BUSINESS PROPOSAL

ADS-A – Project – Group Green 4

Daniel Scholte (411192)

Imran Al-Touqi (3475379)

Jonathan C. Jayakusuma (3485943)

Kyle Ritchi (411191)

Mike Kotte (407865)

Ver. 2.0

25/10/2019

Cover letter

Dear Rob,

Thank you for considering us to help Informa in improving one of your client's company, the "Garden & Lifestyle". We are glad to have the opportunity to learn and improve on our skills by working with you as it is a real privilege. We expect to offer your needs and hope you are going to be satisfied with our work.

Our team specializes on data science, which I think is appropriate for this proposed improvement. We will be working closely your client's company dataset and make the necessary changes to come up with decisions on how to improve their business, which is the web shop in particular, and act on it.

To make an effective work, we would be looking at the core values of their business, their target goal and the best practices and approaches in order to bring up the message that what we aim for is achieved.

We believe that our proposal would improve your client's company. That in return be beneficial for them in the long run.

If you have any questions or feedback, please do not hesitate to contact us.

Kind regards,

The Team

Group Green 4

Table of contents

Executive summary

This proposal contains a coordinated plan and insight intended to help increase one of your clients' company, the "Garden & Lifestyle", revenue by giving strategic data-driven decisions to improve their web shop. Regarding they still have limited insights to the web shop and have not maximised the use of it.

Using strategic data-driven decisions to improve web shop is a great and smart move. Because by using data, you can really know how your company is doing. One of the perks with working with data-driven decisions is the ability to predict data. This will help the company to prepare for what's to come like challenges, trends and opportunities to improve the business. To be able to be a step further with your competitors is an advantage that must be taken into consideration, which is achievable by practicing data-driven decisions.

Data-driven companies act differently on the decisions, usually they adjust it with their needs. Generally, the higher maturity level they are in, the better it is for the company and the more benefits the business would receive.

On the other hand, using data-driven insights as a steering wheel for a "Garden & Lifestyle" company is still a rare thing to do and there are still a limited number of companies who use it. We believe that using one will be beneficial for the company.

Therefore, we are going to provide you with the plan and amazing insights that we have gained from the datasets of the company and strategic decisions that we recommend them to do, in order to improve their web shop.

The team

The team consists of 5 members all students from the Data science course. Since we are students, we agreed that we wouldn't out roles on every member. As that would limit what they can work on and prevents us from being flexible with our work. But more importantly, we all learn from each other by cooperating with our work. Our Project leader is Daniel, who would make sure every deliverable is delivered on time.

Member	Stream	Main Route
Daniel Scholte	Dutch	Software S4
Imran Al-Touqi	English	Software S4
Jonathan C. Jayakusuma	English	Business S3
Kyle Ritchi	Dutch	Software S4
Mike Kotte	Dutch	Software S3

Contact of the group leader:

Daniel Scholte – d.scholte@student.fontys.nl

The project

Introduction of your client's company

The client company is in the "Garden & Lifestyle" category and they are a family company. They host a website to sell garden related products, for instance garden sets, garden statues, lounge sets and others. They mentioned that they only host websites for sales and don't have a local store for the time being. Moreover, they are also constantly promoting their website by putting advertisement on random magazines.

Problem of your client's company

The company does not have any retail stores resulting in their dependency on their web shop since it is the only way for them to sell products to the customers. Furthermore, the company also made a wrong strategy by promoting their web shop on random magazines, which we believe are not going work because they did not determine their targeted audience and there are not a lot of people reading magazines right now.

Approach to the project

Looking at the problems above, we believe that attracting more people into the web shop is a must thing to do since it would bring in more people and increase revenues. Therefore, we are going to start with going through the dataset given using spreadsheet and elaborate the problem of each column and label which we think should be cleaned. Next, we are going to clean the dataset using Phyton. Then, we are going to visualize the data using Tableau onto diagrams and graphs. Finally, we are going to get insights from the data visualisation and provide the company with a report on what things they could improve, which are going to solve the company's problems.

Benefit for your client's company

The proposal would result in lots of benefits that will improve the business. Such as, the proposal would bring in more people into the web shop which will increase sales and bring more interest. In addition, the company would be able to predict outcomes so they can prepare themselves to make wise decisions to overcome problems. And by looking at trends, the company can be inspired to come up with new ideas and provide the audience what they desire.

KPI

Key Performance Indicator or KPI is a quantifiable value that show how effective is a company in achieving the key objectives. The KPIs that we have determined are provided down below:

1. **Increase the number of customers between 30-40 years old by 50%.**

   From the Exploratory Data Analysis that we did and the insights, it can be seen from the graph (provided in the "Insights retrieved" section) that most of the customers are between 41-55 years old. On the other hand, there are also lots of 30-40 years old customer, which are under average. We believe that in 30-40 years old, customers are starting to buy houses, and they tend to look for garden and lifestyle products to enhance their house. Therefore, we believe that increasing the number of customers in this range of age is going to increase the company's revenue and be beneficial for the company.

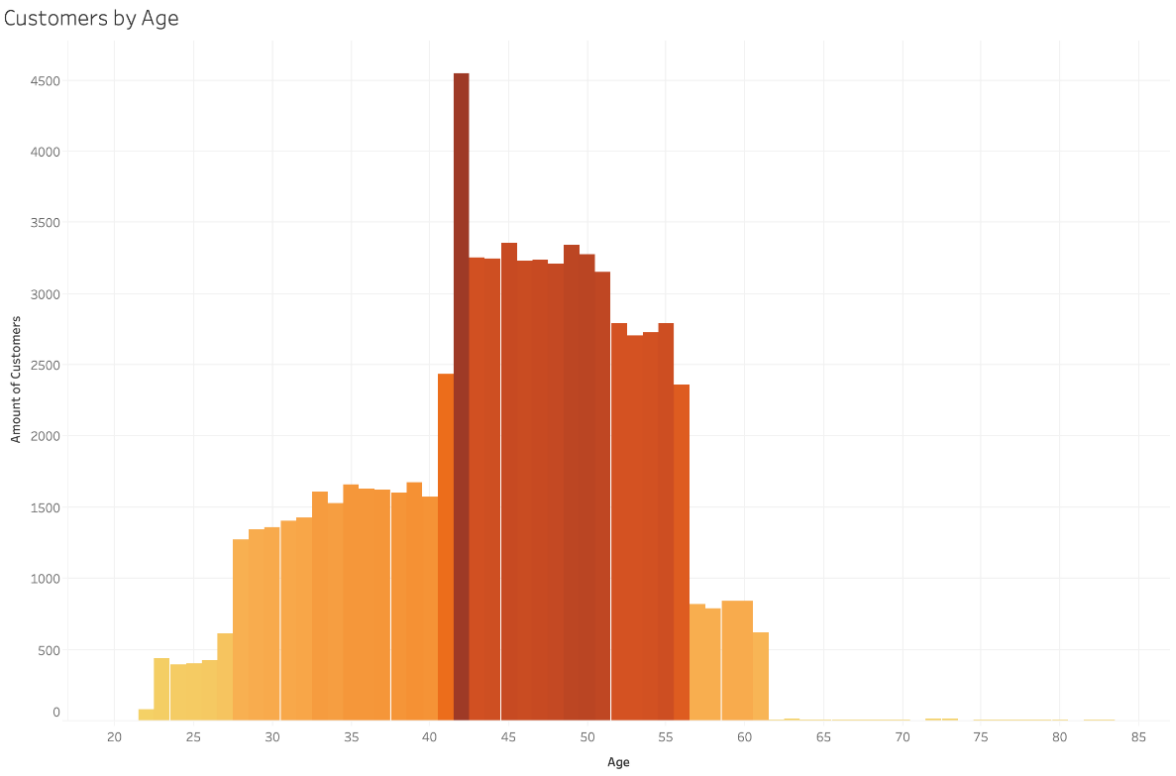
2. **Decrease the number of returned products returned by 20%.**

   From the Exploratory Data Analysis that we did and the insights, it can be seen from the graph (provided in the "Insights retrieved" section) that most of the reasons that customers return the products are disappointing quality or defect products, the article did not meet their expectations and they did not like it. Therefore, we believe that the company can decrease the number of returned products by 20% is going to be beneficial for the company and increasing the customer satisfaction.

Insights retrieved

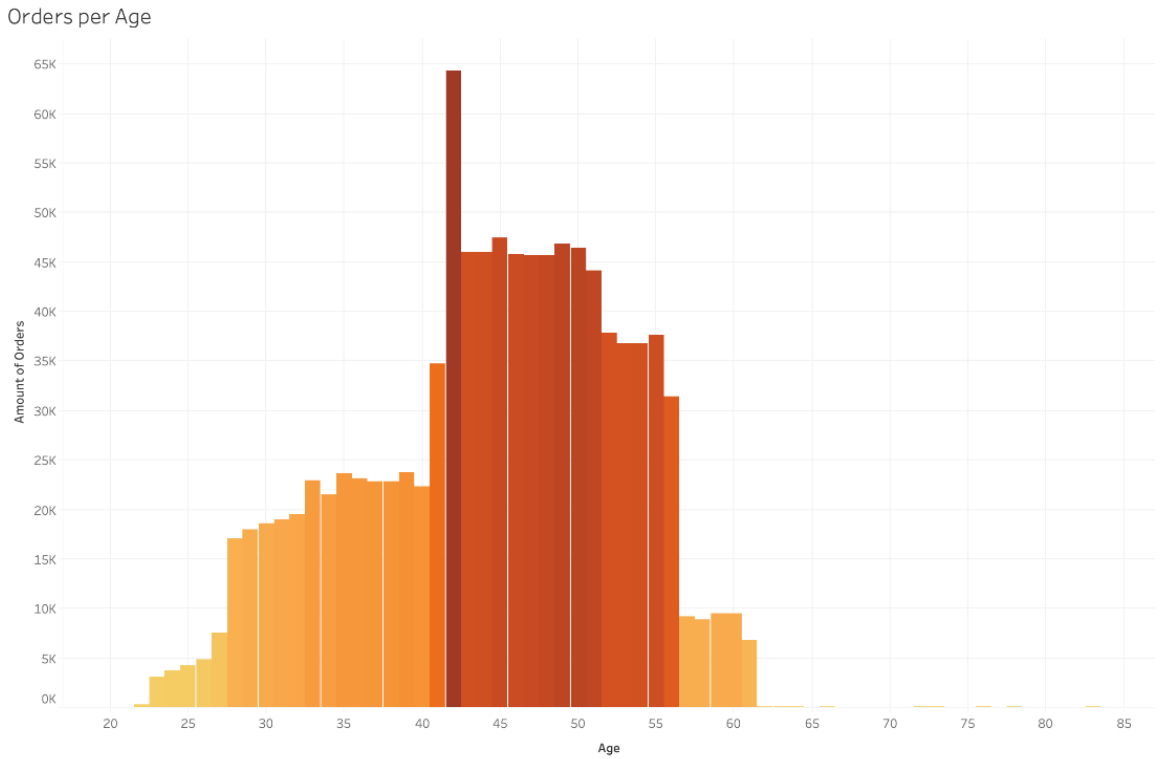
These insights are the result of the Exploratory Data Analysis (EDA) that we did on your client's company dataset which we believe will meet the KPIs we determined before. The insights we retrieved are provided down below along with the KPIs:

1. Increase the number of customers between 30-40 years old by 50%.
   a. Customers by age



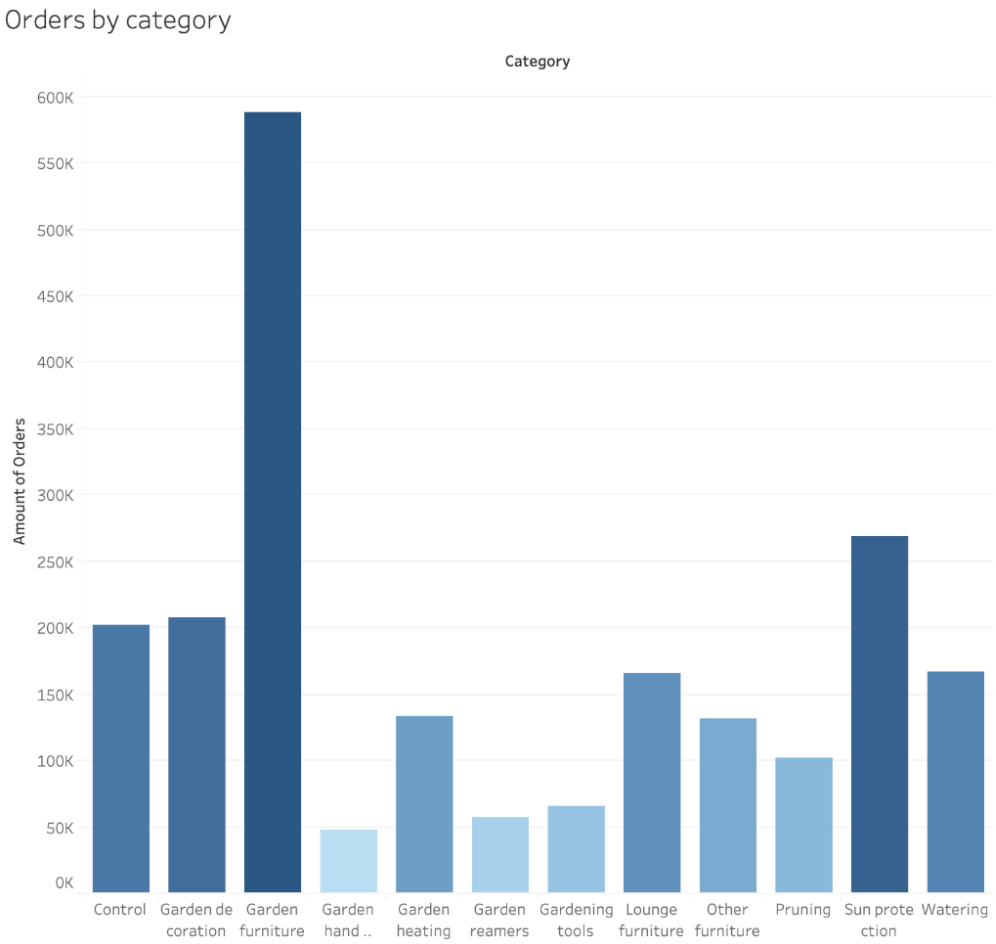
It can be seen from the graphs, that most of the orders are from customers from 41 to 55 years old. We can assume that they are the main demographic for the business as satisfying them will have a higher impact. We also think that customers from 30-40 years old looks promising as we have explained before in the KPI section. Moreover, we understand that not every customer on their age should have high number of customers, but we believe improvement is possible.

b. Orders per age



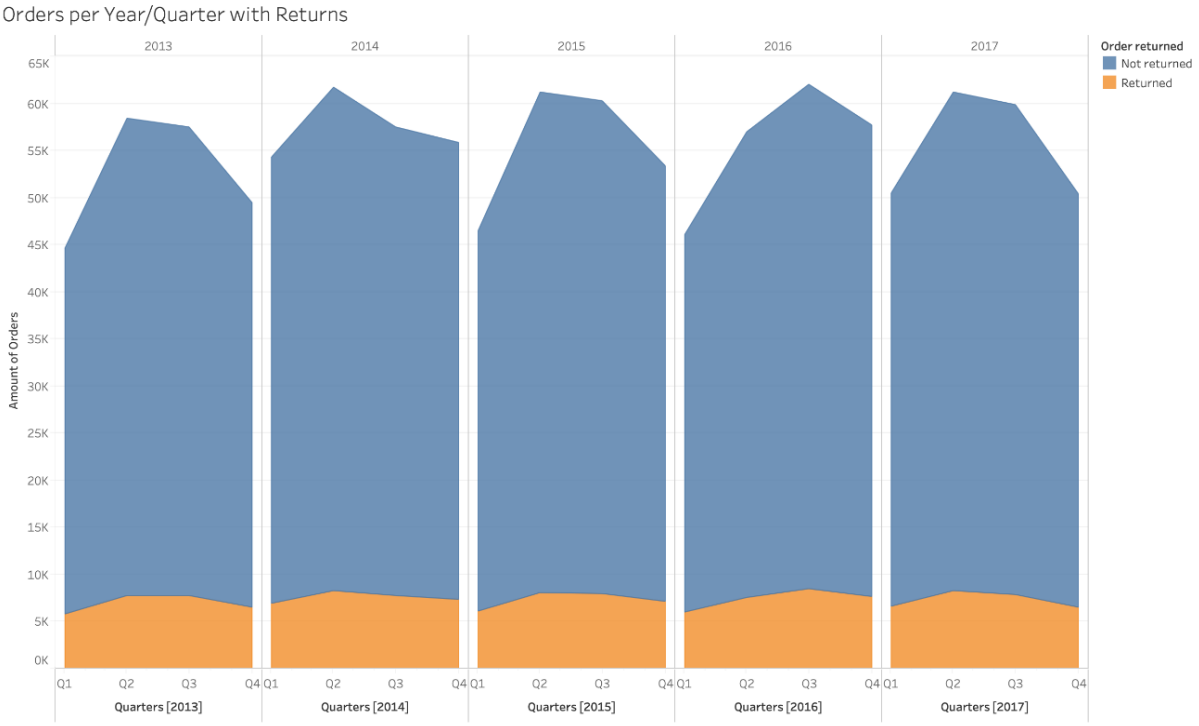
It can be seen from the graph, that it is like the previous one. Here, it can be concluded that all age groups place the same amount of orders on average.

2. Decrease the number of returned products returned by 20%.
   a. Orders by category



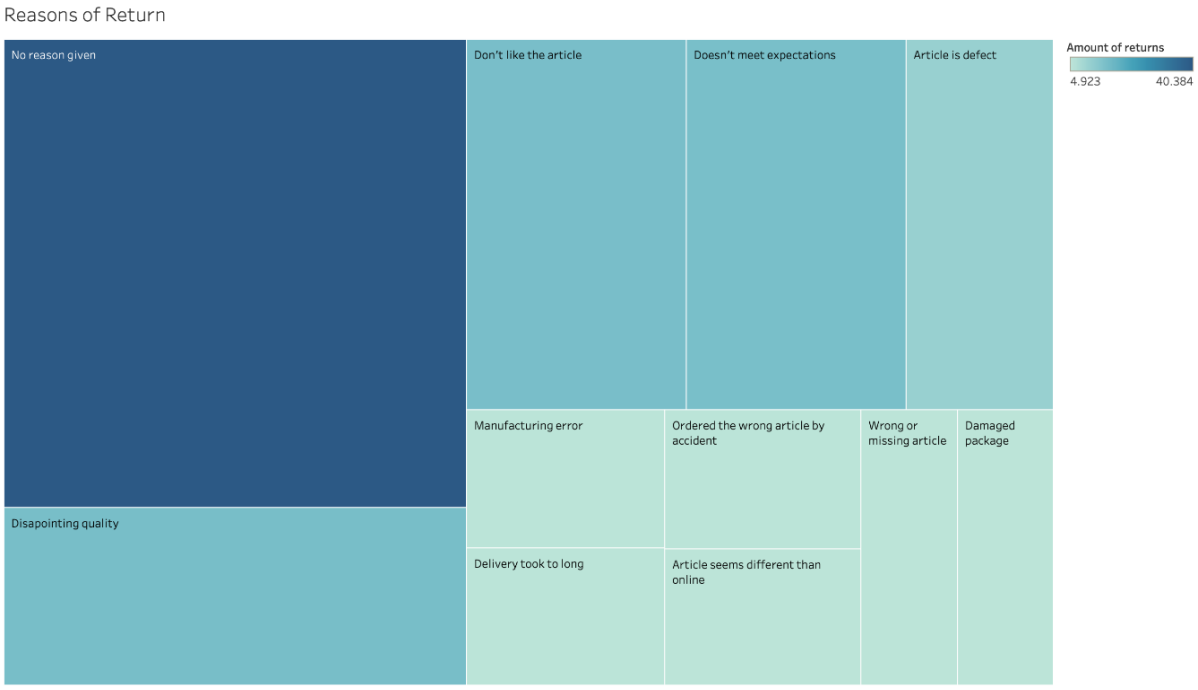
Many people seem to be interested with furniture aspects of gardens instead of actual gardening. This explains that customers are more into furnishing as it seems like it's a must for every garden to have one. If we can focus on adding better furniture, we could improve sales

b. Orders per year quarter with returns



This is an interesting and useful graph, where it shows the orders with the returns per year. We can see that there are some returns which is roughly 10% of all orders. Of course, return of orders means customer dissatisfaction and refund which is a negative impact. We can solve this issue by determining the cause of all returns, and act accordingly for each cause.

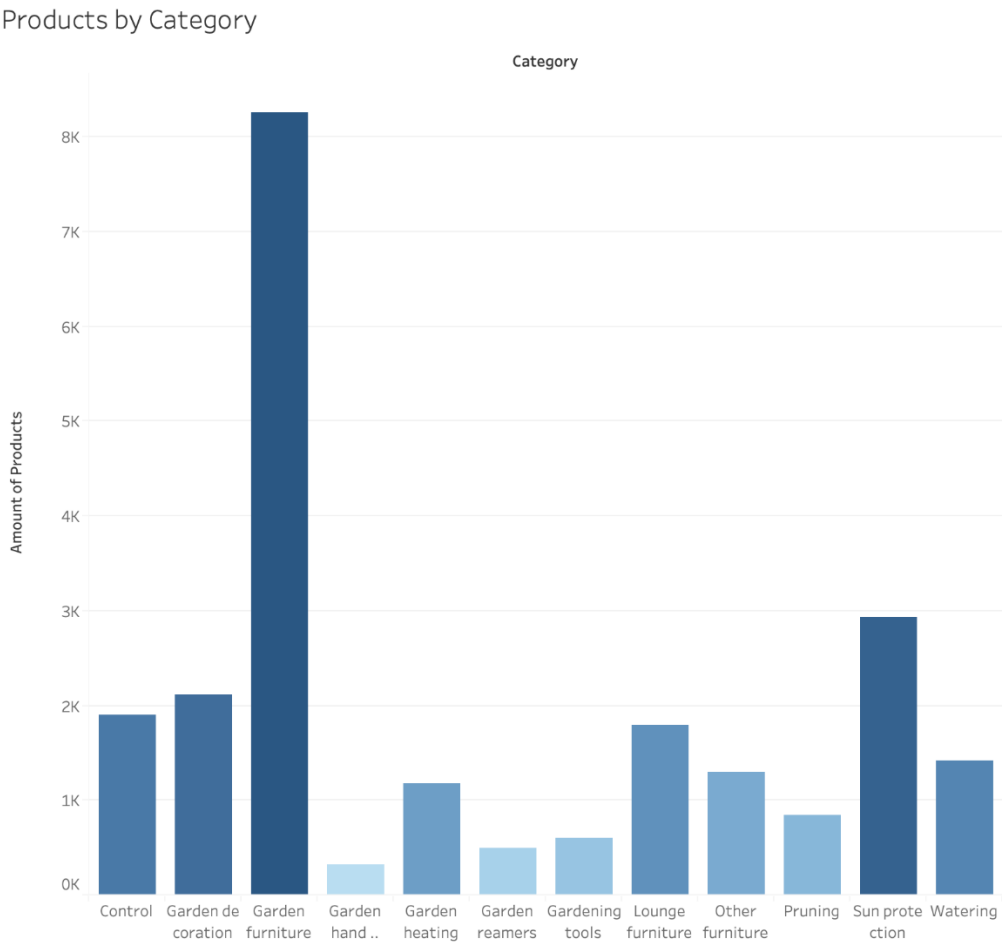
c. Reasons of Return



It can be seen from the diagram above that in most of the cases the customers did not give any reason for return. Moreover, the reasons are it is either disappointing quality or defect product, also the customers stated that they did not like the article, or the article did not meet their expectations. The rest are manufacturing error, long delivery time and others.

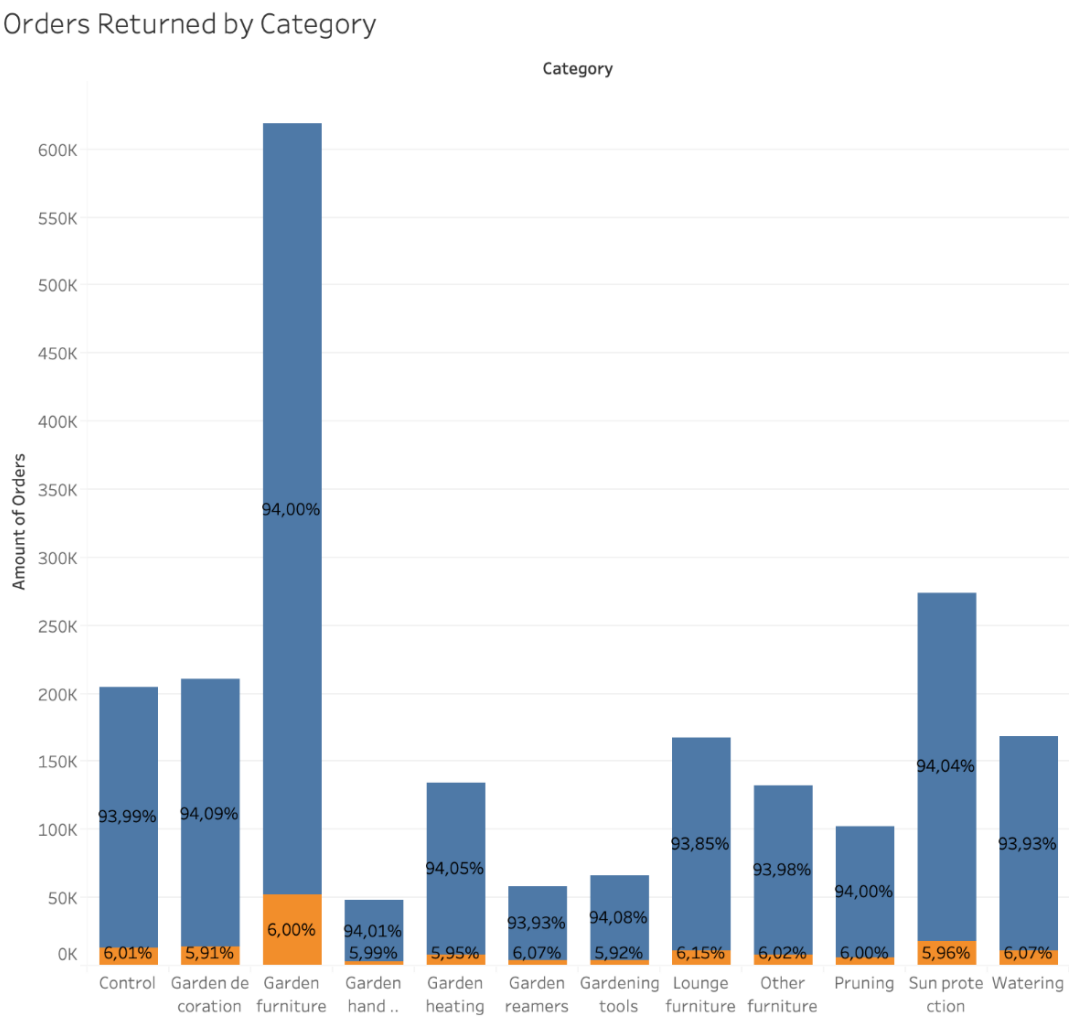
3. Others.

a. Products by category



It can be seen from the graph that the largest ordered product category is “garden furniture” with approximately 8200 of them have been ordered. Following “garden furniture” are “sun protection” which is reaching 3000 orders, “garden decoration”, “control”, and so on.

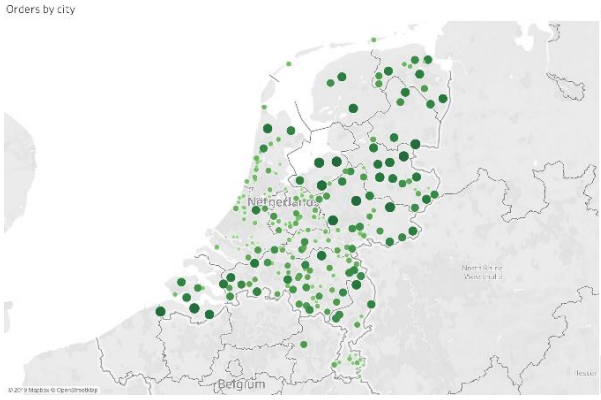
b. Orders returned by category



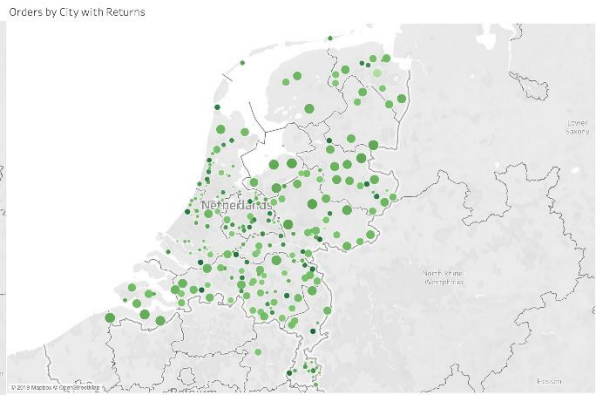
It can be seen from the graph that “lounge furniture” is the product category that the customers return the most. The return rate is 6.15 percent from the total ordered products. Following “lounge furniture” are “watering” and “garden farmers” which have the same rate, “other furniture”, “control”, and more.

c. Orders and returns per city

Orders per city

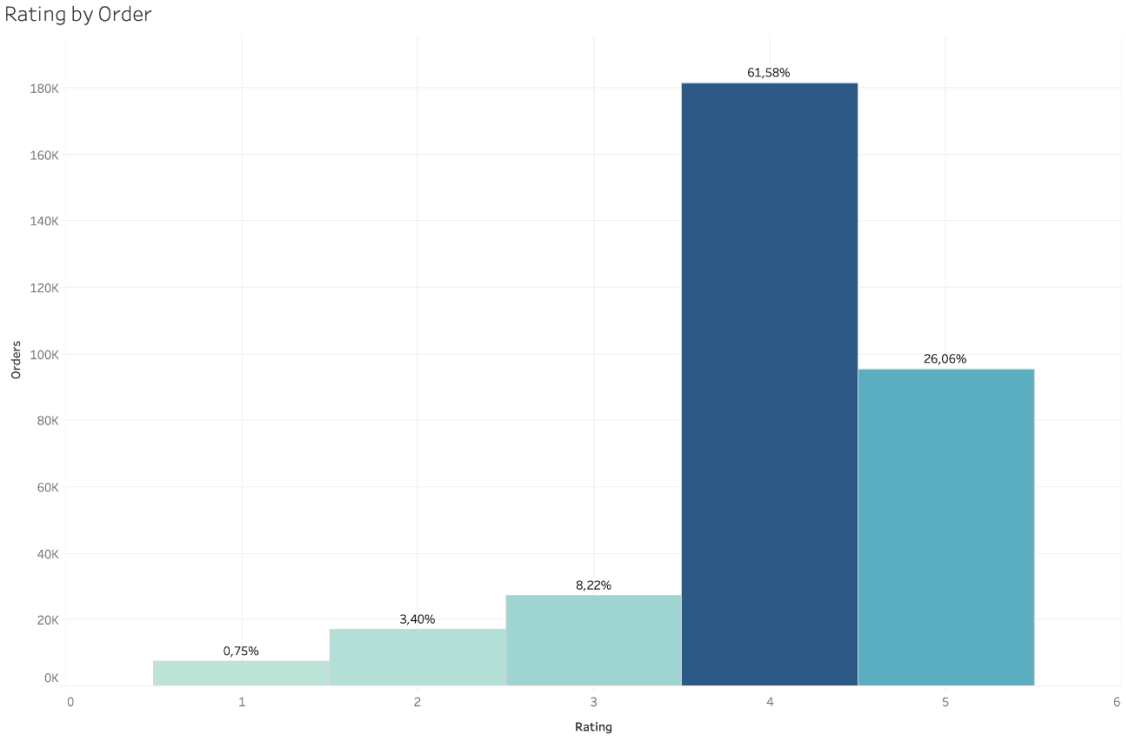


Returns per city



It can be seen from the two diagrams provided above, that the places of orders are identical to the places of return. This can be because the same person orders and returns multiple orders overtime. So, what we can learn from the graph is that the places of order do not affect the returns because they are very similar and can't depict any differences.

d. Ratings by order



We can see that most people rate the orders with 4, second most being 5. Although this is not too bad, but this also means that most of the orders full customer satisfaction is not met.

Risks

We proposed some risks that we might encounter during our process work. This would help us act accordingly in each situation and to prepare our selves to prevent or overcome each risk. The risks, the probability, their impacts, and our action to prevent are provided down below in the table.

Risk	Probability	Impact	Action to Prevent
Misunderstanding the goal	Low	High	We make sure we go over the topic and discuss it with one another, to make sure we're all on the same page and know what to achieve.
Product is not delivered on time	Medium	High	We should manage time efficiently and work on each task with the time it deserves.
Data is lost/ Corrupted	Low	Medium	Create back up files or make an online repository
Data is leaked	Low	Medium	Make sure to work on environments only accessible to team members to prevent data being shared to unauthorized people.

Conclusion

In conclusion, based on our approach and the insights we retrieved. It can be seen, that using our service will improve your client's company web shop which will impact their business positively. Moreover, it will also be beneficial for you as a consultant company. The market will see you as a great consultant company since one of your client's company is succeeding.