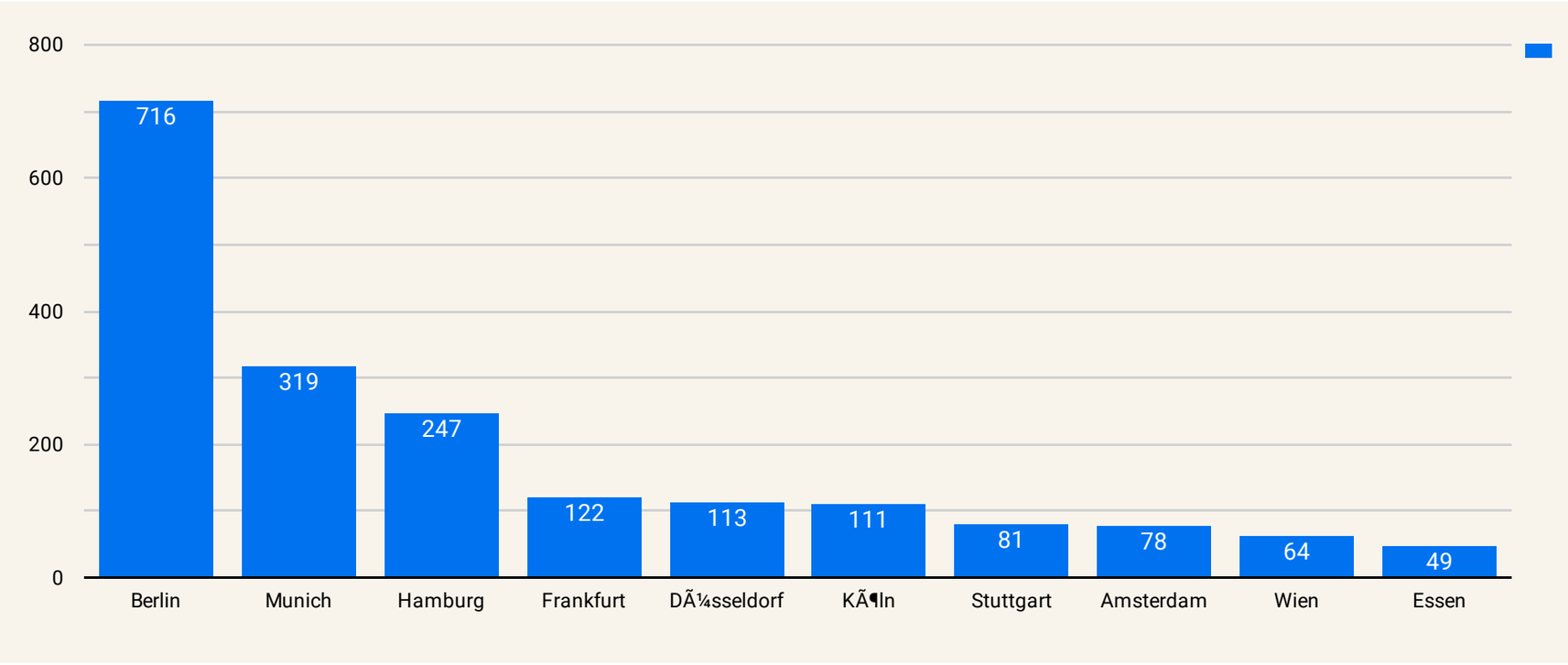
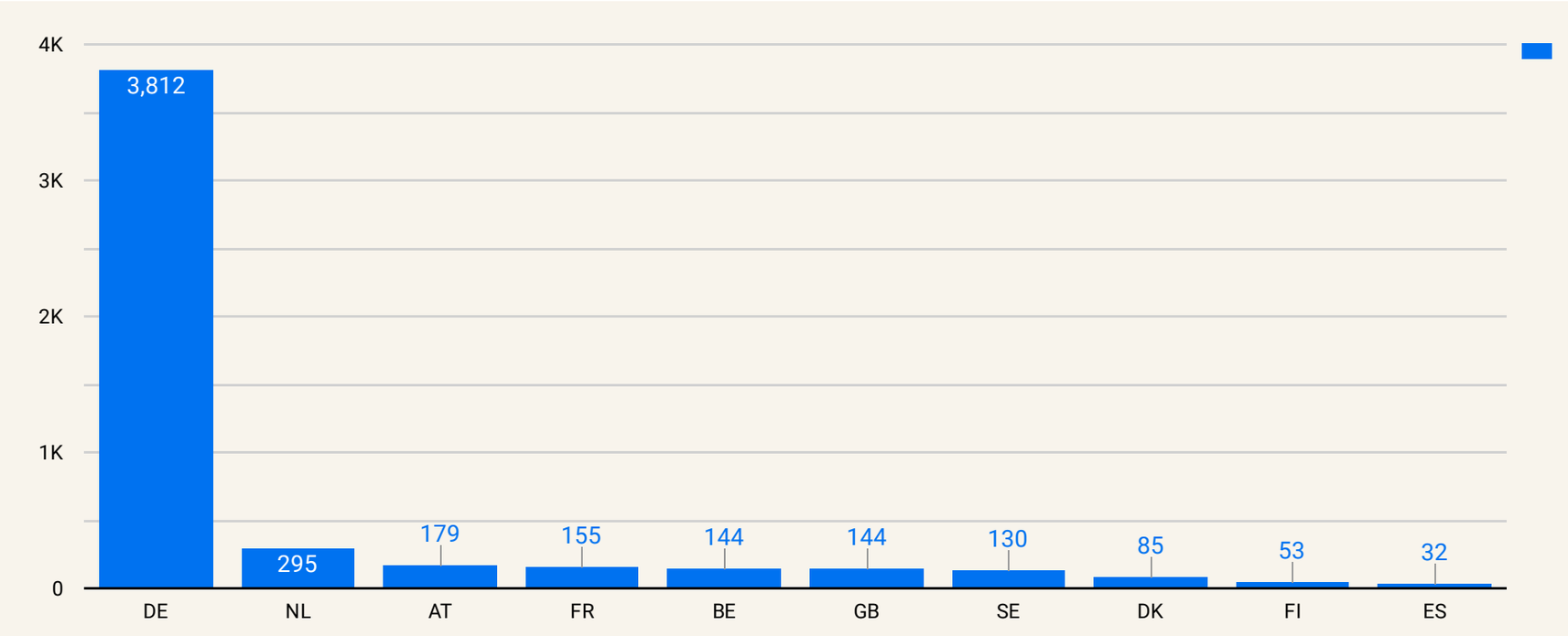
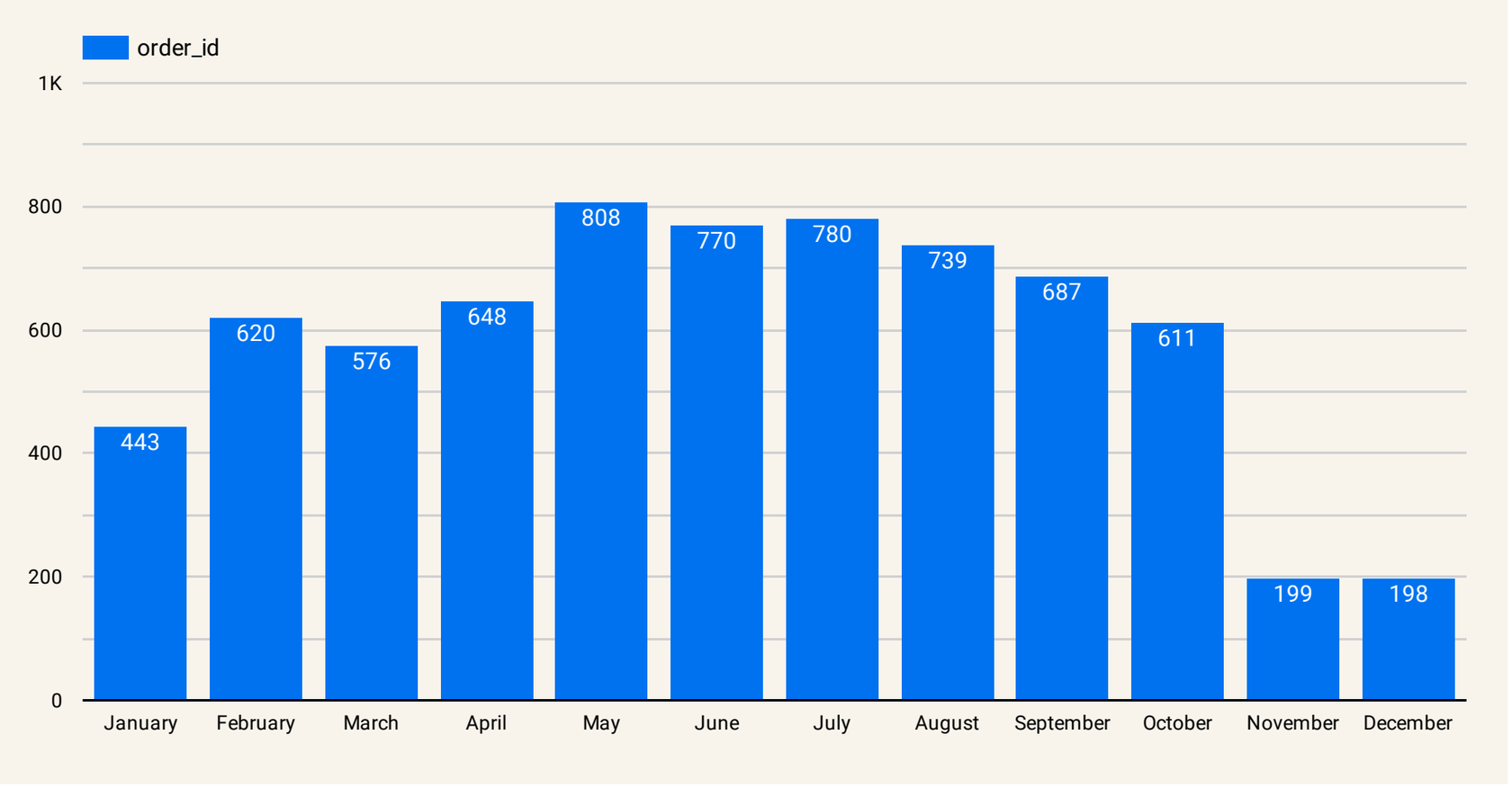
# Top 10 Cities and Countries by Net Items Sold




| Year | Net_Ite... |
|---|---|
| 2017 | 4.4K |
| 2016 | 759 |



# Order Count by Month

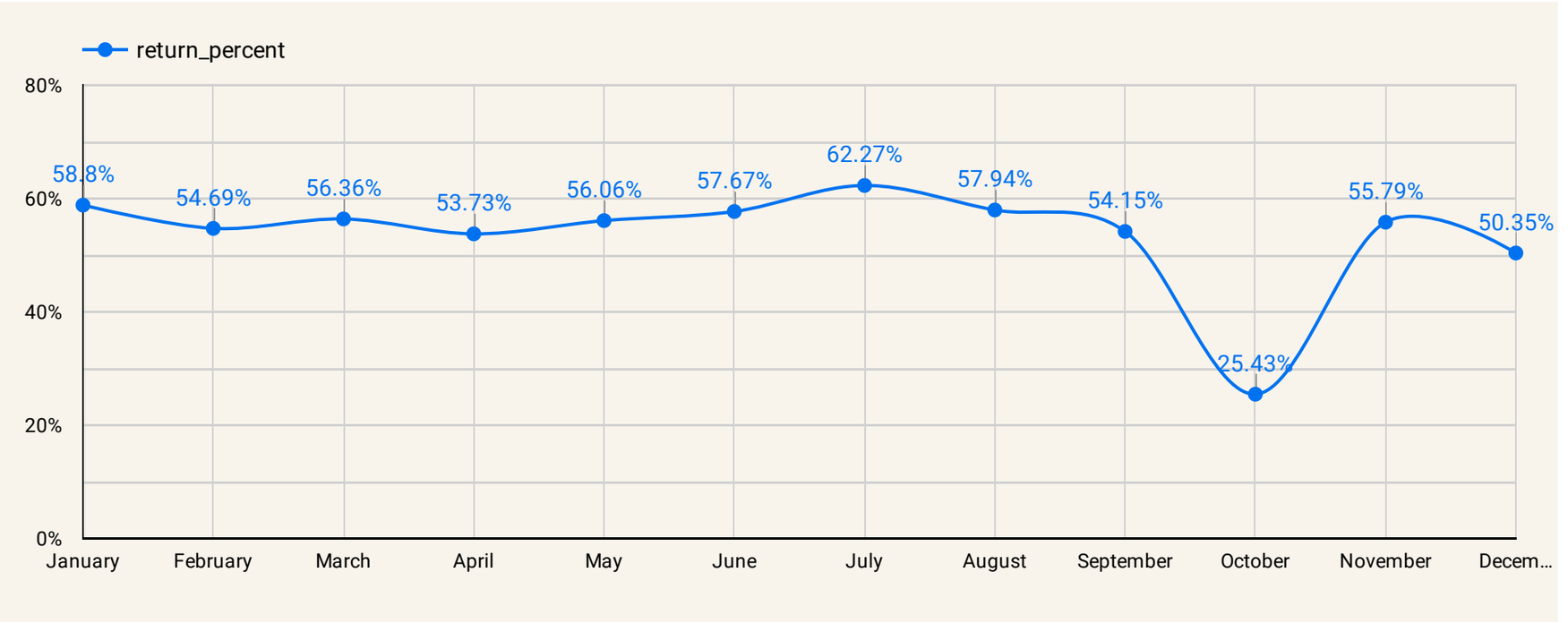



| Year | Order Count |
|---|---|
| 2016 | 1.1K |
| 2017 | 6K |

Average Order Value
242.8

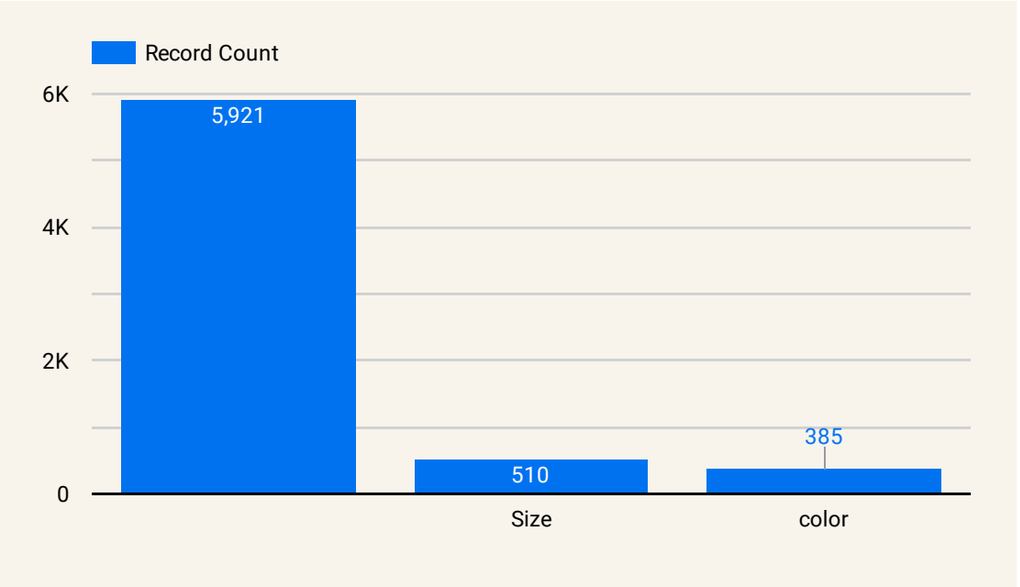
Deviation in Order Value
182.7

## Order Return percentage

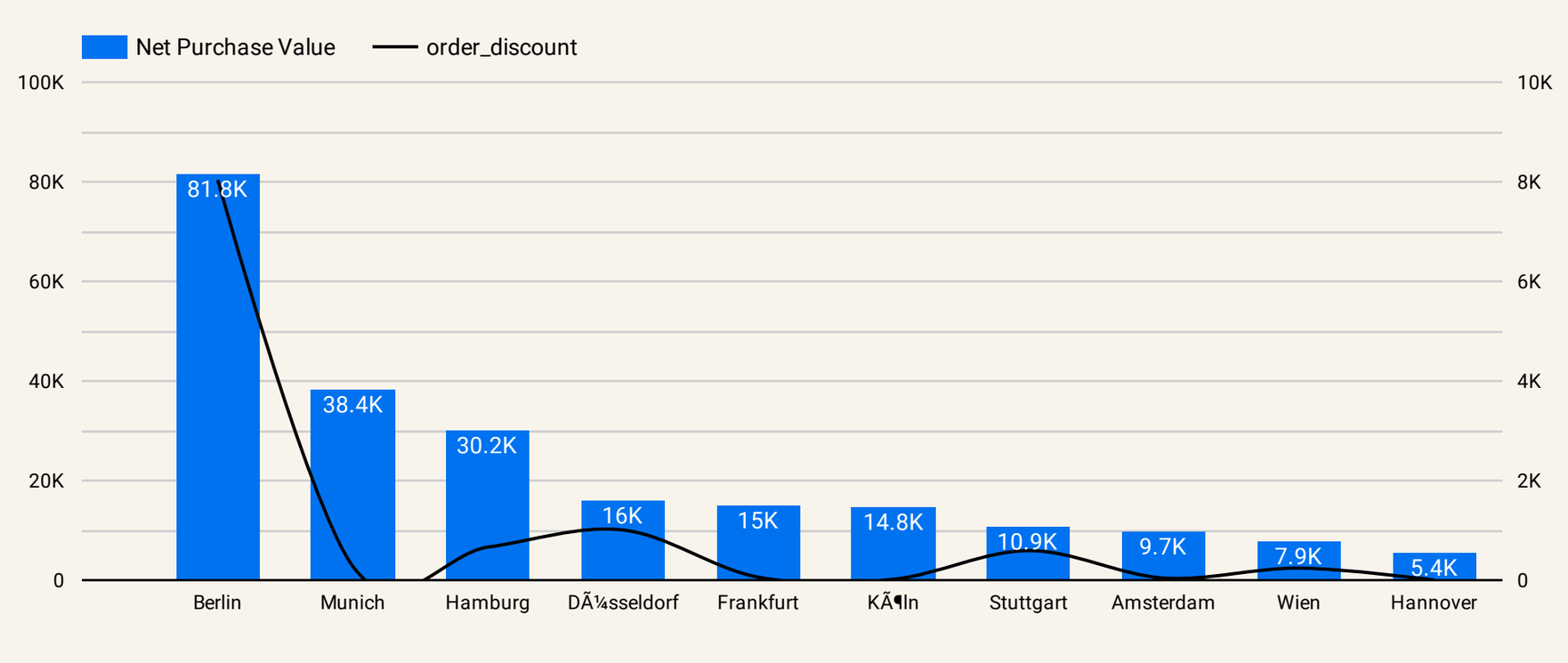




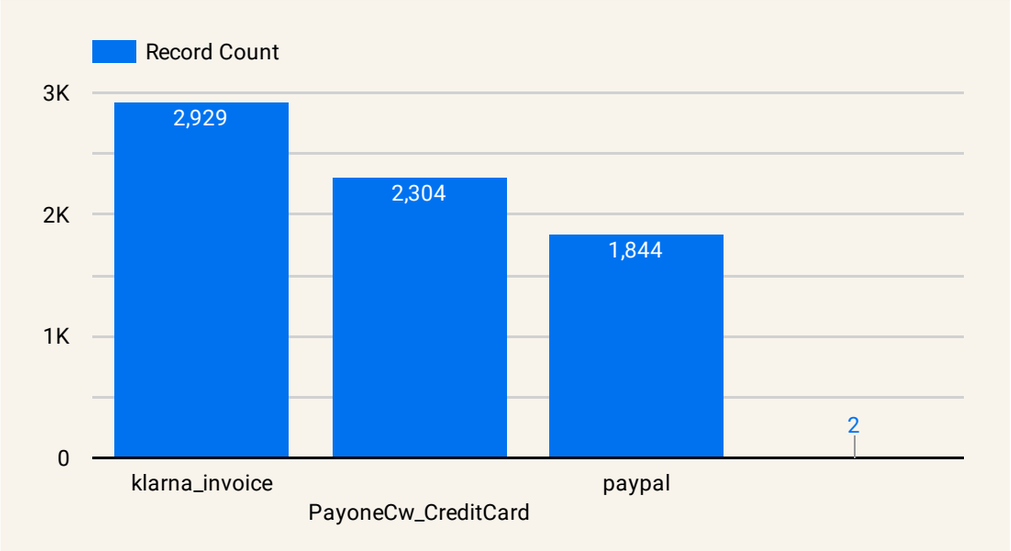
## Order Return Reason



## Top 10 Cities by Net Purchase Price vs discount provided




## Top Payment Methods



# Summary

**Process Followed (ETL):** I uploaded the data to the Google Bigquery which is a data warehouse and cleaned the data with the inhouse SQL engine provided by Google Cloud. The data is then loaded to the Google Data Studio which is a BI Tool for producing visualization and analysis. This process could be automated in future using Data pipelines as more data arrives.

**Q. Which information of orders is (most) important for an online shop?**

I am providing my answer based on the Raw Data Orders table.
The billing city/country is the most important as we get to know about the buying trends in various cities/countries.
This could help us in targeting the online advertisements/marketing accordingly and in saving marketing costs which is almost 12% of total company-wide budget.

**Q. Please deduce guidance from this information and give advice to the management team (3-7 bullet points summary)**

- The first Page in the report shows maximum number of order are placed in Berlin (city) and in Germany(country). The marketing spends could be diverted to other country or cities as word of mouth will also be a part of marketing in the top ordering cities and countries.
- In 2016, The maximum number of orders were placed in the month of November and December, this could be helpful in inventory projection and to be prepared for the demands.
- The top payment method is 'Klarna Invoice'. As a top payment method, a partnership could be formed with the service provider to provide special discounts to customers for increasing sales.
- The Top 10 Cities by Net purchase price represents the cities with the top spending customers. This could help the management to launch high value products in selected markets.
- The discount provided is uneven as it could be seen in the top performing cities vs the discount provided chart. It should be spread across the cities with low net purchase value.
- If we could get the customer data along with the order data, we could find the returning customers. The customers could be categorized in different segments and their ordering behavior could be found and targeted accordingly.

**Q. Deep dive 1: Let's assume one of our targets is to reduce our return rate - please prepare a graphical representation of how we can regularly monitor this? What other information would be good to add here on top of the order data?**

The customer could return the product based on many reasons, however the top two reasons found are color and size depending on the data. The data shows that 7% of the returns were made because the customer wanted to try different color of the same style and size. 5.4% returns were made due to size issue, as customers ordered multiple items of the same style and color. The other reasons could also be determined if we have the return reason/ feedback data from the customer. This will help us in reducing the return rate.

**Q. Deep dive 2: What insights could you derive from the data if our goal was to understand how to increase average basket value per order?**

- As I could see in the data that all the deliveries are free, a minimum order value could be set to provide free shipping, which will indirectly increase the average basket value.
- The average order value is 242.8 with a standard deviation of 182. The mode of the total order value is 169 which suggests that most of the baskets have an order value of 169. Using this we could aim at finding ways to increase the order value above 169 as this is the most common among users.
- Some freebies could be provided after buying a certain amount of products to attract customers.
- As of now there are only three payment methods, we could introduce more payment methods for ease of payment by customers.