TheLOOK

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TheLOOK Superstore

TheLooK E-COMMERECE BUSINESS

Executive Summary

TheLook is a fictitious eCommerce clothing site. The business requires a comprehensive analysis about the progress of their activity. The General Manager of the company is presenting these insights to the next senior management meeting.

Data Storytelling Design Checklist

I am about to complete the Data Analytics course and I would like to apply the knowledge and skills that I learned in the course into this project as a newly hired Data Analyst at an e-commerce company, named "TheLook". In particular, they require a study about the progress of sales, inventory and products. I will be submitting my findings to the General Manager of the company.

The project's final output should provide insights about the following topics:
• Website activity: the events table contains session-level data about the user's online behaviour.
• Demographic composition: the users table includes customer information.
• Product performance: the product table describes the product catalogue as well as costs and retail prices of each element, but it's in the order-item table that you will be able to see how many times a certain product was sold.
• Inventory status: the inventory_items sheet shows stock availability and the distribution_centres table shows where each distribution centre is located.
• Other insights: don't forget about the orders table, which provides order-level information on your customer's transactions.

What?

The company data is stored in the BigQuery database: bigquery-public-data.thelook_ecommerce. The dataset contains information about customers, products, orders, logistics, web events and digital marketing campaigns. My task is to query and extract the data, perform any cleaning if necessary, manipulate it, analyse it and create a compelling presentation of my results in Tableau which I will deliver to the General Manager of the company.

How?

Finally, as explained above, I will use the insights gained from the analysis above to create a multi-frame data story with Tableau using Story Points for the final presentation as well as printed summary, which will explain the context, the insights found, their interpretation and any recommendations / next steps, explaining how they can be leveraged to improve the future of the business. If I find enough time and motivation, I will try to implement one or more predictive analysis as well.

Who?

Persona :

Paul (TheLook General Manager)
Role: Active Senior Member of Super Store Corporation
Age: 52 Gender: Male Education: MBA

Can you get me a comprehensive analysis of the business by next quarterly meeting?

Paul spends most of his time at work requesting and reviewing various business reports and briefs for other seniors and board members and supervising distribution centres' managers efforts in managing their centres. Paul needs to turn the many findings by the data analyst into an overall business strategy he can sell to the seniors and board members.

Goals:

• Wants quick clear and credible business updates
• Wishes to segment customers and products on revenue and profitability
• Wishes to end ineffectiveness of inventory policy
• Prefers data-driven decision making
• Has colour blindness deficiency particularly red and green ones

Challenges and Needs:

Paul has heard anecdotal reports of the company where overall business policy not being effective. He is therefore interested in

TheLOOK Superstore

Website Interaction: Chrome is the most popular browser, used by almost 50% of potential customers while product, cart and department are the widely visited part of the website. More than two third of the traffics is generated by email and adwords while search is the most popular means of generating traffics. More than 8 cities have over 20k distinct users; 4 of those cities are in China.

Customers Analysis: Top 3 customers are based in China, USA and Brasil, where demographic of male and female are almost equal in these counties. The numbers of all traffic sources seem to be highest during March and search engine seems the most popular among customers globally followed by organic search. 8 customers are classified as VVIP, contributing more that £22K profit each. The top 3 profitable age groups are 20-30 years old followed by 50-60 years and 10-20 years old age groups.

Order Analysis 1: All cities are classified into three categories; namely highly, middle and low performing on the basis of sales and profit by each customer. Product category can be analyzed with revenue and profit in the scatter plot.

Order Analysis 2: Revenue and profit are analyzed by country, traffic sources and product categories throughout year 2019 to 2022 (March). No seasonality is found in revenue and profit trends by months. Search in traffic sources and intimates category were high performing throughout years. The revenue and profit has significantly increased from Jan to March 2023.

Order Analysis 2: Brands and product categories are classified into 5 groups while allegra K and intimates are exceptional performing in revenue and profit respectively. Revenue and profit are analyzed by gender. Also number of orders is classified by order status within different age groups.

Distribution Centres: 5 distribution centres have generated more than 1 million pounds profit while Houston TX has the highest profit and profit ratio.

Revenue and Profit Forecast or Changes: The revenue grows exponentially while profit increases linearly. If the business grows at the same rate until December 2024, the total revenue expected is over £13 million while profit is increased to over £259K during December 2024. Also we could work out the revenue and profit while changing the profit margins drop by certain percentages.

Limitation: I was unable to revenue and profit anlysis at customer and product level due to having those recorrds above the limit set by tableau. Therefore I ended up analysing upto the level of product category and customer segment only.
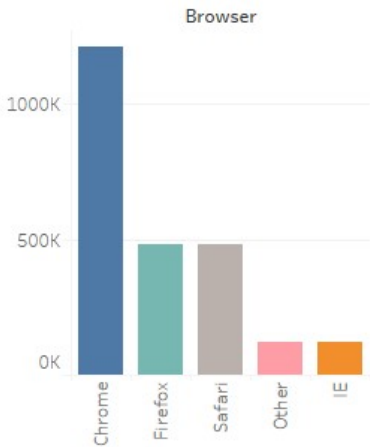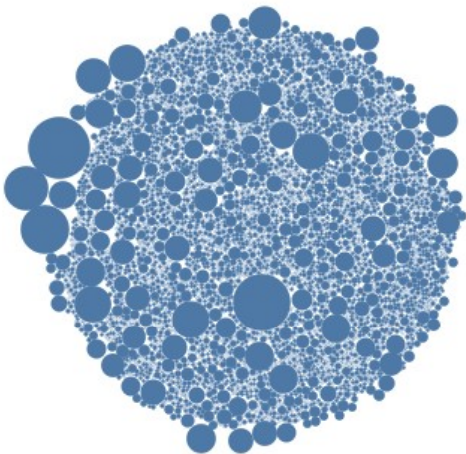
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Executive Overview: This dashboard shows the customers interactions with the ecommerce site of the company.
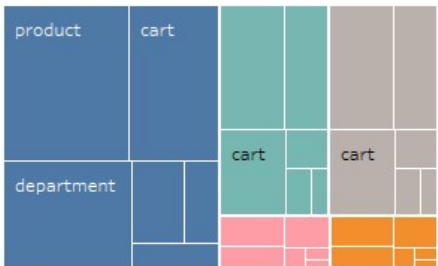
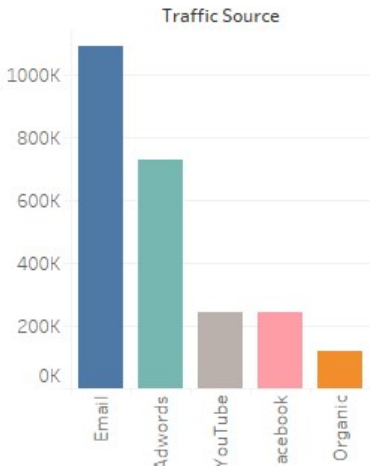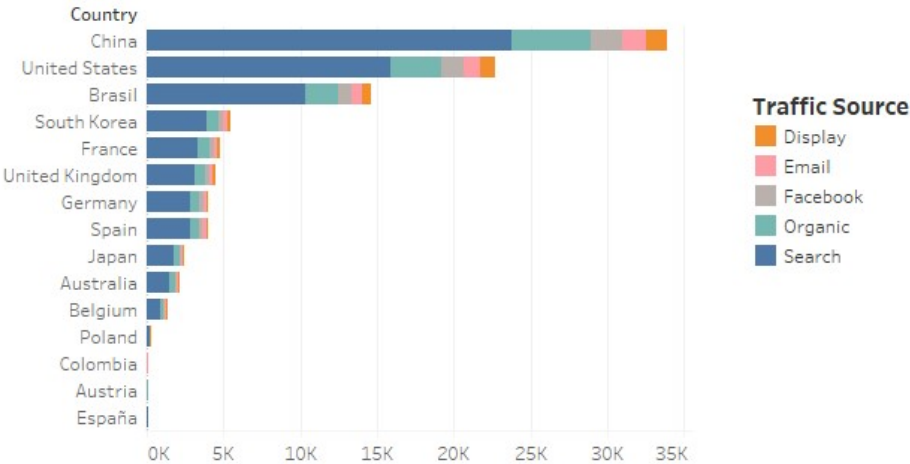**Select Country**
All

No of Customers by Browser

Browser

No of Customers by City

Mostly Visited Website by Browser

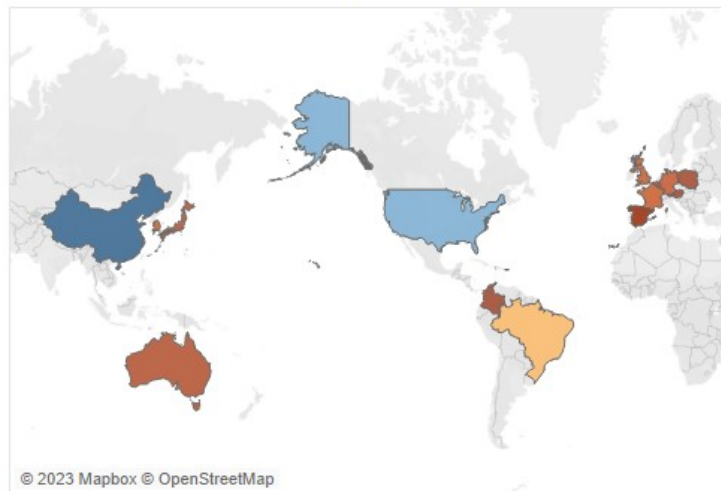### No of Customers Traffic Source

Traffic Source

No of Customers by Traffic Source

Traffic Source
- Display
- Email
- Facebook
- Organic
- Search

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Executive Overview: This dashboard shows the demographic information of customers and traffic source.
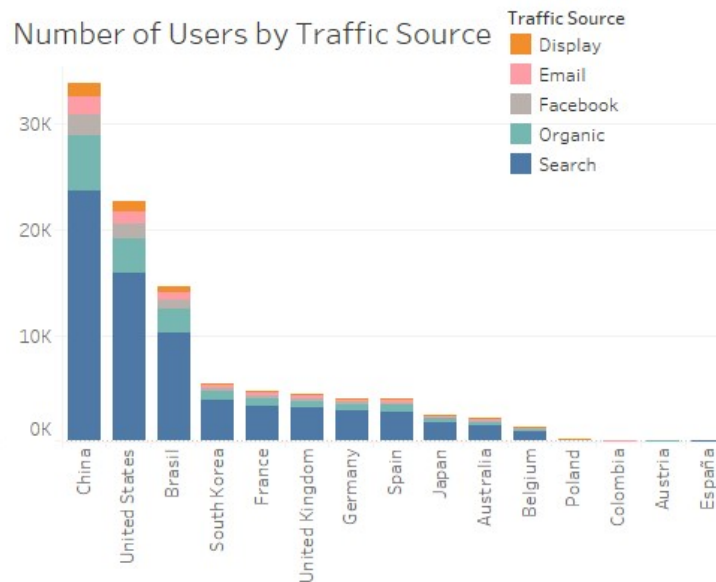
Number of Customers by Country

© 2023 Mapbox © OpenStreetMap

Monthly Traffic Source

Select Country
All
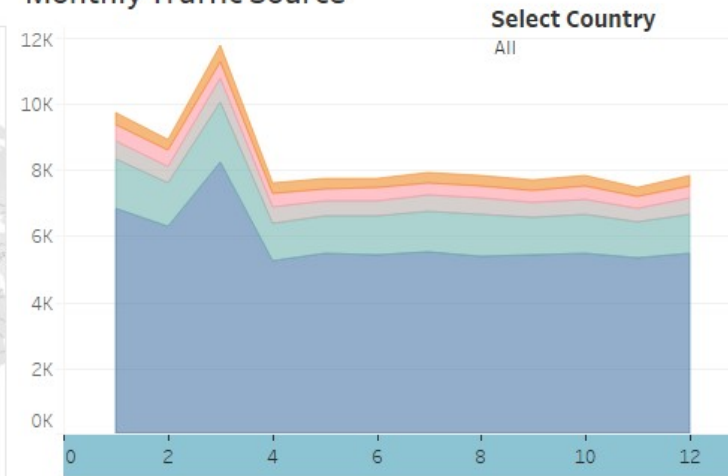
Number of Customs by Gender
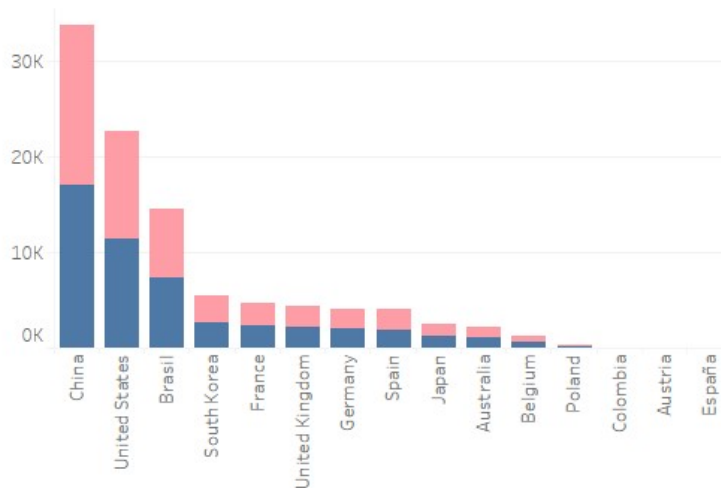
Number of Users by Traffic Source

Traffic Source
- Display
- Email
- Facebook
- Organic
- Search

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Executive Summary: This dashboard shows the performance of city, age group, customer, product..

Product Category by Revenue & Profit
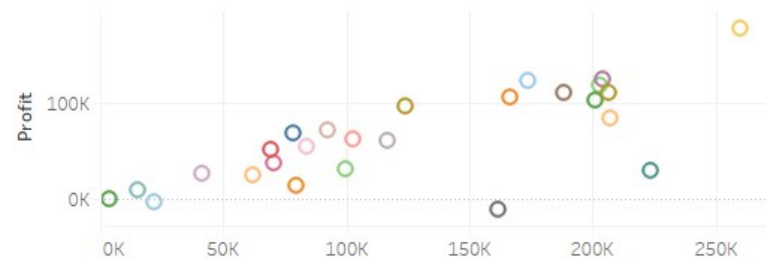
Customer Analysis by Revenue & Profit
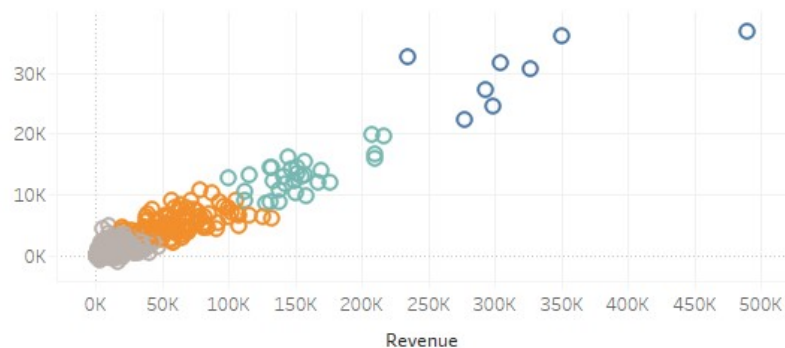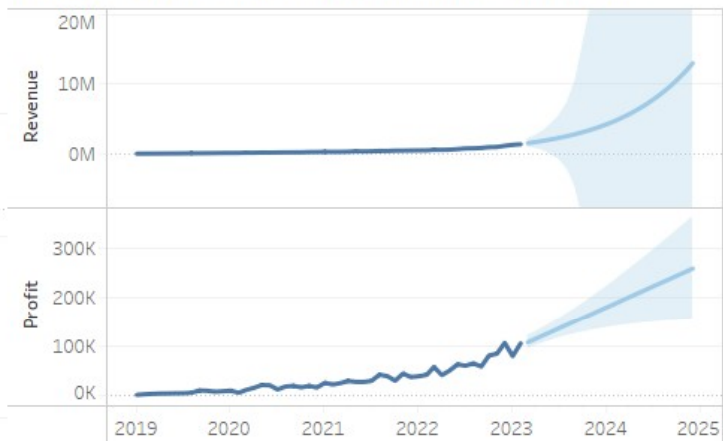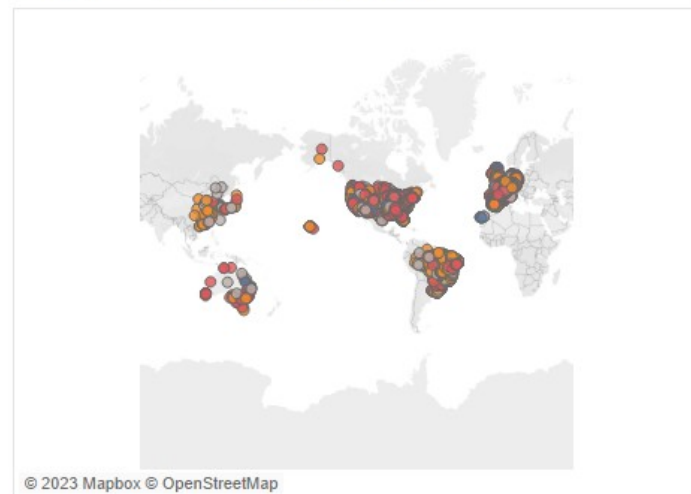

Age Group by Revenue & Profit

Select Country
All
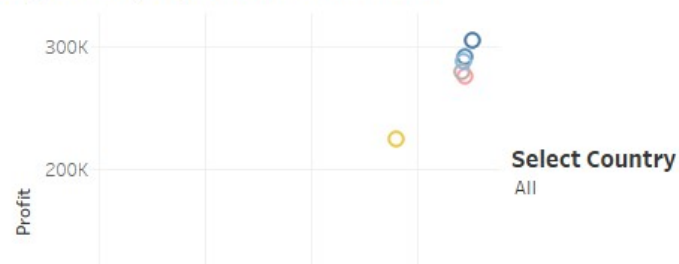
Total Revenue and Profit Forecast until 2025

Three Clusters of Revenue and Profit by City
Sales per Order and Profit per Person

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Executive Summary: TheLook Superstore

Please choose country and/or year from dropdown list on top right for dashboard interactaction

Key Performance Indicators

Country
All

Revenue	Profit	Profit Margins	Profit per Order	Sales per Customer
£20,397,054.27	£1,698,226.43	8.33%	£151.02	£255.67

% of Total Profit

-0.20%   30.20%

Year of Created At
All

Aggregate Profit by Country

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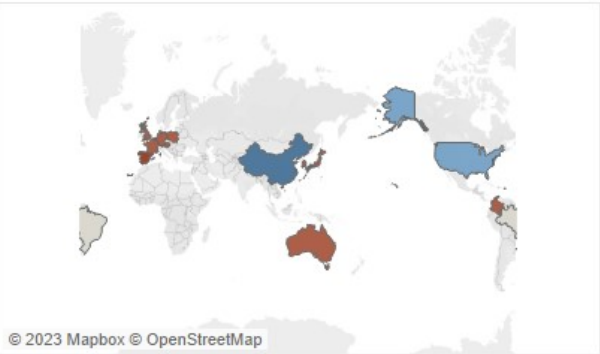
Total Revenue by Traffic Source
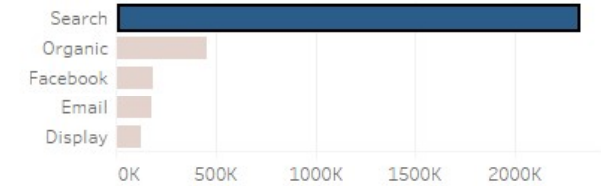
Monthly Profit and Revenue Trend
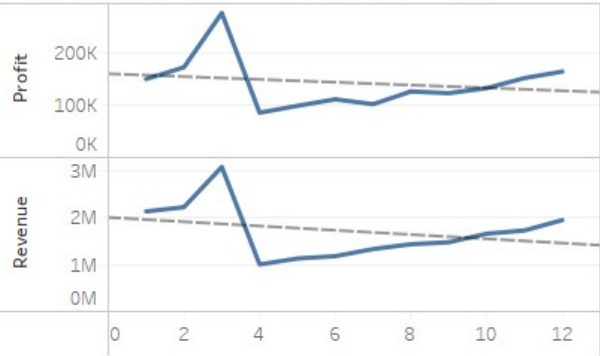
Total Revenue by Category

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Executive Summary: TheLook Superstore

This dashboard shows revenue and profit performance by age group, gender, brand and product category

Orders Status by Age Group
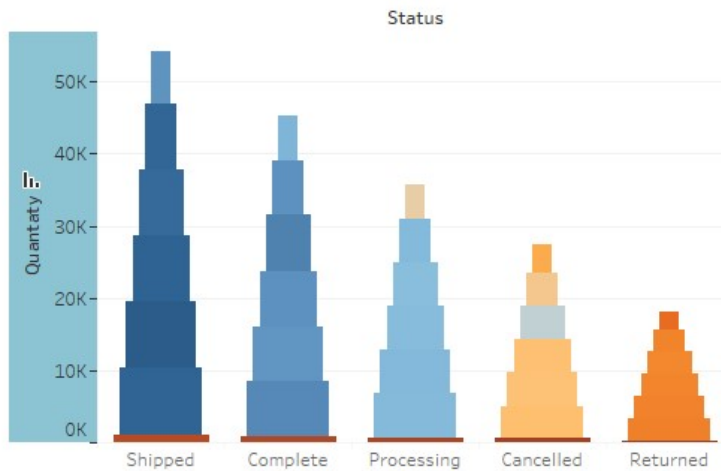
Category Performance by Revenue and Profit

Monthly Revenue and Profit by Gender

Brand Performance by Revenue and Profit

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The purpose of this dashboard is to show the performace of all Distribution Centres. Please chose the centre from dropdown list for its performance.

Distribution Centre Analysis

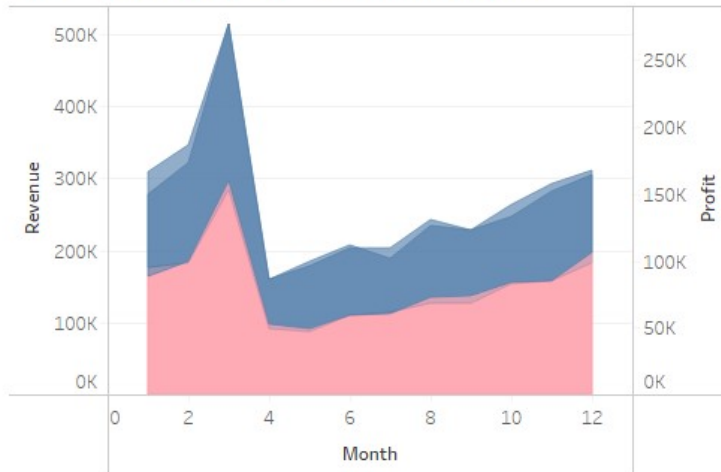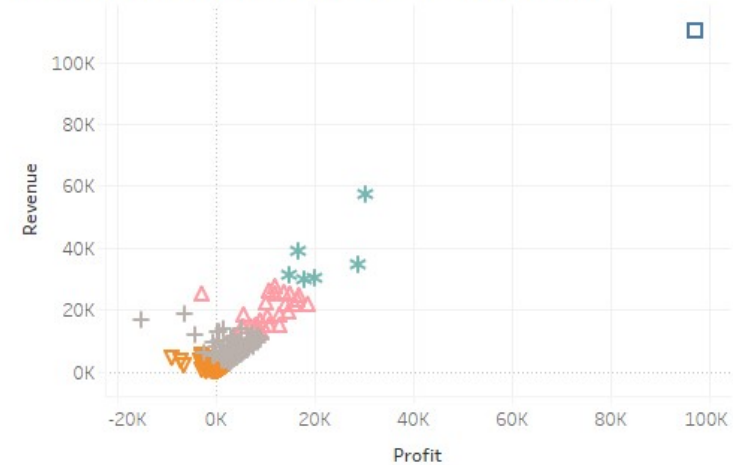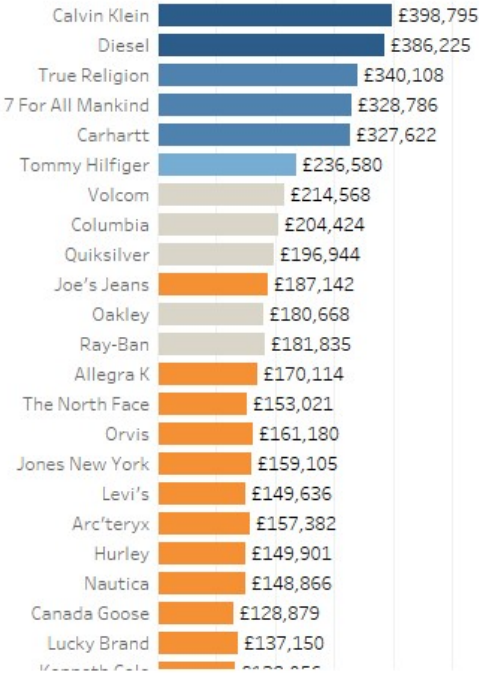|	Charleston SC	Chicago IL	Houston TX	Los Angeles CA	Memphis TN	Mobile AL	New Orleans LA	Philadelphia PA	Port Authority of New York/..	Savannah GA
Revenue	£1,246,129	£2,544,377	£2,966,871	£1,781,001	£2,693,354	£2,295,029	£1,534,842	£2,043,286	£1,782,336	£1,509,830
Profit	£631,945	£1,330,915	£1,579,644	£918,583	£1,410,964	£1,174,194	£809,418	£1,039,877	£923,813	£765,774
Num Of Item	29,422	41,193	39,228	30,375	41,773	31,895	23,105	29,777	29,019	21,516
Profit Ratio	50.71%	52.31%	53.24%	51.58%	52.39%	51.16%	52.74%	50.89%	51.83%	50.72%

Brand Performance

Brand	Value
Calvin Klein	£398,795
Diesel	£386,225
True Religion	£340,108
7 For All Mankind	£328,786
Carhartt	£327,622
Tommy Hilfiger	£236,580
Volcom	£214,568
Columbia	£204,424
Quiksilver	£196,944
Joe's Jeans	£187,142
Oakley	£180,668
Ray-Ban	£181,835
Allegra K	£170,114
The North Face	£153,021
Orvis	£161,180
Jones New York	£159,105
Levi's	£149,636
Arc'teryx	£157,382
Hurley	£149,901
Nautica	£148,866
Canada Goose	£128,879
Lucky Brand	£137,150

Product Category Performance

Category	Value
Outerwear & Coats	£2,519,485
Jeans	£2,328,034
Sweaters	£1,587,739
Suits & Sport Coats	£1,256,003
Swim	£1,224,756
Fashion Hoodies & Sweats..	£1,191,058
Sleep & Lounge	£1,034,798
Shorts	£980,748
Tops & Tees	£955,890
Dresses	£870,203
Active	£856,744
Intimates	£841,260
Pants	£807,013
Accessories	£787,462
Blazers & Jackets	£533,450
Maternity	£491,070
Underwear	£385,951
Pants & Capris	£364,076
Plus	£300,575
Socks	£248,543
Suits	£223,100
Skirts	£207,554

Name (Distribution Cente..
All

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These valuable insights from dashboards could be utilised for future business strategies in marketing, stockings and business expansion. Here are a few ways these findings can be used to inform future strategies:

Identifying growth opportunities: These insights help the business identify potential growth opportunities by analyzing business growth trends in both revenue and profit, customer interactions with their ecommerce site and their demographics. This information can be used to develop new products that meet customer needs and tap into emerging markets.

Improving decision-making: This information can be used to make informed decision on which products are most profitable, which markets are most lucrative, and which customers are most valuable.

Customer segmentation: By analyzing customer data, businesses can segment their customers based on factors such as purchase history, demographics, and buying behavior. This can help the business tailor their business strategies to meet the needs of different customer segments.

Product performance analysis: By analyzing sales and profit data, businesses can identify which products are top performers and which are underperforming. This can help them make informed decisions about which products to stock more of and which to discontinue.

Forecasting: These insights predict future outcomes in revenue, profit and stockings by optimizing the inventory management across the distribution centres. This can be used to forecast demand, anticipate customer behavior, and identify potential risks or opportunities.