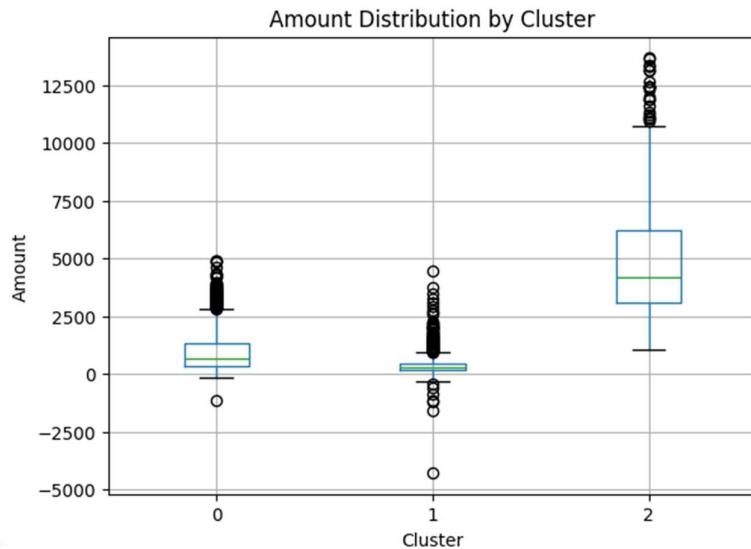
Interpretation: Cluster 1 shows the highest recency (longest time since last purchase), Cluster 2 the lowest (most recent buyers).

Figure 2. Frequency Distribution by Cluster



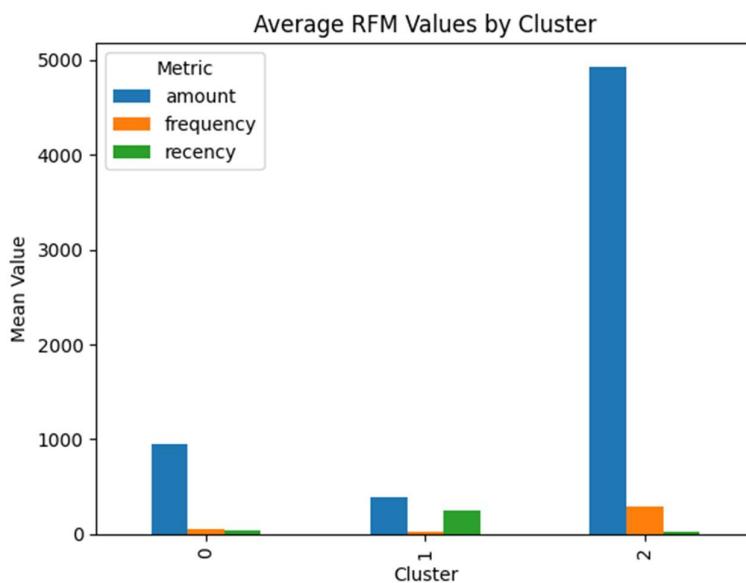
Interpretation: Cluster 2 orders most often, Cluster 1 the least.

Figure 3. Amount Distribution by Cluster



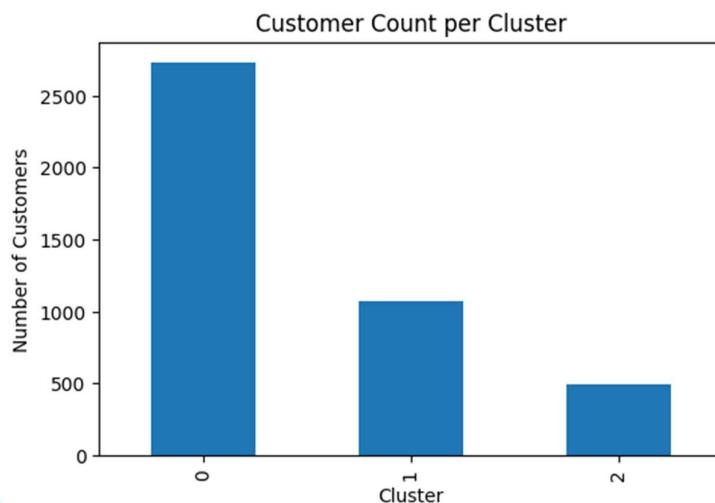
Interpretation: Cluster 2 drives the highest order values, Cluster 1 the lowest.

Figure 4. Average RFM Values by Cluster

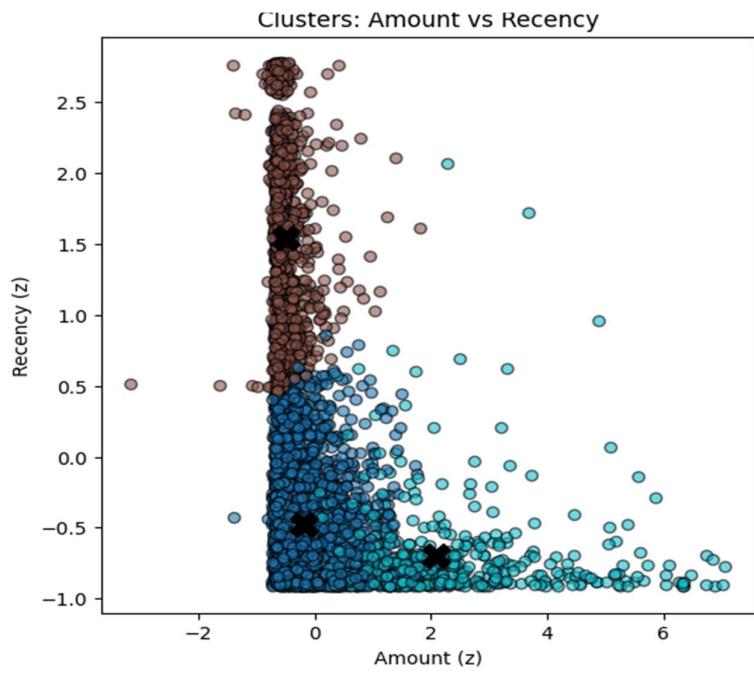


Interpretation: A side-by-side bar chart confirming Cluster 2's dominance on all three metrics.

Figure 5. Customer Count per Cluster

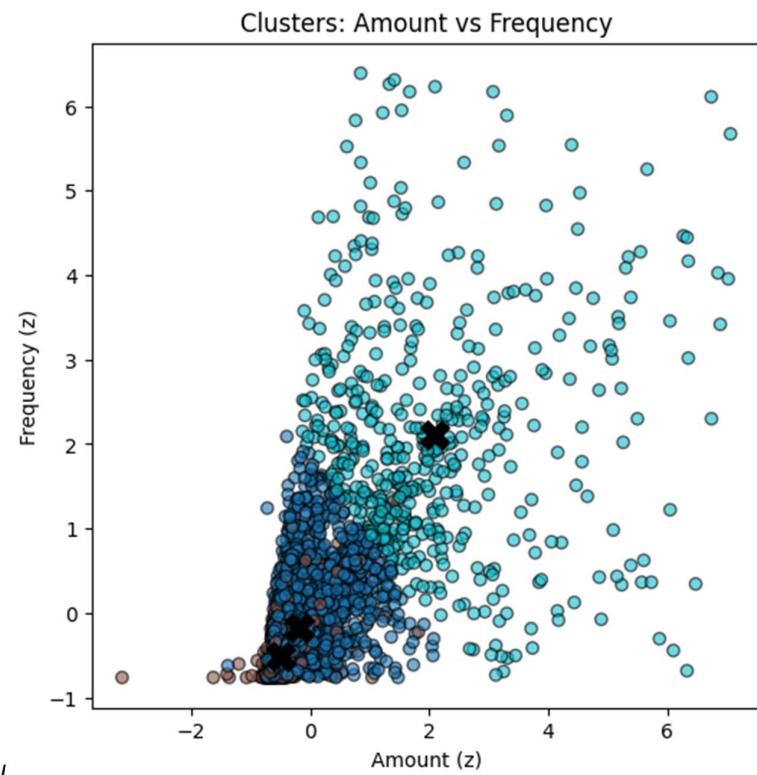


Interpretation: The majority of customers fall into Cluster 0 (Balanced Shoppers), followed by Clusters 1 and 2.



Interpretation: Shows how high-spenders (Cluster 2) also purchase most recently; the “dormant” group (Cluster 1) spends little and hasn’t purchased in a long time.

Figure 7. Clusters: Amount vs. Frequency



Interpretation: Illustrates clear separation: Cluster 2 (high amount, high frequency), Cluster 1 (low amount, low frequency), Cluster 0 in between.

Cluster Profiles

Cluster	RFM Behavior	Profile
0	Mid-range spend, moderate order frequency, average recency	Balanced Shoppers: our core customer base—reliable buyers with room to grow via targeted offers.
1	Lowest spend (₹388.57 avg), fewest orders (25.5 avg), longest dormancy (248.3 days avg)	At-Risk Customers: lapsed purchasers requiring re-engagement.
2	Highest spend (₹4,930.26 avg), most frequent (288.31 orders avg), most recent (21.74 days avg)	Champion Buyers: VIP segment driving highest revenue—prime candidates for loyalty programs.

Actionable Insights

1. Reward & Retain Champions (Cluster 2):

- **Tactics:** VIP loyalty tiers, exclusive previews, referral incentives.
- **Goal:** Cement advocacy and maximize repeat purchase value.

2. Upsell Balanced Shoppers (Cluster 0):

- **Tactics:** Personalized cross-sell bundles, dynamic product recommendations, flash promotions.
- **Goal:** Elevate mid-tier buyers into Champions.

3. Win-Back At-Risk Customers (Cluster 1):

- **Tactics:** "We miss you" email series, time-limited discounts, cart-abandonment reminders.
- **Goal:** Reactivate dormant customers and reduce churn.

Prepared by: Shobhit Gupta
 (Confidential – For internal stakeholder use only)