Orientation Challenge: Overview Report

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1. Introduction:

A good overview of data can save but also make a business an incredible amount of money. Simple graph can determine decisions that one can make to improve the flow of the process. Data is everywhere. Data can be cleaned and processed into graphs, charts or any other form of high-level perspective so that it can be communicated to for example, managements, clients, stakeholders or colleagues. Someone in a management position can give key insights that are derived from this data analysis and make decisions based on the data.

This overview is to give insight on the possible decisions that can be made based on the raw data that is processed into a high-level format. Decisions can be made based on which management position was chosen and which data can be deemed as important for this position.

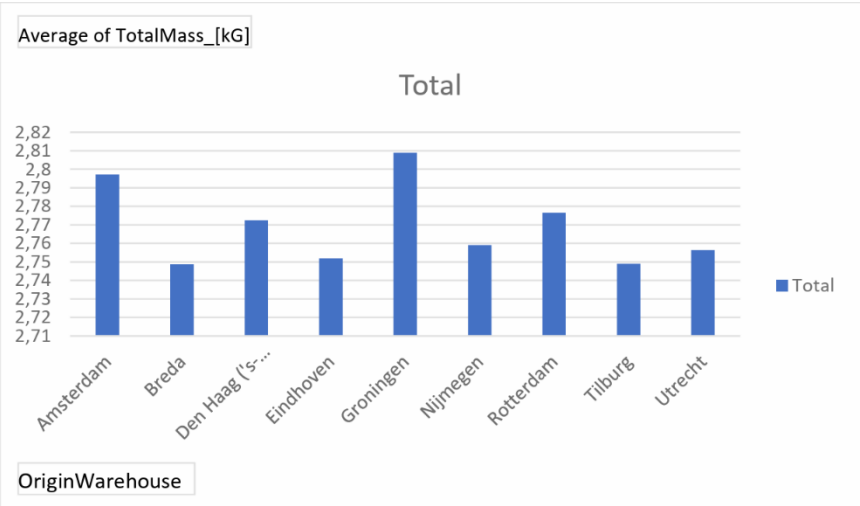
2. Overview:

There are four different management positions for this assignment. The sales manager, transport manager, order picker or warehouse manager. Each manager would be interested in different types of data. Throughout this challenge I found that some managers can also be interested in other types of data as well. Below I will give the three different descriptions of three KPIs found from the data. The chosen management position will be: **the transport management**. This position is primarily interested in all that has to do with logistics within the company. The primary data fields that this position could be interested are the following:

- Cost of transportation
- Total mass
- Distance travelled

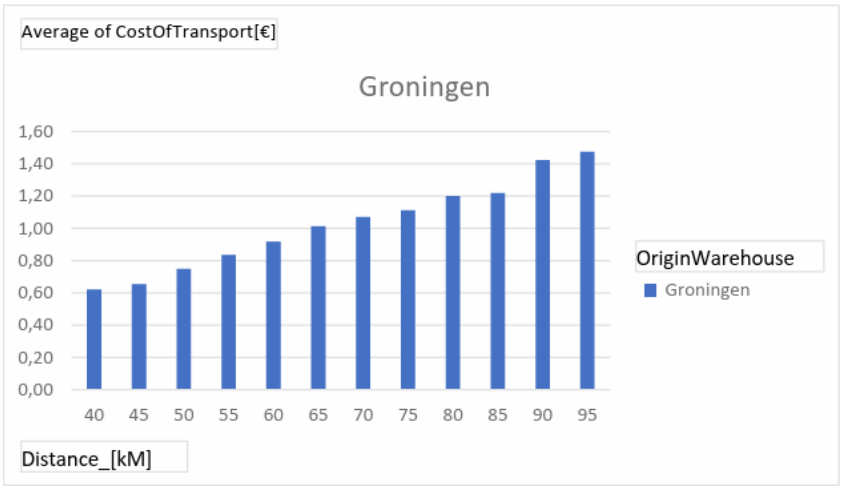
In doing this research, it was found that this role can also be interested warehouse location for example. See the overview of this data below.

2.1. Average total mass by place of departure:



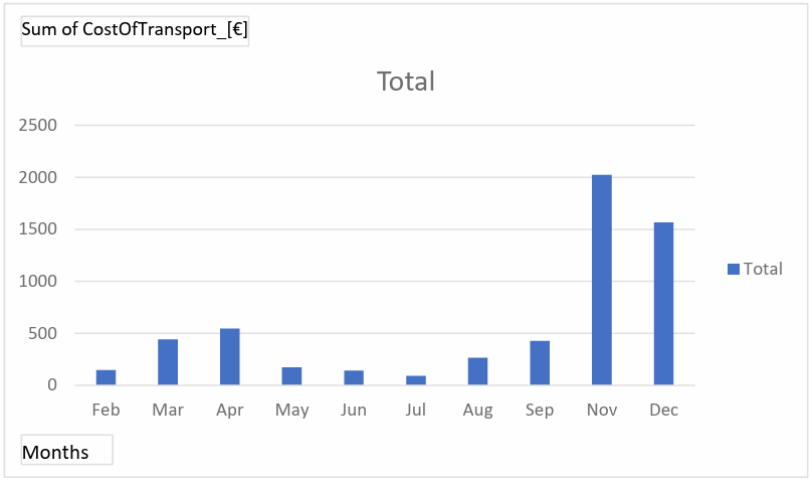
As can be seen in this graph, the total average mass that is the most significant are the two cities of Amsterdam and Groningen. This graph provides insight into the average weight of shipments that are coming from different cities. This can help the manager understand the distribution of shipment vehicles across different areas. For example, more trucks near the cities Amsterdam and Groningen. This can also influence the route planning since more trucks are needed in some areas than others.

2.2 Average cost of transportation by distance travelled:



The average cost of transportation per kilogram can be seen in this graph. What this graph also provides is insight into how these two variables are connected. For example the manager can better under if there are any patterns in transportation cost based on distance covered. Take a look at 85 kilometres. The average cost is around 1,20 euros. Just a bit over 80 kilometres. However when you take it to 90 kilometres then suddenly the price spikes by 20 cents. This can be done for all of the cities and the above graph only provides insight into the city Groningen.

2.3 Total cost of transportation by date and time of shipment:



The sum of the transportation costs based on the month of the year can be seen in this graph. What this Graph provides is insight that allows the manager to identify any fluctuations in transportation of the specific course of the year. This can be very useful for budgeting and planning. For example, more budget can go into November and December while less trucks are needed for months like June and July. This graph can be extended to also give the exact time for when costs can be affected as well.

These are all different scenarios that data can provide more insight into. As stated previously, the manager can also be interested in different data as well. **2.1** provides an example of this as the manager makes use of the warehouse location, a field that was purposely not mentioned above. The manager can also be interested in the number of items that need to be delivered for example to see if there is enough space within the trucks for them.