UK Online Retail Report

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Steps

How carried for this analysis

Details

Analysis in terms of variables and its conclusion

Steps I

Online retail data from UK
Consists of 3198 rows, 8 Columns

* Source : https://archive.ics.uci.edu/ml/datasets/Online+Retail

1. Refining Data

- Removing Unit Price, Quantity rows which have negative values
- Filtering the "stock codes" that doesn't have unknown product name

2. Planning and Analyzing

- Understanding the characteristic of each variable
- Finding the relation from each columns
- Set the plan with insights how to build a story based on relations of variables

3. Building Strategy with insight

- Setting a strategy based on comprehensive insight

Strategy

Product

Unit Price

Revenue

Customer

Trend

Refining Data

How to raise the revenue of UK Online retail?

Details

How get to conclusion

1. Customer
2. Price
3. Revenue
4. Product
5. Trend
6. Strategy Proposal

Q1 | **Customer** - To how many countries does this UK Retail sell to? Which are they? Is there more than one customer per country? How many customers are there in the UK

- UK Retail has 168 customers from 23 countries including UK market
- The top 12 oversea markets are shown on the diagram
- There are 110 customers in UK market

THE NUMBER OF CUSTOMERS

65% 35%

UNITED KINGDOM	FRANCE	GERMANY	PORTUGAL	SPAIN	BELGIUM	JAPAN	AUSTRALIA	AUSTRIA	EIRE	ITALY	NETHERLANDS	NORWAY	ETC.
110	11	11	4	4	3	3	2	2	2	2	2	2	10
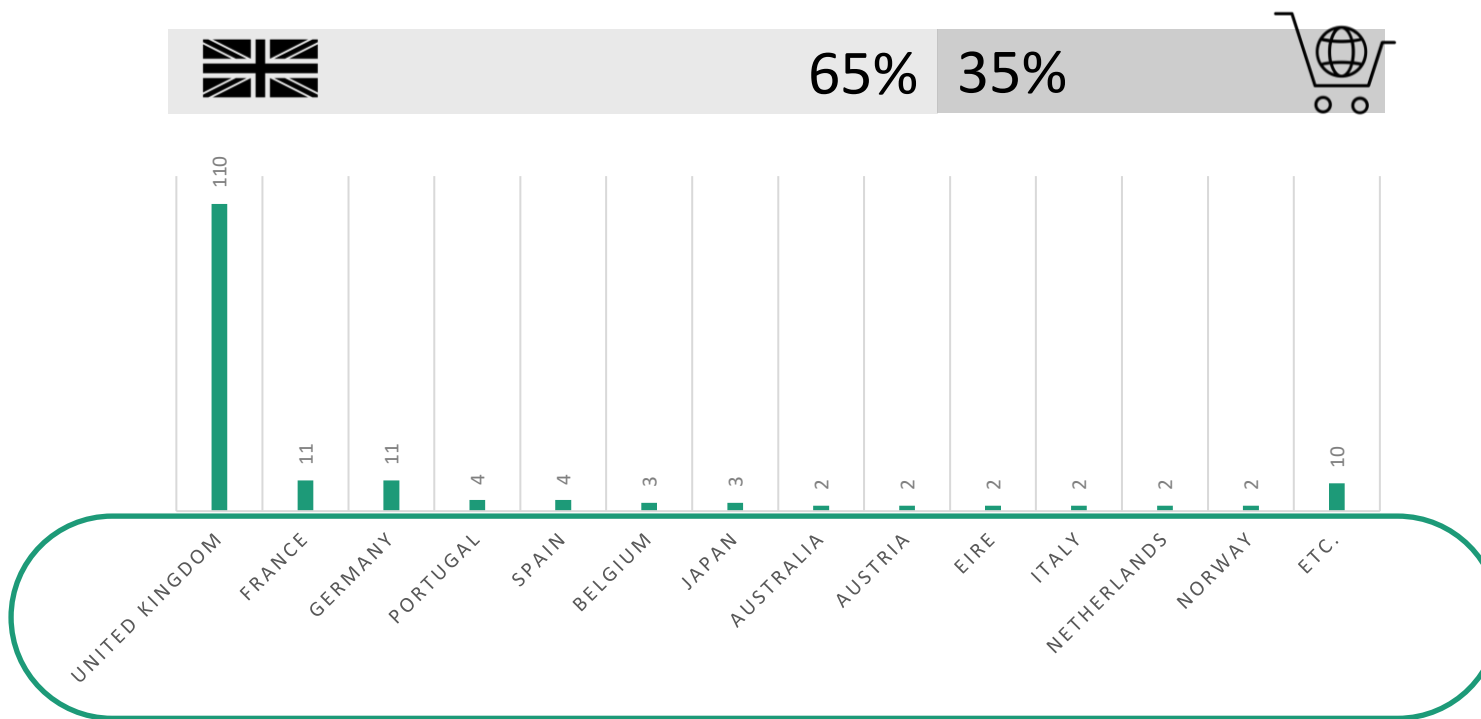
**Q2** | **Price** - Draw a histogram to see the unit price distribution of the products bought in the UK.
What is the unit price distribution? what is the mean? what is the mode?

MAX = 165, MIN =0, Mean= 1.95, Median=1.95, Mode=1.25

Range of Unit Price	Frequency
0-5	1349
5-10	147
10-15	36
15-20	7
20-25	3
25-30	1
30-35	1
35-40	2
40-125	...
125-130	1
160-165	2

Frequency table to Unit Price


Histogram to Unit Price distribution in UK
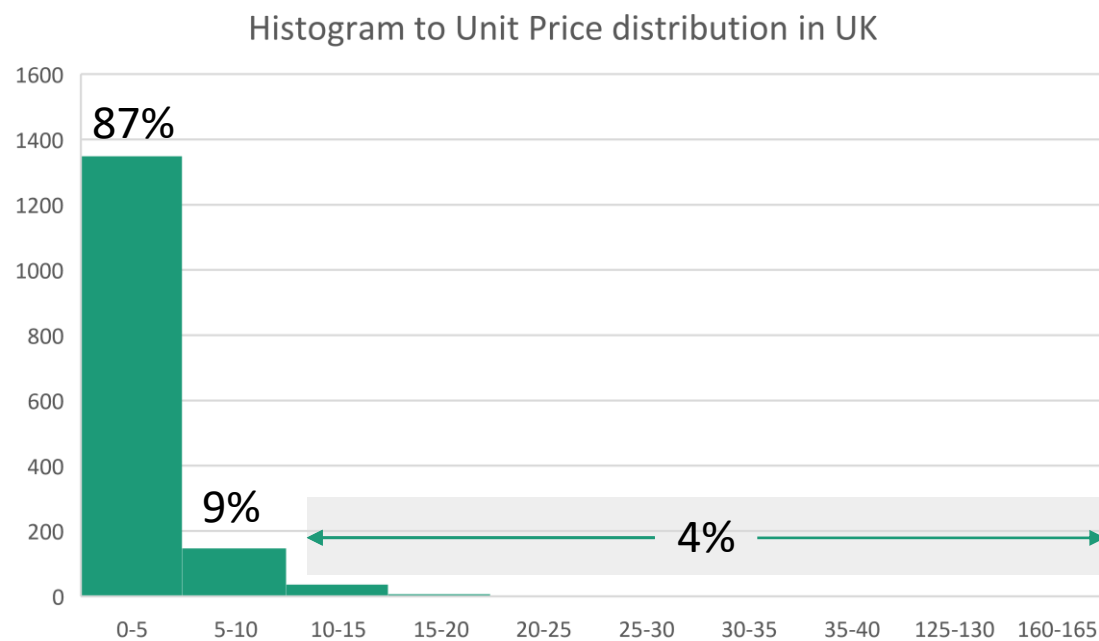
The most demanded price range is 0 to 5 £ as 87% of purchase were in that range. Newly updated line up needs to set this range of prices

Q3

Annual Revenue - What is the annual revenue for this UK Retail? Which customer is the most profitable? Excluding the UK customers, which country is the most profitable?

- Annual Revenue of UK Retail is 109,260
- Customer, #14646, marked the most profitable revenue among 169 customers
- Netherland has shown the most profitable revenue having customer #14646

ANNUAL REVENUE OF TOP 10 COUNTRIES

Total annual revenue : 109,260
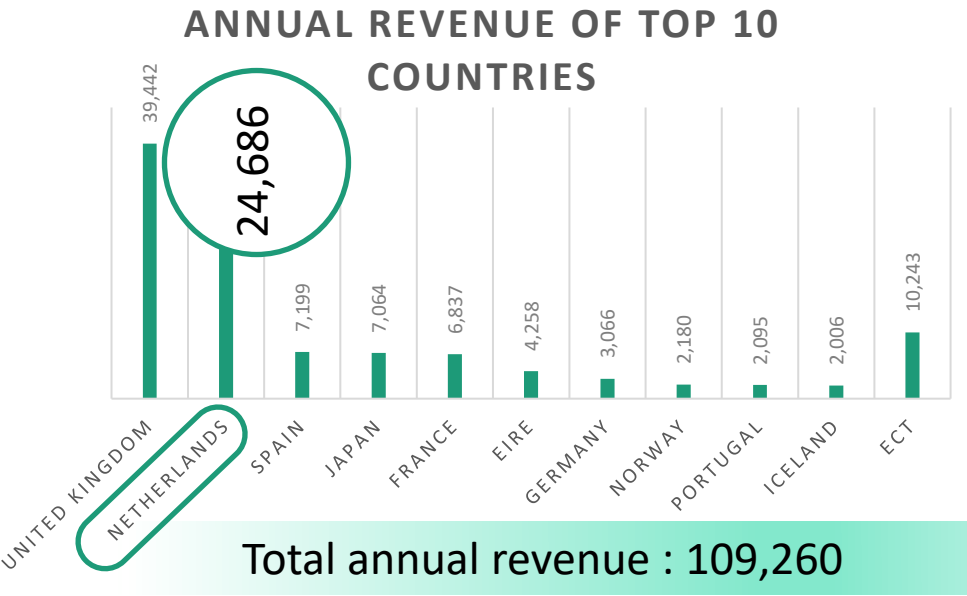
|	CustomerID	Country	Annual Revenue	Compared with total Revenue, %
1	**14646**	**Netherlands**	**24676.86**	**23%**
2	17511	United Kingdom	6399.86	6%
3	14737	United Kingdom	4512.26	4%
4	14911	EIRE	4265.64	4%
5	12755	Japan	3794.4	3%
6	16029	United Kingdom	3702.12	3%
7	12557	Spain	3610	3%
8	12754	Japan	2949.12	3%
9	12597	Spain	2169.49	2%
10	17450	United Kingdom	2039.24	2%
...	158 customers	Etc	491135	45%

[The most profitable customer top 10]

23% of annual revenue is concentrated to customer #14646. Considering potentiality of the market, promotion to NL can be enhanced to increase the number of cutomers in NL.

Q4

Products - What products does this online store sell? which one sells the most?
What are the top six? Which one sells the least?

- UK Online Retails deals with stationary and interior products
- The most sold product is "ROUND SNACK BOXES SET OF 4 FRUITS", code, #22328, being sold 1644 pcs
- The most sold top 6 products are on the diagram
- The fewest sold product is "RETRO PLASTIC DAISY TRAY" sold #79190D, being sold 1 pcs

The most sold top 6 products
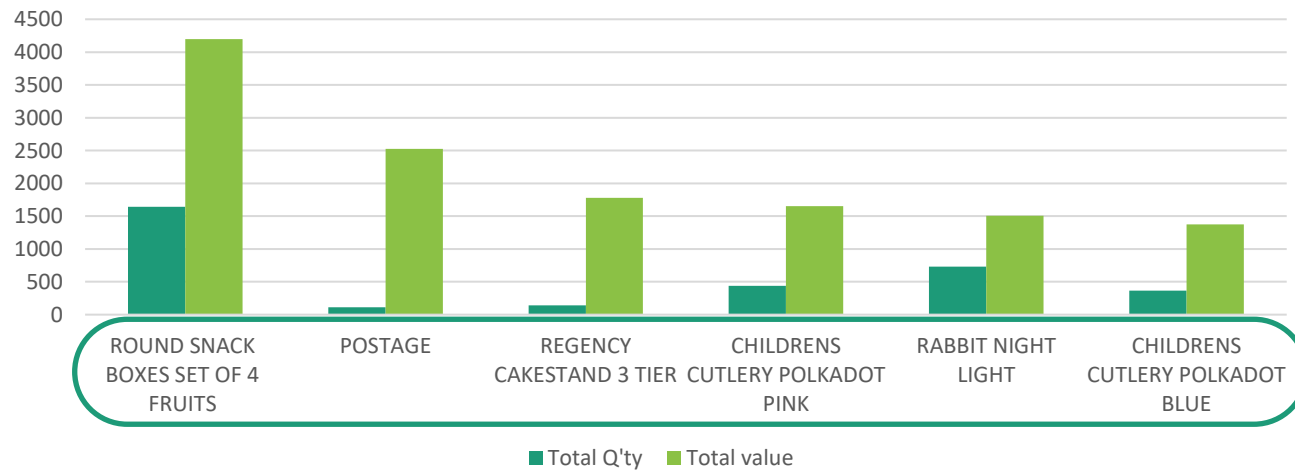
The most sold product

The fewest sold product

- 4 of Top 6 products are mostly for children such as Snack Boxes or Rabbit night light. It is recommended to increase line up for children
- Interior items shows high profit with low quantity and high values. It is recommended to expand the line up for interior items

Extra Analysis - What else can you infer from this data?

Considering the relation on each variables, company can target 5 countries
which have a high potentiality to increase revenue in short time

Comparison between the number of customers and Total Value

The number of customers · Total Value
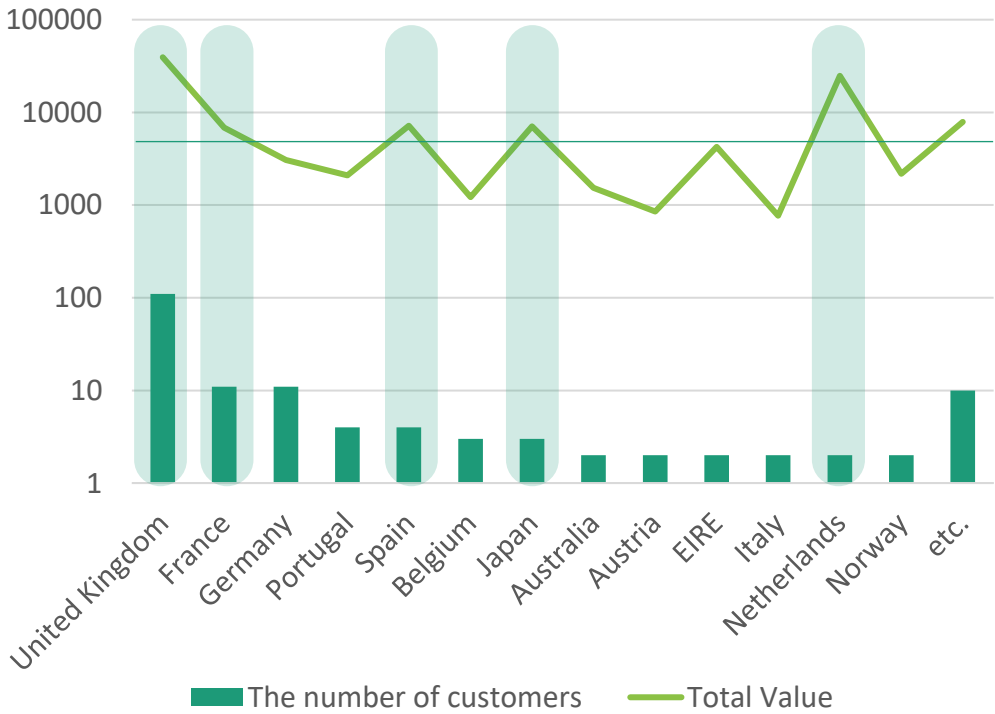
| The number of customers	Country of a customer	Total Value
110	United Kingdom	39,442
11	France	6,837
11	Germany	3,066
4	Portugal	2,095
4	Spain	7,199
3	Belgium	1,218
3	Japan	7,064
2	Australia	1,532
2	Austria	849
2	EIRE	4,258
2	Italy	771
2	Netherlands	24,869
2	Norway	2,180
10	etc.	7,879

Max=39,442
Min=58
AVG=4,750

[Countries where total value is higher than average in 10 countries]

Q5 | **Trend** - What else can you infer from this data? (cont'd)

- 62% of yearly revenue goes on in second-half year
- Especially revenue on 4Q is up to 36%. Seasonal product for children could be added in lineup, meeting preferred price range.

QUARTERLY REVENUE

1Q 18%
2Q 20%
3Q 26%
4Q 36%

Revenue Trend

Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
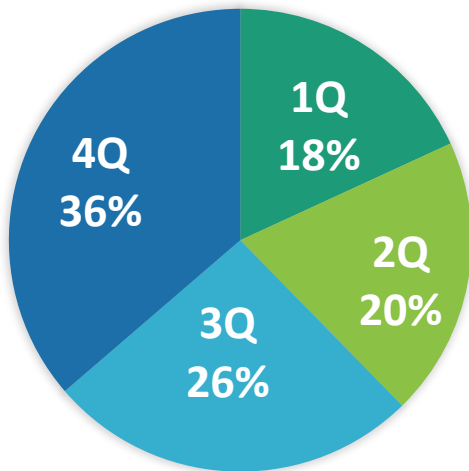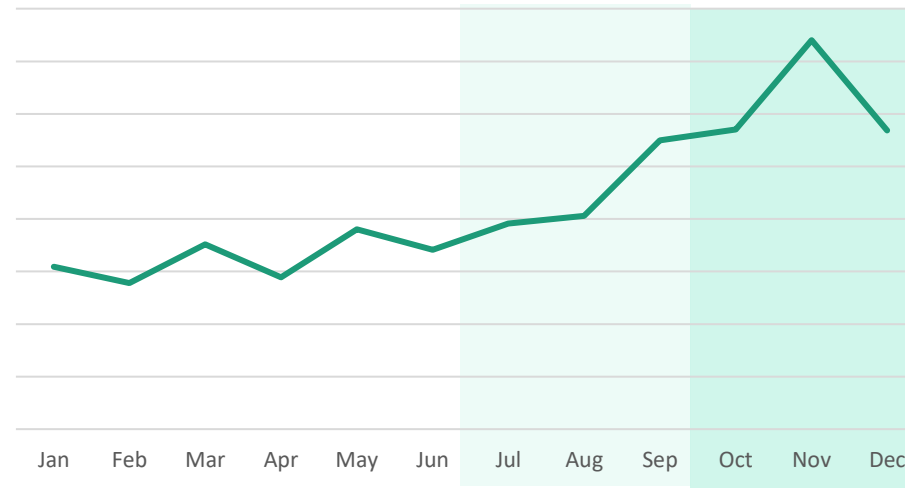
Q6 Strategy Proposal - What did you learn about this company?
What strategies can you recommend for the coming year?

About UK Online Retail

UK Online Retails deals with stationary or interior items to 168 countries. Even though it is international company, major revenue comes from UK as 36% of total revenue are from UK.
As business stays in domestic market, it is highly recommended to diversify the channels, targeting non-UK markets.

Customer

36% of revenue is from UK with 110 customers. Among them, top 10 customer from 5 countries covers 53% of revenue. Local promotion for top 5 countries are required.

Price **Product**

Products Under 5 £ which targets for children are the most sold internationally. 36% of revenue was generated in 4th quarter. Price and line up are frequently updated following seasonal event
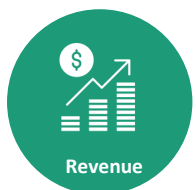
Revenue

36% of revenue is from UK and 23% is from Netherland. Top 5 Countries covers 78% of revenue. In order to spread risk, company needs to strength the lineup for oversea market such NL, FR, ES or JP. To increase the revenue in short time, update the new product for domestic market, UK.