Global Food Distribution (Power BI dashboard) – Report

Analysis of sales data for global food distribution company with presence in US, Europe and Japan - completed as a lab exercise with General Assembly. Used Power BI to derive insights to client's products sales and marketing in these countries. Identified: top selling products, trends in sales for these products, customers generating highest sales. Comparison was made of sales in US vs Europe. Recommendations made to maximise portfolio profitability to US and Europe, and recommendations made for exploring untapped markets in Europe.

1. For both the U.S. and for Europe, in 2014 YTD (year to date), what is the top-selling product group in each region?

Top selling product groups 2014:
- US: Canned products
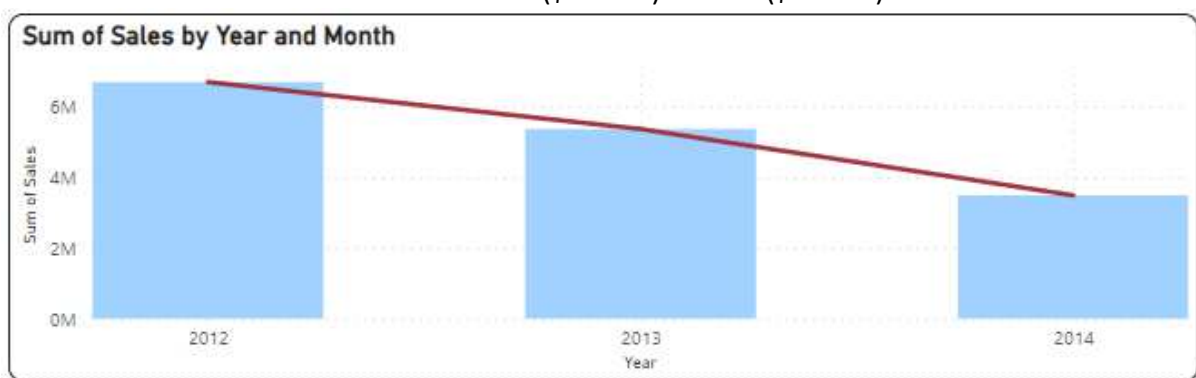- Europe (Germany, Nordic, Spain, UK): Produce

2. What are the sales trends for this top product group for the U.S. and Europe from 2012 through 2014?

For Canned Products in US:
Sales fluctuated from month to month, with significant peaks in Feb 2012 ($0.896M), Aug 2012 ($1.21M), Feb 2013 ($0.859M), Sep 2013 ($0.623M) Jan 2014 ($0.849M).

Overall trend: decrease in net sales 2012 ($6.69M) - 2014 ($3.49M)
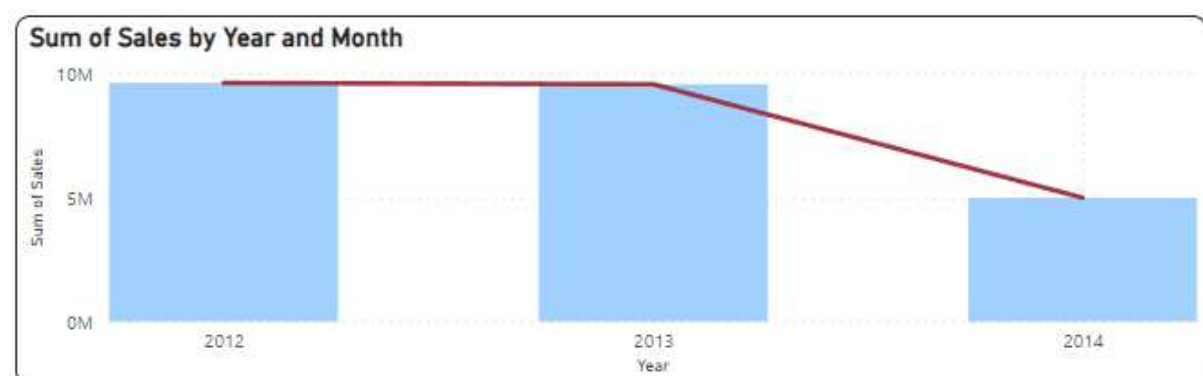
For Produce in Europe:

Sales fluctuated wildly from month to month from a minimum of $0.261M in Jul 2012, to a maximum of $1.27M in Jan 2014

Overall trend: sales were down by almost half in 2014 (sum of sales: $4.98 M) compared to 2012 ($9.61 M), 2013 ($9.56M):


3. Are there any trends in sales between the two regions? Is there any seasonality?

Both regions experienced a downturn in sales in 2014. For Canned Products/ US there was a progressive downturn from 2012 – 2014. For Produce/ Europe sales were stable during 2012 – 2013 with a sharp drop in 2014.
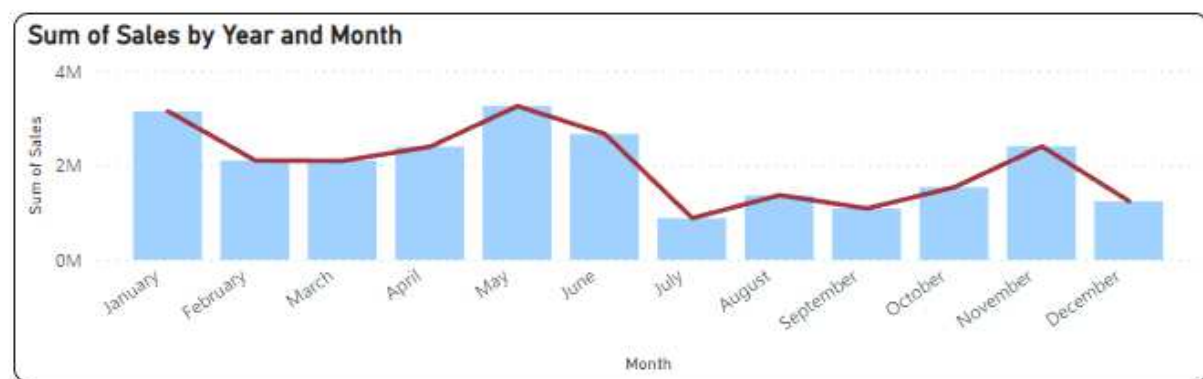
Seasonality:

Canned Products/ US:

Sales peaked dramatically in March (spring) but were comparatively low at other times of the year.

Sum of Sales by Year and Month
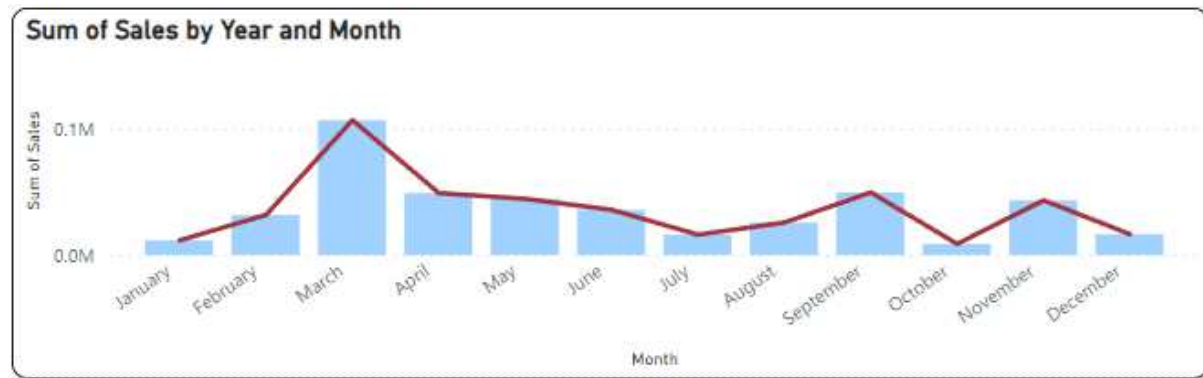
Produce/ Europe:

European summer is June to mid-Sep. Sales fell during this period reaching a low in Jul. There was a peak in sales at the beginning of the year, in May and in Nov.

Sum of Sales by Year and Month

Overall, it appears that sales peak at the end of Q2 and Q4.

Product Details
4. Compare the sales and margins of the following product groups over the years 2012, 2013, and 2014 YTD:
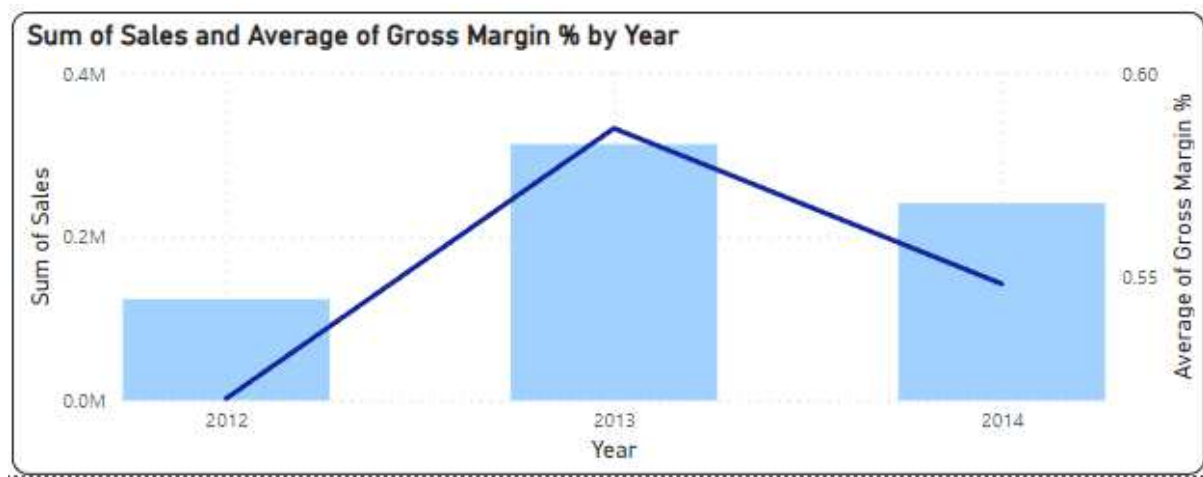**a. Breakfast Foods**
b. Meat
c. Snacks

Breakfast Foods:
Sales were comparatively low in 2012 ($0.124M), peaked in 2013 ($0.313M) and decreased slightly in 2014 ($0.241M).

Average gross margin % followed a similar pattern: 2012 (0.52), 2013 (0.59), 2014 (0.55).

Sum of Sales and Average of Gross Margin % by Year

Meat:

Meat sales trended steadily downward 2012 ($40,006) – 2014 ($5818).
Average gross margin% : 2012 (0.43), peaking in 2013 (0.55), and falling in 2014 (0.44).

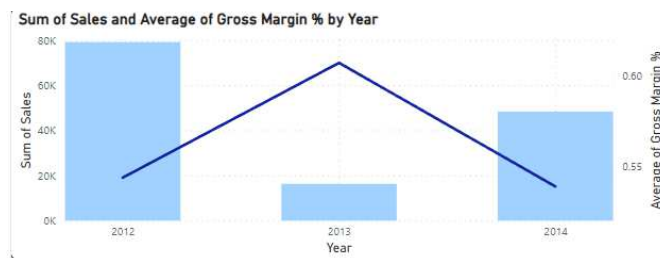Sum of Sales and Average of Gross Margin % by Year
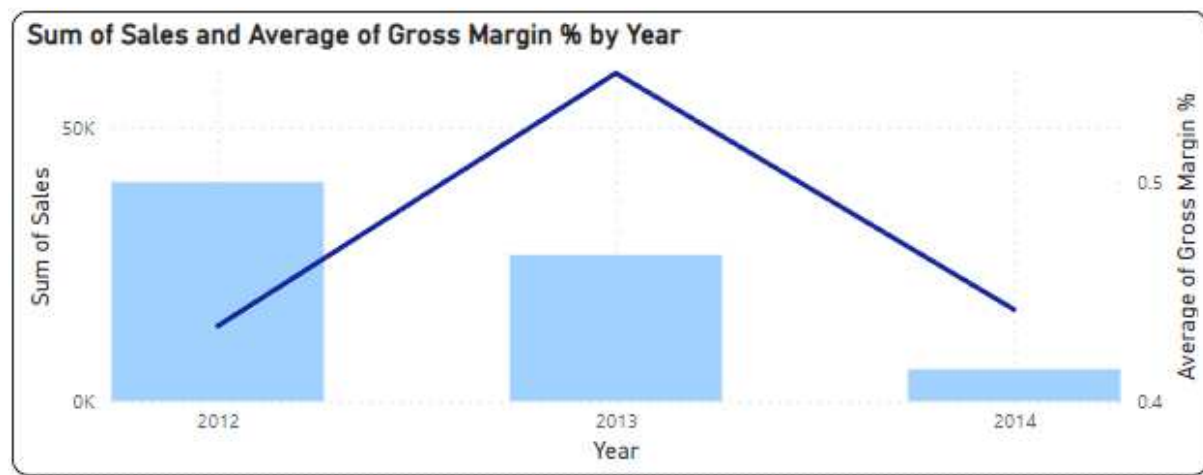
Snacks:
Sales: 2012 ($3.01M), peaking in 2013 ($3.74M) and falling in 2014 ($1.88M).
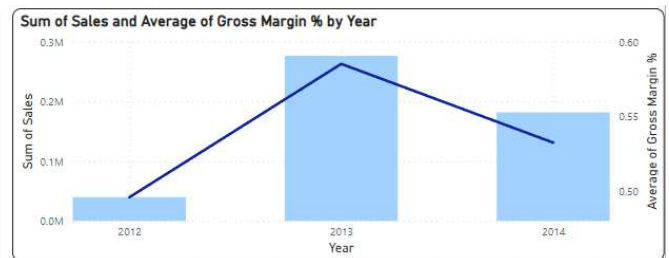Average gross margin% : similar pattern. Low in 2012 (0.45), peaking in 2013 (0.51), falling in 2014 (0.49).
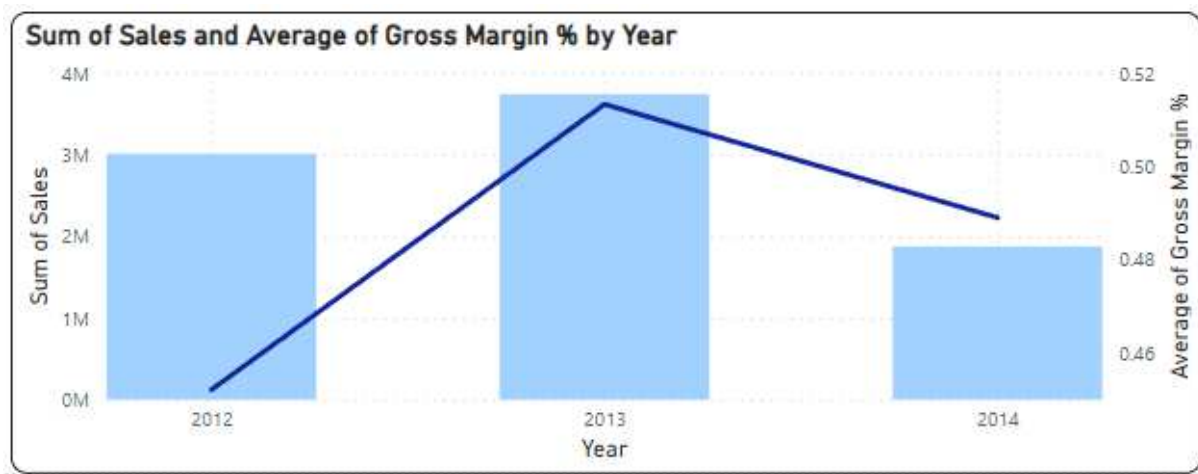
5. How do the trends differ when you look at them separately for the U.S. and European regions?

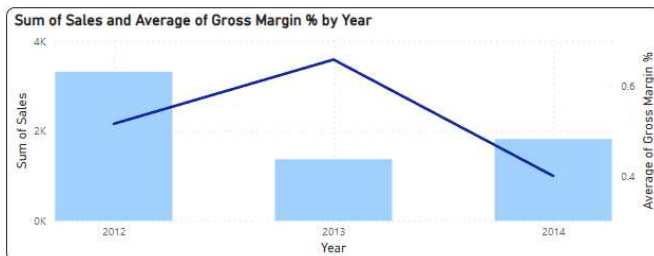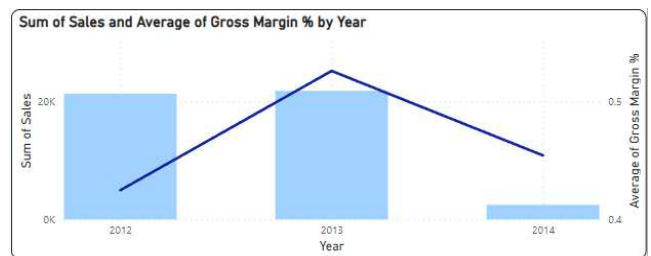**Breakfast foods – USA vs Europe**

USA

Europe

Pattern of average gross margin was similar between the regions, but sales trend was inverted. USA experienced a trough in sales in 2013, while Europe sales peaked.
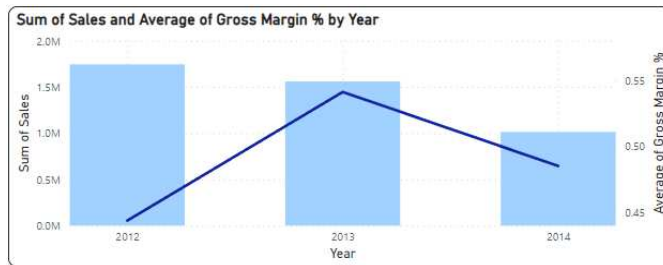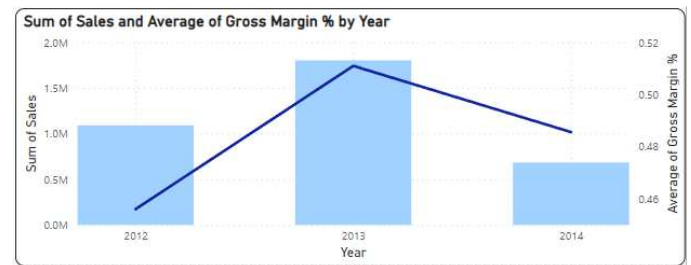
Meats

USA

Europe

Similar trend in average gross margin % between regions. Sales again showed an inverse pattern across the regions: reaching a trough in US in 2013, while peaking in Europe.

Snacks

USA

Europe

Average gross margin % trend - similar to the other product categories. Sale in US decreased steadily while sales in Europe peaked in 2013.

6. Based on these changes, is there a unified strategy we might recommend to maximize portfolio profitability to the U.S. and Europe?

There was an overall downturn in sales across all product categories 2013-2014. However, sales for breakfast foods and meat in the US appeared to be recovering during this period. Potentially, we advertise these two product categories with a focus to further push sales in the USA.

Customer Details

7. Which manager's customers produce the highest average sales per invoice?

Top 8 Managers by Av Sales per Invoice:

Manager	Av Sales per Invoice
Dennis Johnson	5,316.78
Stewart Wind	2,795.44
Carolyn Halmon	2,438.50
Micheal Williams	2,209.30
Kathy Clinton	1,477.06
John Greg	1,405.08
David Laychak	1,002.83
Brenda Gibson	907.43
Total	**1,086.94**

8. Who are the customers that are generating both the highest volume and highest value sales?

Sales Volume vs Sum of Sales by Customer

Customers by volume and sales:
High sales – Paracel, Deak Perera Group
High volume and high sales – PageWave, Talarian
Moderate volume and sales – Userland, Target, Acer

9. How do the margins on these customers' sales compare to other accounts?
Overall gross margin % (across all customers/ products):

0.51
Average of Gross Margin %

Comparing gross margin %:
High volume customers:
Paracel: 0.46
Deak Perera Group: 0.45

High volume high sales customers:
PageWave: 0.33
Talarian: 0.40

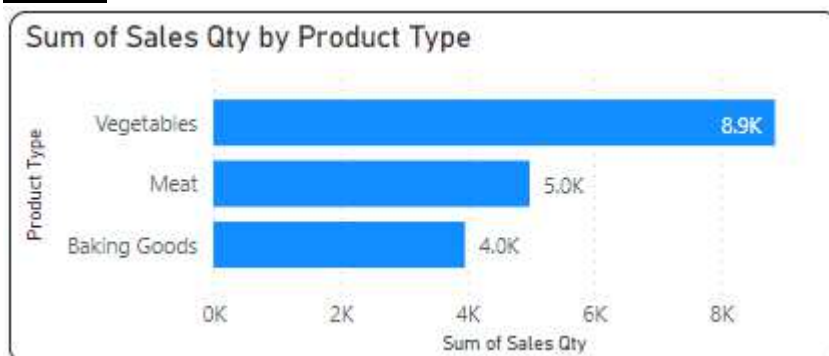*Moderate volume and sales customers:*
Userland: 0.30
Target: 0.49
Acer: 0.38

Gross margin % for all of these customers was below the average. Target had the highest gross margin % . The high volume high sales customers had the lowest gross margin % on average.
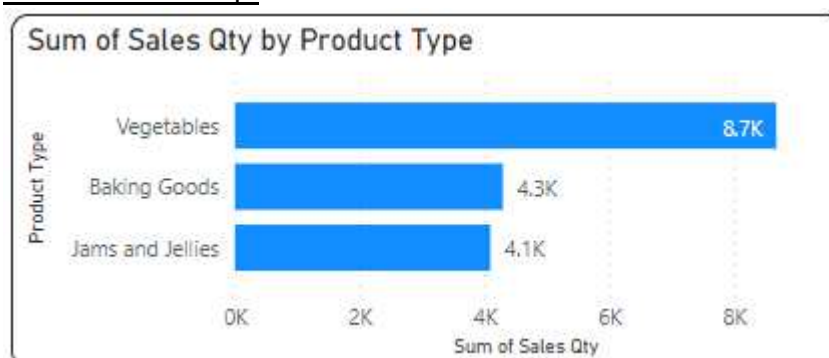
10. What are the most frequent product types bought by these customers?
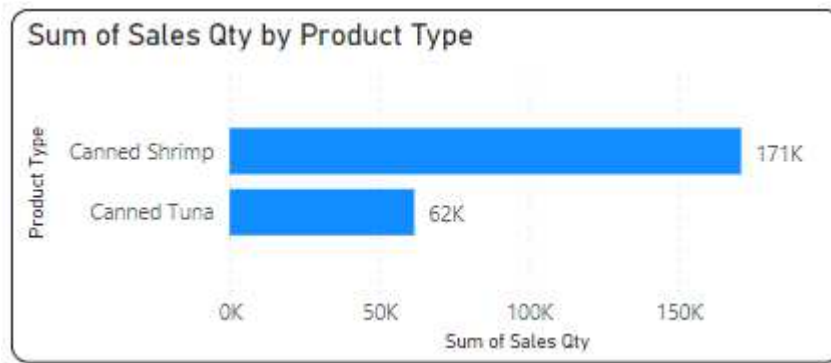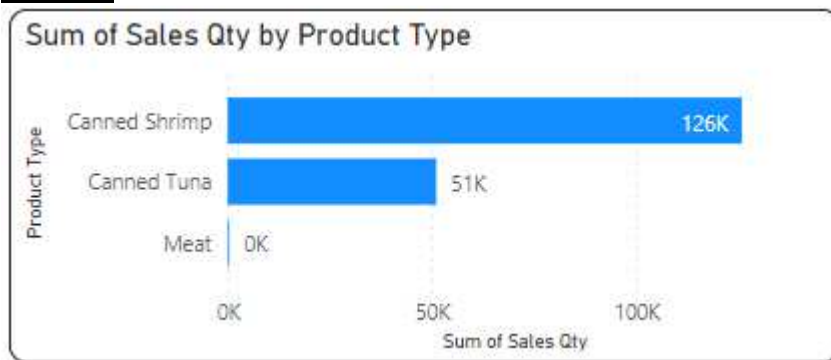**Top 3 product types by company (where applicable):**
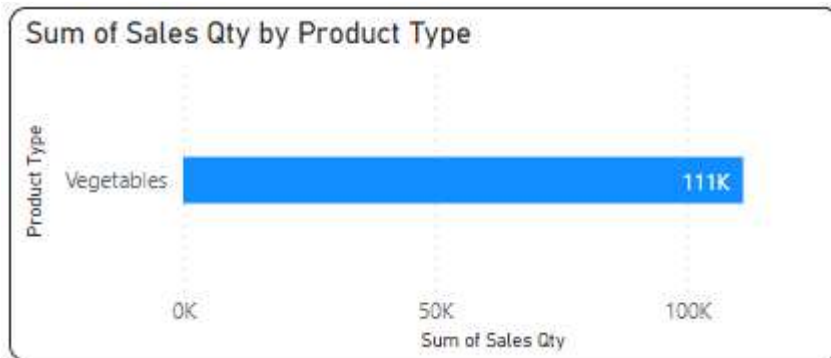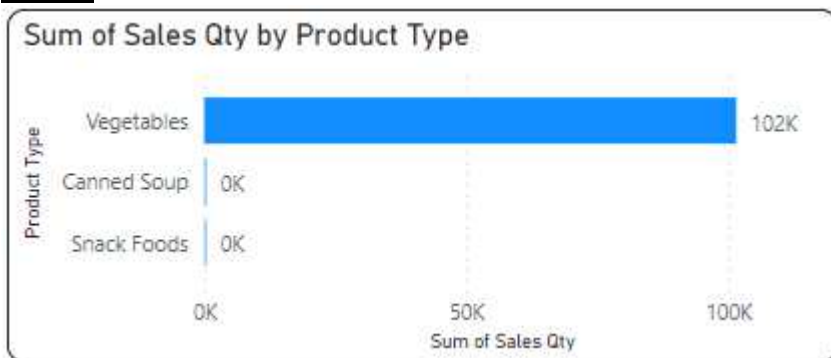Paracel:

Deak Parera Group:

PageWave:

Sum of Sales Qty by Product Type

Product Type	Sum of Sales Qty
Canned Shrimp	171K
Canned Tuna	62K

Talarian:

Sum of Sales Qty by Product Type

Product Type	Sum of Sales Qty
Canned Shrimp	126K
Canned Tuna	51K
Meat	0K

Userland:

Sum of Sales Qty by Product Type

Product Type	Sum of Sales Qty
Vegetables	111K

Target:

Sum of Sales Qty by Product Type

Product Type	Sum of Sales Qty
Vegetables	102K
Canned Soup	0K
Snack Foods	0K

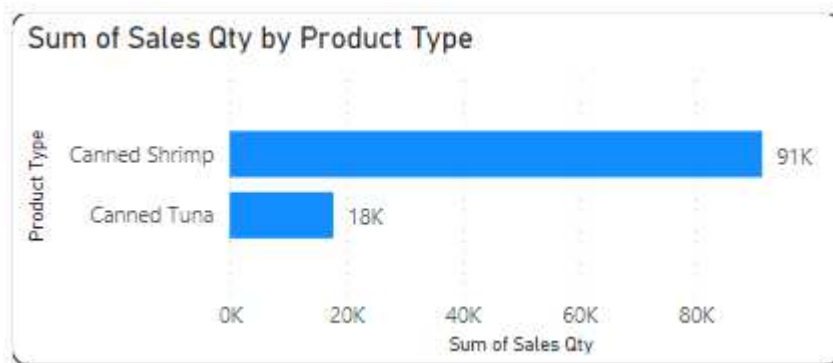## Customer Location

11. Are there European cities that appear to be dominating sales of the canned goods and snacks product groups?

UK cities are dominating total sales of canned goods and snacks:

- Leicester: $0.610M
- Cardiff: $0.585M
- Birmingham: $0.482M
- Dudley: $0.456M

12. What countries could we focus on to help increase our presence in Europe?

There is already a significant market presence in UK – encouraging further growth in this region is recommended. There are also moderate sales occurring in Spain and Germany which would be responsive to marketing.   France is a potentially large untapped market bordered by 3 countries in which we have a market presence (UK, Spain, Germany).