Amazon – Global E-Commerce Intelligence Suite – Customer Intelligence & Segmentation

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The Customer Intelligence & Segmentation Dashboard provides a comprehensive analytical view of customer behaviour within a global e-commerce business model inspired by Amazon. Built using a synthetic dataset of 100,000 transaction-level records, the dashboard focuses on customer value measurement, loyalty behaviour, subscription penetration, and geographic segmentation performance.

Designed in Power BI using a structured star schema data model, this dashboard enables executive leadership, customer strategy teams, and marketing stakeholders to analyze customer intelligence through interactive filters and structured visual storytelling.

Through KPI cards, slicers, behavioural segmentation visuals, value-based scatter analysis, and geographic performance matrices, the dashboard delivers a consolidated and executive-ready view of customer performance and engagement.

Fig 3.1 Customer Intelligence & Segmentation

Executive Storyline

The dashboard follows a structured customer analytics narrative:

- Establish overall customer scale and engagement
- Evaluate customer value and lifetime contribution
- Analyze loyalty and repeat purchase behaviour
- Identify high-value customer clusters
- Assess subscription penetration (Prime)
- Compare geographic and segment-level performance

This layered approach ensures leadership can move from high-level metrics to deep behavioural insights and strategic segmentation decisions.

Visuals and Description

1. KPI Cards (Executive Customer Snapshot)

Six KPI cards provide an immediate summary of customer performance:

1. Total Customers: Distinct active customers within the selected filter context.
2. Total Orders: Total number of transactions generated.
3. Average Order Value (AOV): Revenue per order.
4. Customer Lifetime Value (LTV): Revenue generated per customer.
5. Repeat Purchase Rate (%): Percentage of customers placing more than one order.
6. Prime Customer (%): Share of Prime customers within the total customer base.

These KPIs establish scale, loyalty strength, and customer value concentration at an executive level.

2. Slicers (Dynamic Filtering Controls)

The dashboard includes three interactive slicers:

1. Date (Between Range Filter)
2. Customer Segment (Prime / Non-Prime)
3. Customer Country

All visuals dynamically respond to these filters, enabling multi-dimensional customer analysis.

3. Repeat Purchase Rate Gauge

A gauge visualization tracks:

- Repeat Purchase Rate (%)
- Strategic benchmark target (~40%)

This visual provides an immediate health check of customer retention and loyalty performance.

4. Customer Order Frequency Distribution (Clustered Column Chart)

This visual segments customers into order frequency bands:

- 1 Order
- 2–3 Orders
- 4–5 Orders
- 6+ Orders

Values: Total Customers

It highlights:

- Proportion of one-time buyers
- Strength of repeat purchase behaviour
- Size of highly loyal customer cohorts
- Potential retention opportunities

These visual forms the foundation of behavioural segmentation analysis.

5. Customer Value vs Loyalty (Scatter Plot)

This scatter plot analyzes customer value against purchase frequency:

- X-Axis: Orders per Customer
- Y-Axis: Revenue per Customer
- Details: Customer ID
- Legend: Customer Segment

It identifies strategic clusters:

- High frequency & high value (VIP customers)
- High value but low frequency (at-risk customers)
- Frequent but low-value buyers
- Low engagement customers

This visual supports targeted retention campaigns and loyalty program optimization.

6. Customer Segment × Country Performance (Matrix)

This matrix provides a cross-sectional analysis of segmentation and geography:

Rows: Customer Segment

Columns: Customer Country

Values included:

- Total Customers
- Total Revenue
- Average Order Value
- Repeat Purchase Rate (%)

This visual enables:

- Prime penetration analysis by country
- Geographic loyalty comparison
- Revenue concentration by segment
- Strategic market prioritization

7. Prime vs Non-Prime Distribution (Pie Chart)

Legend: Customer Segment

Values: Total Customers

This visual illustrates subscription penetration within the overall customer base and supports Prime strategy evaluation.

Business Value

This dashboard enables stakeholders to:

- Monitor customer growth and engagement in a consolidated view
- Measure repeat purchasing behaviour and loyalty strength
- Identify high-value and high-risk customer clusters
- Evaluate Prime membership penetration

- Compare geographic performance across segments
- Support data-driven retention and segmentation strategies

By integrating executive KPIs, behavioural banding, scatter-based clustering, geographic segmentation, and subscription analysis, the dashboard delivers a structured and enterprise-ready customer intelligence framework.

Tools & Data

- Visualization Tool: Power BI
- Dataset: Fully synthetic global e-commerce dataset
- Record Count: 100,000 transaction-level records
- Time Period: 2021–2024
- Model Design: Star Schema (Fact_Orders connected to Date, Customer, and Product dimensions)
- Purpose: Customer analytics, segmentation modelling, and enterprise BI portfolio demonstration