



TATA iQ

Data Visualisation: Empowering Business with Effective Insights

REVENUE AND EXPANSION INSIGHTS

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AGENDA

- Introduction
- Data Processing
- Exploratory Analysis
- Recommendations

INTRODUCTION

- Tata Group is a global conglomerate which operates in more than 100 countries across six continents, with a mission 'To improve the quality of life of the communities we serve globally, through long-term stakeholder value creation based on Leadership with Trust'. With a revenue of \$128 billion (INR 9.6 trillion) in 2021-22, the companies collectively employ over 935,000 people. There are 29 publicly listed Tata enterprises – many being market leaders in their industries.
- An online retail store has hired you as a consultant to review their data and provide insights that would be valuable to the CEO and CMO of the business. The business has been performing well and the management wants to analyse what the major contributing factors are to the revenue so they can strategically plan for next year.
- The leadership is interested in viewing the metrics from both an operations and marketing perspective. Management also intends to expand the business and is interested in seeking guidance into areas that are performing well so they can keep a clear focus on what's working.

Data Processing

- The data was inspected using Power Query. Duplicate records were removed
- We removed values from the quantity column that shows negative values and prices that are below \$0.
- We noticed that few Stock Codes are named differently from majority of the codes. We kept them as they had important information.
- Few records had missing customer id but transaction details were there. We kept them assuming they are adding important information to the overall performance.
- Further discussion with the team needs to be done in order to handle missing customer id and different stock codes.
- The cleaned dataset has 519592 records.
- Dataset contains Customer id, Invoice id, Invoice date, Stock code, Description , Unit Price, Quantity and Country columns.

Exploratory Analysis : Primary Insights

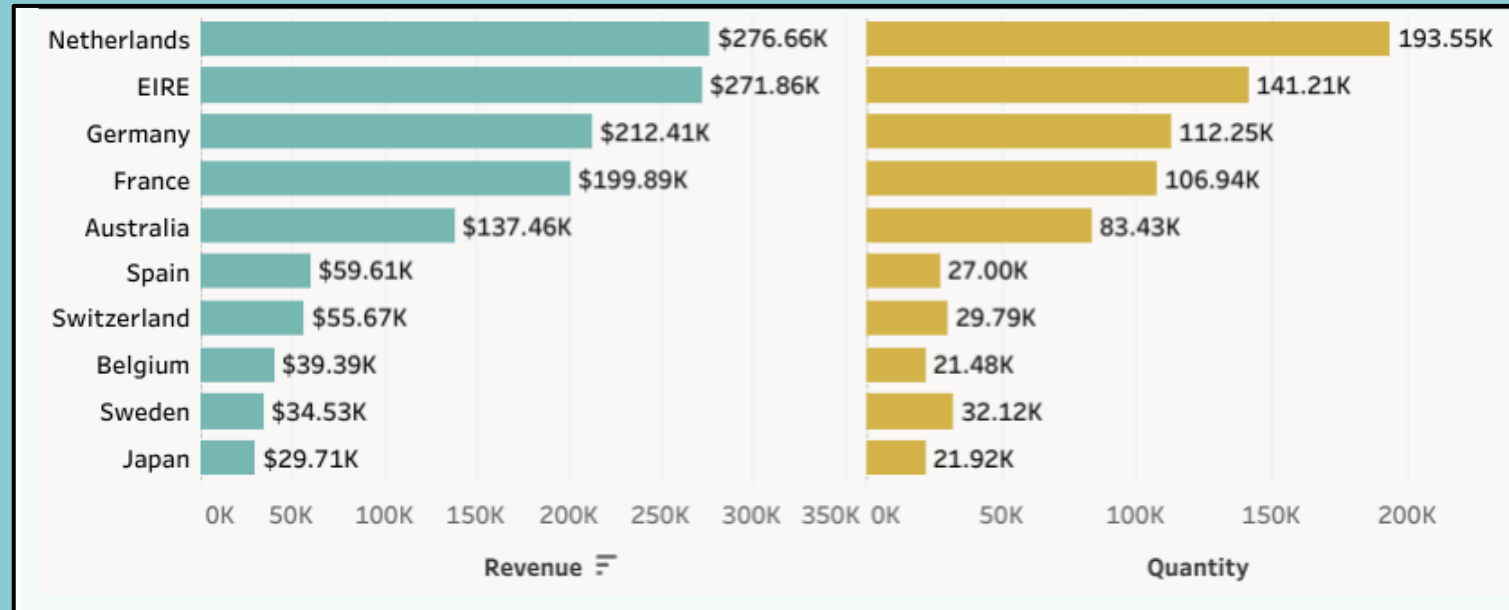
1. The CEO of the retail store is interested to view the time series of the revenue data for the year 2011 only. He would like to view granular data by looking into revenue for each month. The CEO is interested in viewing the seasonal trends and wants to dig deeper into why these trends occur. This analysis will be helpful for the CEO to forecast for the next year.



- Overall Trend is positive as we enter second half of the year.
- September to November saw a good jump in revenue which peaked in November at \$1.51M.
- December drop needs to be investigated, festive reasons?

Exploratory Analysis : Primary Insights

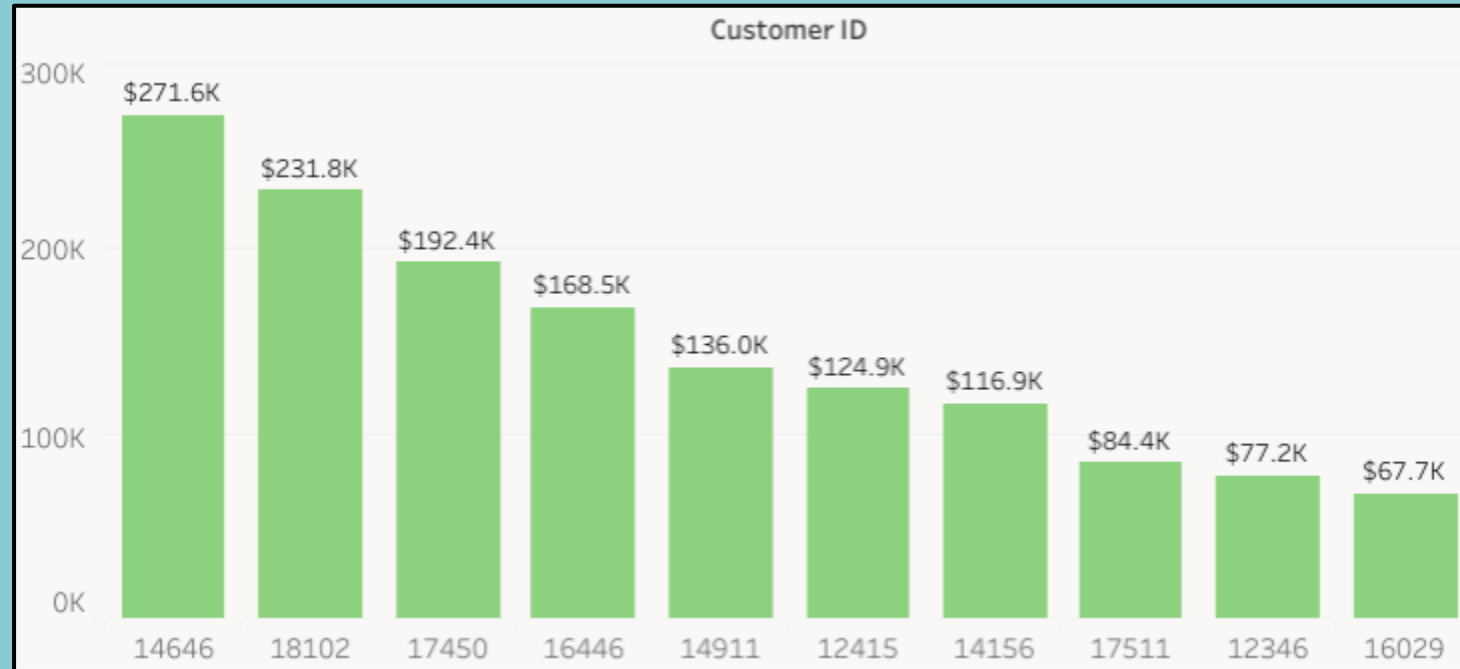
2. The CMO is interested in viewing the top 10 countries which are generating the highest revenue. Additionally, the CMO is also interested in viewing the quantity sold along with the revenue generated. The CMO does not want to have the United Kingdom in this visual.



- Netherlands and EIRE (Ireland) are top two in terms of revenue generation as well as quantity sold.
- Both of them have similar revenue generation but there is a difference in quantity sold indicating that maybe cheaper products are in demand in Netherlands.

Exploratory Analysis : Primary Insights

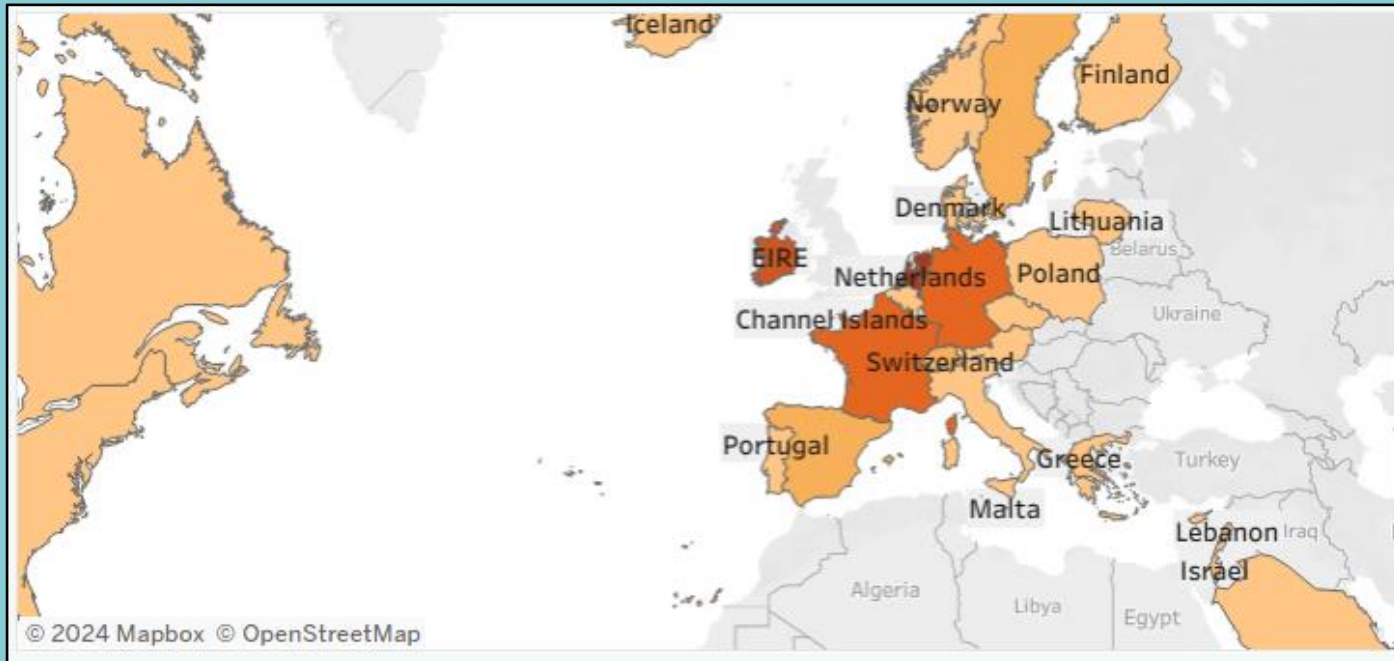
3. The CMO of the online retail store wants to view the information on the top 10 customers by revenue. He is interested in a visual that shows the greatest revenue generating customer at the start and gradually declines to the lower revenue generating customers. The CMO wants to target the higher revenue generating customers and ensure that they remain satisfied with their products.



- Customer 14646 generated the highest revenue of \$280.2K followed by customer 18102 (\$259.7k)

Exploratory Analysis : Primary Insights

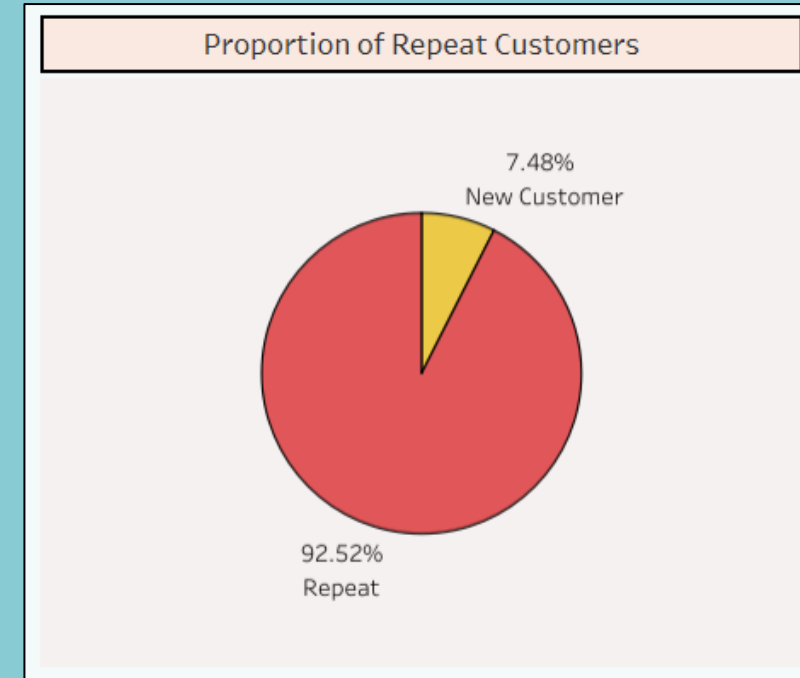
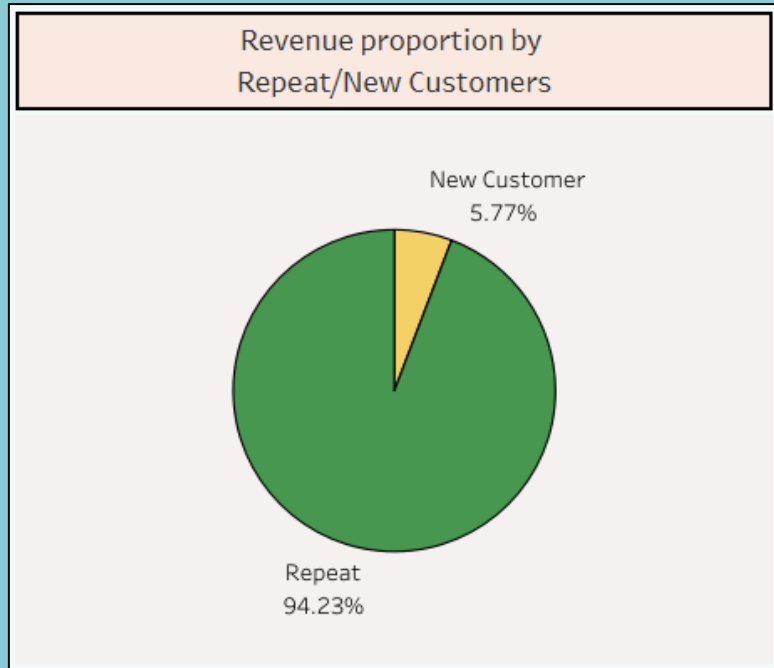
3. The CEO is looking to gain insights on the demand for their products. He wants to look at all countries and see which regions have the greatest demand for their products. Once the CEO gets an idea of the regions that have high demand, he will initiate an expansion strategy which will allow the company to target these areas and generate more business from these regions. He wants to view the entire data on a single view without the need to scroll or hover over the data points to identify the demand. There is no need to show data for the United Kingdom as the CEO is more interested in viewing the countries that have expansion opportunities



- Netherlands is the country that has the highest revenue which makes it the best country for a business expansion.
- The surrounding areas around Ireland seems promising for the popularity of the business.
- Countries like Ireland, Germany and France has a significant customer base that can also be looked at for opportunities.

Exploratory Analysis : Secondary Insights

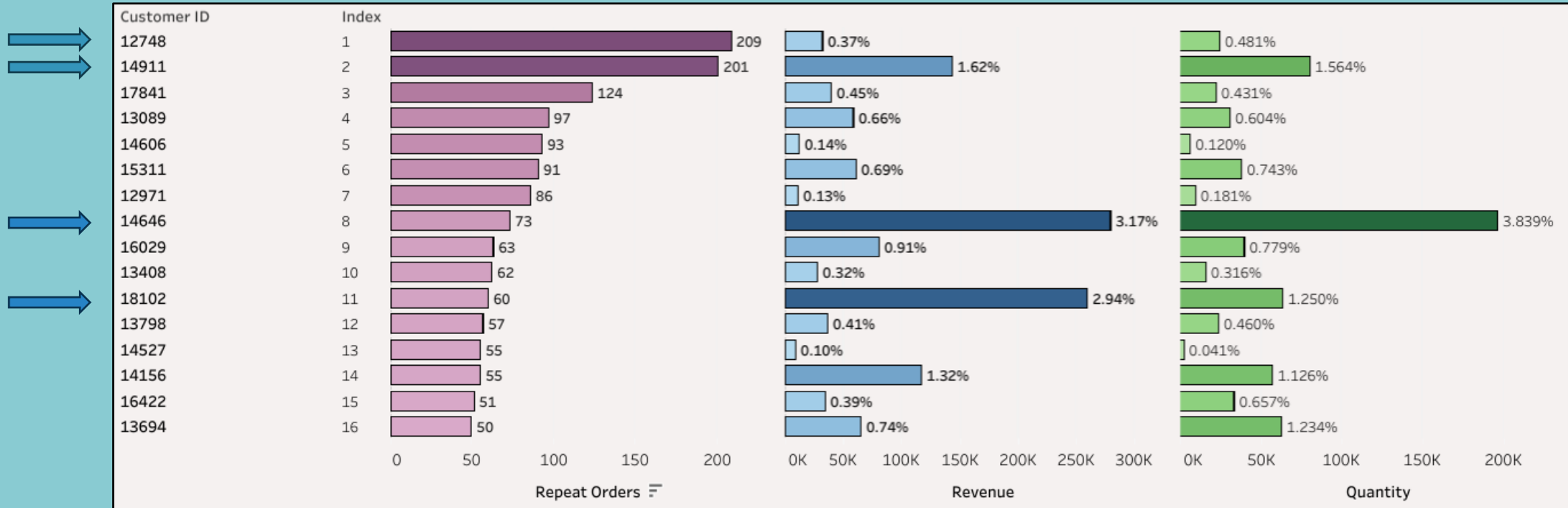
1. What is the proportion of repeating customers and how much do they contribute to the overall revenue?



- As can be seen, majority 92.52% of the customers are repeat customers indicating a good customer retention.
- They contribute to the 94% of the total revenue

Exploratory Analysis : Secondary Insights

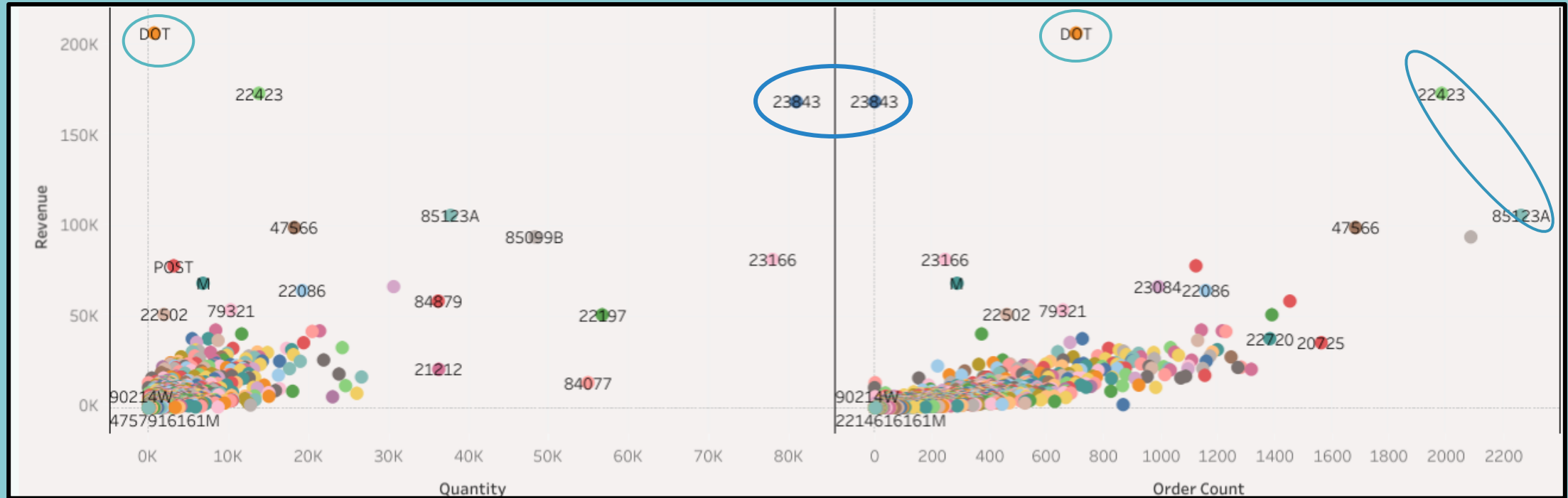
2. Top repeating customers and their contribution to revenue and quantity sold.



- Customer 12748 is the most frequent customer but his revenue and quantity contribution is decent. Frequent visits but purchases cheap and low quantity products.
- On the other hand, Customer 14911 has second highest order count but considerably good revenue and quantity sold contribution. Frequent visits, good amount of above average priced purchases.
- Customer 14646 has very high revenue contribution as well as high purchase quantity.
- Customer 18102 too has very good revenue contribution and purchase quantity.

Exploratory Analysis : Secondary Insights

3. Product performance with respect to Revenue, Quantity and Order Count.



- Product **23843** is one of the highest contributors to the revenue having sold the highest quantity as well but it was ordered only once. Indicating bulk orders.
- Majority products lie in the lower half of the quadrant indicating decent demand and decent revenue contribution.
- **DOT** product is highest revenue generating product having quantity in lower side and a decent order count.
- Product **22423** and **85123A** has good revenue contribution and high order count indicating popular product adding higher value to the revenue

Recommendations

- From the revenue trend for the year 2011, the second half of the year witnesses growth peaking in November. The reasons could be festivals, winter shopping, etc. Accordingly, Marketing and Promotional offers could be revised. **Summer schemes** for first half of the year to increase revenue can be exercised.
- Since Netherlands and Ireland are major revenue generators, customer satisfaction in such areas must be maintained. The CMO can plan marketing strategies to expand the business accordingly. Figuring out the most sold products in these countries, appropriate offers like **BOGO** can be made.
- Top customers in terms of revenue generation and customer retention must be given additional benefits depending on their purchase behaviour. For example, **Extra Store credits? Coupons? Personalized deals?**
- **Maintaining good relations** with the customers who bought products in huge amounts would be very important since they would contribute a lot to the revenue. For example, providing discounts for customers purchasing in bulk.
- Stocking up in demand products is a must.
- Products contributing very less to the revenue and quantity being sold should be discarded if they are a burden on the inventory or COGS.
- The CMO can decide to bring a **celebrity on board** to promote their less popular and potentially high margin product in countries where the revenue generation is high. OR **bundle** popular products with less known ones.