

Project Overview:

The project involves analysing transactions data from a UK-based non-store online retail business specializing in unique all-occasion gifts. The dataset spans from December 2010 to December 2011 and includes information such as invoice numbers, product codes, descriptions, quantities, dates, prices, customer IDs, and countries. Negative quantities denote return transactions, while zero-unit prices suggest free items. The goal likely revolves around understanding customer behaviour, sales patterns, and potentially optimizing business strategies such as inventory management and marketing efforts.

DATA INSIGHTS OVERVIEW

Sales Analysis by Country

United Kingdom: - Total Orders: 299,750 - Total Sales: £3,669,450.23 - Total Quantity: 2,153,681

Top Selling Products -

PARTY BUNTING: - Total Orders: 1,268 - Total Sales: £34,952.85 -

WHITE HANGING HEART T-LIGHT HOLDER: - Total Orders: 1,668 - Total Sales: £31,763.76

Customer Demographics - Total Customers (UK): 299,750 - Total Customers (Foreign): - Germany: 7,439 - France: 6,882

Top Customers Analysis –

Highest Sales: - CustomerID: 14911.0 - Sales: £84,635.89 - Quantity: 49,350

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ARPU Analysis - Average Revenue Per User: - Highest ARPU - CustomerID 16716.0 ARPU - £ 166.80

Top customer ARPU CustomerID: 14911.0 - ARPU: £18.93 - CustomerID: 14096.0 - ARPU: £8.16

RFM Segmentation Analysis- Mean Values - Can't Loose Them: - Recency: 26.3 days - Frequency: 11.2 orders - Monetary Value: £2,020.6

This overview provides a snapshot of key insights from the dataset, including sales analysis, top products, customer demographics, top customers, ARPU analysis, and RFM segmentation.

TOP SALES AND TOP SELLING PRODUCTS

Insight: United Kingdom dominates sales, contributing significantly to total revenue.

Recommendation: Focus on leveraging success in the UK market to drive expansion efforts in foreign markets & Continue efforts to engage and retain UK customers through personalized marketing campaigns and loyalty programs.

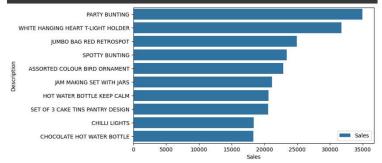
Implement targeted marketing campaigns to attract and retain customers in high-potential countries like Germany, France, and EIRE. Explore opportunities to expand customer base in other countries by tailoring marketing efforts to local preferences and behaviours.

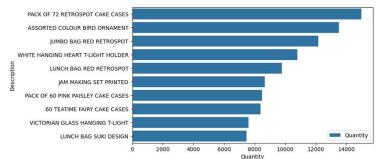
Insight: Higher quantity of sales does not guarantee the higher sales earned and There is only 3 products that have the highest quantity and sales out of total 3858 products

Recommendation: Allocate resources towards promoting top-selling products such as "PARTY BUNTING" and "WHITE HANGING HEART T-LIGHT HOLDER".

Consider bundling or cross-selling strategies to increase sales of related products.

	Total_Order	Sales	Quantity
Country			
United Kingdom	299750	3669450.234	2153681
Germany	7439	137698.830	83838
France	6882	121821.440	75333
EIRE	5423	105427.120	58706
Spain	2039	29796.960	18415
Switzerland	1433	29670.460	17972
Belgium	1657	27794.110	17747
Portugal	1252	20408.770	12039
Norway	768	17980.760	9375
Netherlands	609	14723.900	7094





Description ASSORTED COLOUR BIRD ORNAMENT 1144 13520		0001000
ASSORTED COLOUR BIRD ORNAMENT 1144 13520		
	1144	22848.80
JUMBO BAG RED RETROSPOT 1327 12167	1327	24923.50
WHITE HANGING HEART T-LIGHT HOLDER 1668 10784	1668	31763.76

ARPU ANALYSIS

Average Revenue Per User (ARPU) varies among customers.

Recommendation:

Identify opportunities to increase ARPU through upselling, cross-selling, or value-added services.

Develop targeted marketing campaigns to encourage higher spending among existing customers.

Top ARPU customers

	Total_Order	Sales	arpu
CustomerID			
16716.0	1	166.8	166.80
16319.0	3	404.4	134.80
14434.0	8	964.8	120.60
13147.0	2	237.6	118.80
15269.0	1	118.8	118.80
13261.0	6	670.5	111.75
13763.0	3	308.4	102.80
15619.0	1	99.6	99.60
13188.0	1	99.6	99.60
12882.0	10	995.4	99.54

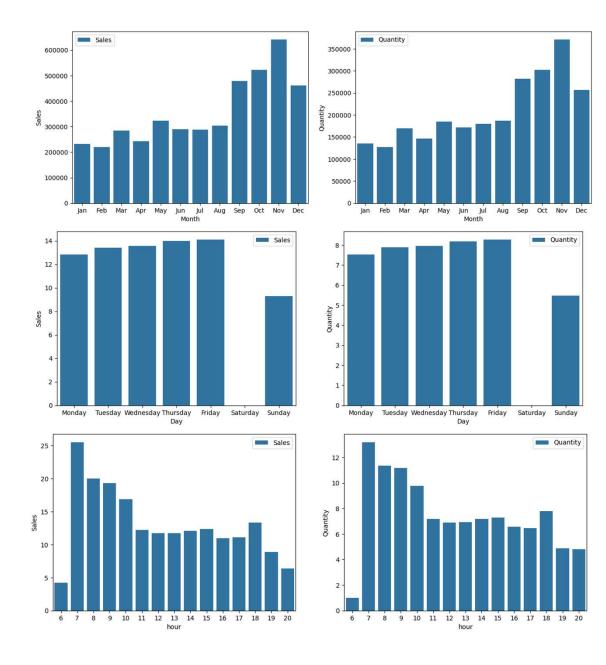
Top Customers and their ARPU

	Total_Order	Sales	arpu
CustomerID			
14911.0	4472	84635.89	18.925736
14096.0	4415	36019.84	8.158514
13089.0	1497	35987.88	24.040000
17841.0	7204	32179.59	4.466906
14298.0	1009	24322.40	24.105451
12748.0	4041	20345.55	5.034781
14156.0	820	18178.61	22.169037
13081.0	849	17925.53	21.113698
15311.0	1912	17712.96	9.264100
14088.0	286	14870.91	51.996189

BEST TIME

- Growth trend observed since August, peaking in November 2011.
- Friday emerges as the peak day for sales.
- Most transactions occur during morning hours, specifically between 7-10 AM.
- Saturday being weekoff it's the best time to do the stocks refilling after a peak day

This analysis reveals the best times for sales, highlighting peak periods by month, day, and hour, aiding in strategic planning and resource allocation for maximizing revenue.



RFM SEGMENTATION ANALYSIS

RFM Level	RFM Score	Count of Customers
Can't Loose Them	>=9	1443
Champions	>=8 to 9	373
Loyal/Committed	>=7 to 8	414
Potential	>=6 to 7	415
Promising	>=5 to 6	415
Requires Attention	>=4 to 5	365
Demands Activation	<4	358

Can't Lose Them:

Offer exclusive loyalty programs or VIP treatment to reinforce their importance.

Provide personalized recommendations and incentives based on their purchase history.

Ensure excellent customer service and support to maintain their satisfaction and loyalty.

Champions:

Acknowledge and reward their loyalty with special discounts, early access to new products, or freebies.

Encourage them to refer friends or family with a referral program.

Collect feedback and suggestions to further enhance their experience.

Demands Activation:

Targeted marketing campaigns to re-engage inactive customers.

Offer special promotions or discounts to incentivize repeat purchases.

Provide educational content or product guides to help them make informed purchasing decisions.

Loyal/Committed:

Maintain regular communication through newsletters or personalized emails.

Offer incentives for repeat purchases or higher order values.

Provide VIP treatment or exclusive access to events to strengthen their loyalty.

Potential:

Targeted promotions or discounts to encourage them to make more purchases.

Provide personalized product recommendations based on their browsing or purchase history.

Offer introductory offers or free trials to entice them to become more active customers.

Promising:

Provide excellent customer service to build trust and confidence in the brand.

Offer incentives or rewards for completing their first purchase or making additional purchases.

Implement targeted marketing campaigns to keep the brand top-of-mind.

Requires Attention:

Reach out with personalized emails or phone calls to address any issues or concerns they may have.

Offer special discounts or promotions to encourage them to make another purchase.

Gather feedback to understand why they may be dissatisfied and take steps to improve their experience.

THANK YOU