E-Commerce Customer Segmentation

Happy customers, thriving business.

INTRODUCTION

As a data analyst, I undertook a comprehensive analysis of an online retail dataset sourced from Kaggle, which includes two separate time frames: 2009-2010 and 2010-2011. To facilitate meaningful insights, I merged these datasets and performed rigorous data cleaning. This involved identifying and rectifying missing values in essential columns, particularly **Customer ID** and **Description**. The final dataset encompasses critical columns such as **Invoice Date**, **Invoice**, **Customer ID**, **Description**, **Price**, **Quantity**, and **Stock Code**. By meticulously preparing this structured dataset, I aimed to lay a solid foundation for insightful analysis and interpretation of customer behavior.

CUSTOMER SEGMENTATION

1 Customer Count by Segment: We identified three distinct customer segments, with a total of **884K customers**. Among these, **3.46K** are classified as Regular customers and **2.13K** as VIP customers.

2 Churn Analysis: Our analysis revealed **782K** customers who have not churned compared to **101K** who have. This indicates significant potential for retention strategies targeting at-risk customers.

3 Total Revenue Insights: We discovered that the majority of our revenue, totaling **$9.40M**, comes from the UK, showcasing the region's importance to our business.

RECOMMENDATIONS

Based on the customer segmentation and churn analysis, it is recommended to implement targeted marketing campaigns for high-value and at-risk customers to enhance engagement and retention. Focus on improving customer experience through feedback, and consider product bundling to increase order value. Regularly monitor RFM scores to track customer behavior shifts, and tailor communication based on customer segments. Prioritize the UK market while exploring underperforming regions, and continuously update visualizations to keep stakeholders informed.
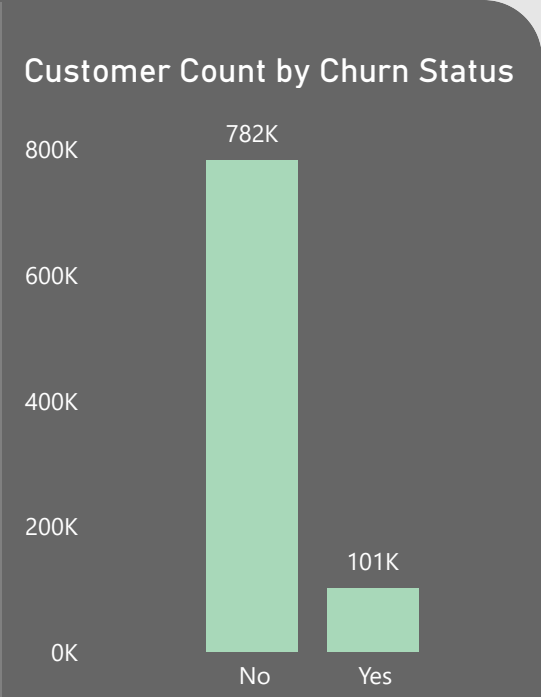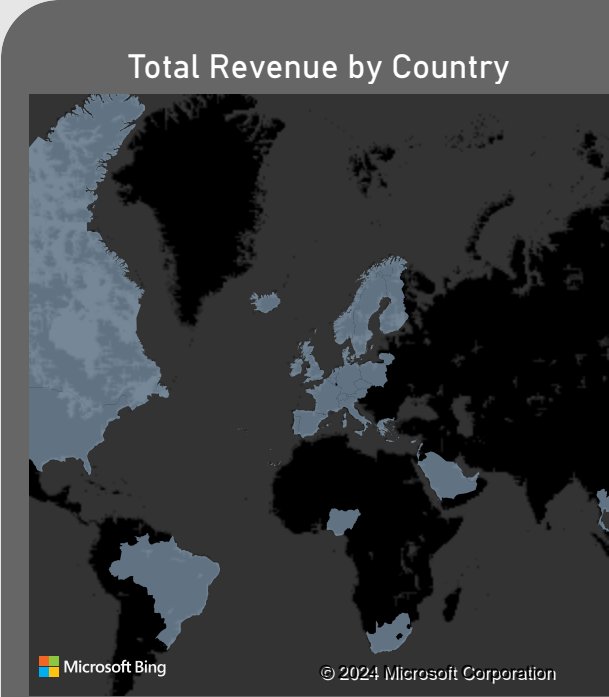
KPI

Customer Count	Segment Count
883K	3

Total Revenue	Average RFM
9M	11

Total Revenue by Country

Customer Count by Churn Status

800K	
782K	
600K	
400K	
200K	
101K	
0K	
No	Yes

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Segment Count
3

Total Revenue
9M

Average RFM
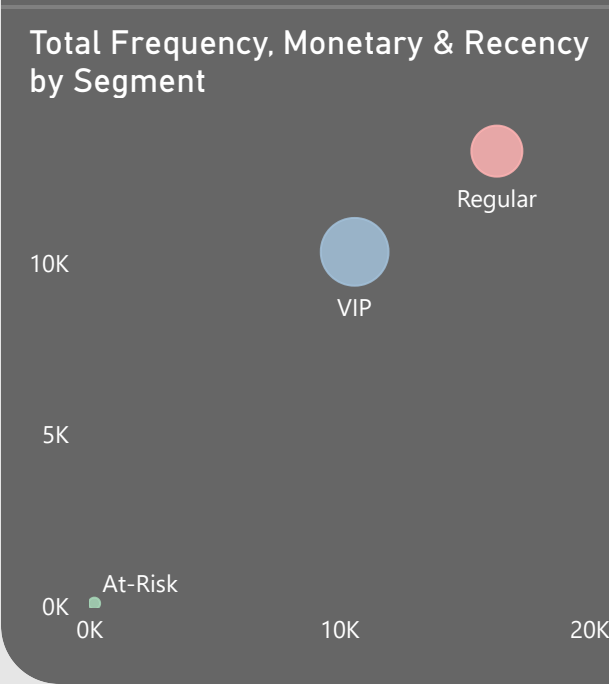**11**

FILTER PANEL

Country

All

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Customer Segmentation

Total Frequency, Monetary & Recency by Segment

10K	Regular
	VIP
5K	
0K	At-Risk
0K	10K	20K

Customer Count by Segment

Regular	VIP
3.46K	2.13K

Customer ID	Frequency	Monetary	Recency
12748.0	6644	32,010.84	21
12921.0	1238	22,233.12	24
13081.0	1659	31,111.97	22
13089.0	2255	49,260.53	25
14096.0	4593	38,289.06	25
14156.0	2517	48,149.86	30
14298.0	1159	27,509.19	29
14606.0	6333	23,245.74	22
14911.0	8479	158,193.54	22
15039.0	2575	27,603.91	30
15311.0	3745	30,379.77	21
17675.0	857	20,949.34	22
17841.0	12347	51,892.55	22
17850.0	2749	52,332.23	323
Guest	207919	1,463,474.30	21

Customer Count by Segment & Recency

Monetary: High | Low | Medium

	Regular	VIP	At-Risk
3K	1.1K		
2K	2.3K	2.1K	
1K			
0K			