

Susanne Majcug

Data Analyst, SAP FICO specialist,
Finance and Accounting

About me



Hi! I'm Susanne Majcug, a SAP FICO Consultant and Business/Data Analyst.

I enjoy working with system implementations and finding efficient solutions by combining technology, processes, and people. My goal is to grow into a leadership role, keep learning, and use my data analysis skills to create real value for businesses.






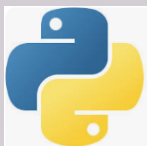

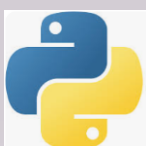

I've worked for many years as a SAP FICO Consultant, Business Analyst, and Chief of Accounting before moving to Croatia. Since then, I've focused on business development, accounting, and business analysis. More recently, I've taken a Data Analytics course to sharpen my analytical and presentation skills — and I'm excited to dive deeper into AI and how it can make businesses even more efficient in the future.

I thrive in international environments, enjoy sharing knowledge, and take pride in delivering quality work on time — I've never missed a deadline! At the same time, I believe being open, honest, and collaborative is just as important as technical skills.

If my profile sounds like a good fit for your company, I'd be happy to connect and explore how we could work together.

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Projects

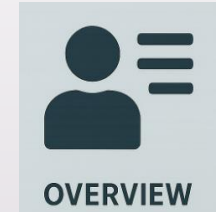
Project	Game Co	Influenza Season	Rockbuster Stealth	Instacart Grocery Basket	World Happiness report
Goal	Identify the best way to allocate the marketing budget is (sales volume or other variable).	Assist a staffing agency to allocate resources efficiently during influenza season.	Analyze data to provide recommendations for investment in online sales.	Provide insights about sales patterns for Instacart. Aim: Customer segmentation.	Identify key factors for a high happiness score.
Tools	Excel 	Excel, Tableau  	SQL  	Python, Excel  	Python, Tableau  

GameCo market positioning



GameCo – Project summary

The assignment was to perform a descriptive analysis for the video game company GameCo, in order to provide insights of how GameCo's new games could position themselves in the market and determine how to allocate the marketing budget.



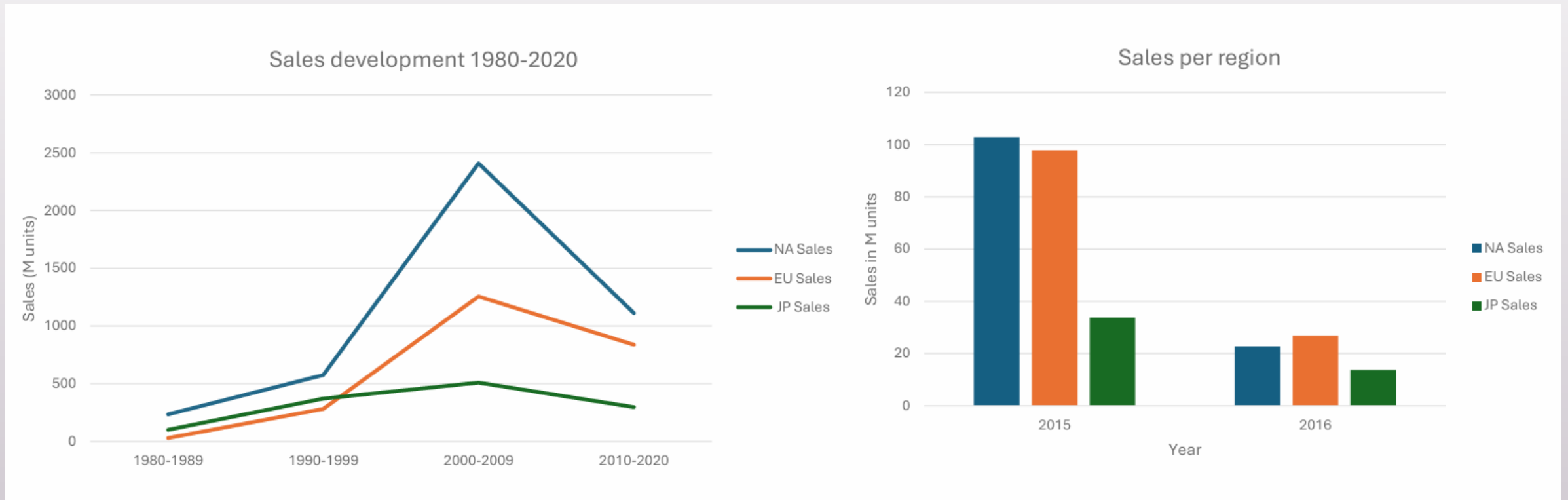
To answer following key questions: 1.) Are certain types of games more popular than others? 2.) What other publishers will likely be the main competitors in certain markets? 3.) Have any games decreased or increased in popularity over time? 4.) How have their sales figures varied between geographic regions over time?

A videogames sales **data** set from VGChartz. The analysis was carried out using pivot tables and visualizations in **Excel**. The **approach** can be summarized according to following: Data cleaning → Grouping, summarizing and filtering data → Visualizations and descriptive analysis (charts)



The main finding is that the current way to allocate marketing budget only based on Net Sales is not good enough. Due to the fact that the popularity of games and genres differ between markets, and that some markets have a platform / publisher that is leading, the marketing budget should also consider these different factors.

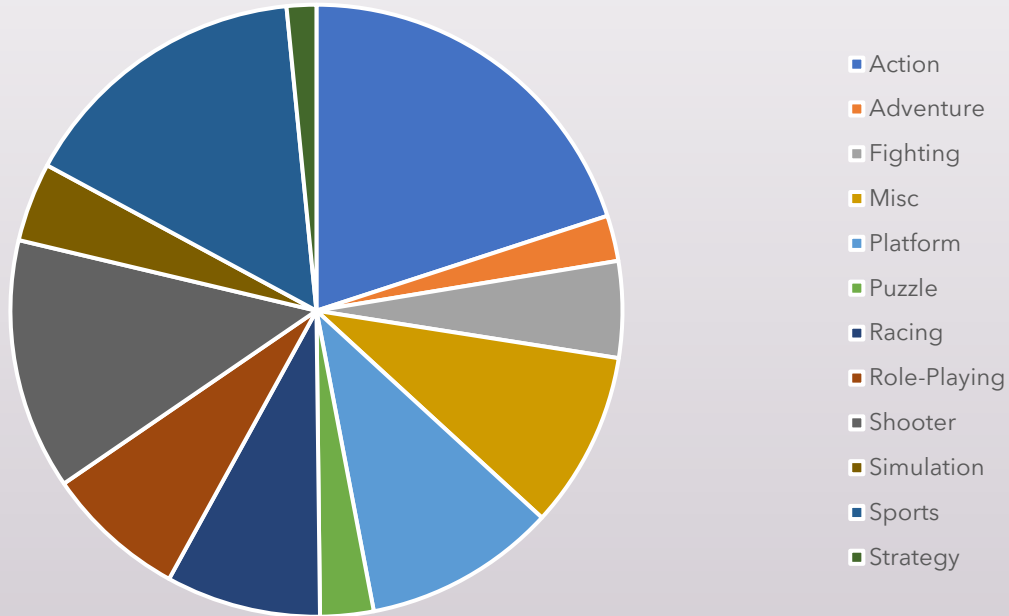
Current situation



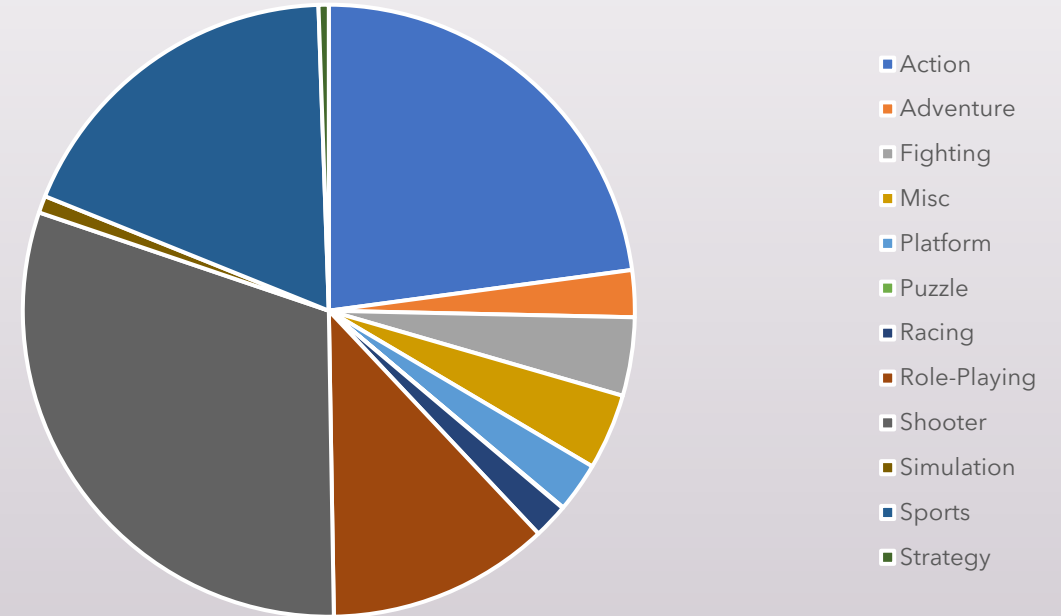
The first graph shows that North American, EU and Japanese sales follow the same trends, even if the curve is flatter in Japan. The EU sales peaked in 2015 (measured in millions of sold games), but 2016 a big decrease in sales occurred. This affected all markets, even if the North American market received the biggest portion of the marketing budget.

Analysis per genre

Sales per genre 1980 - 2020



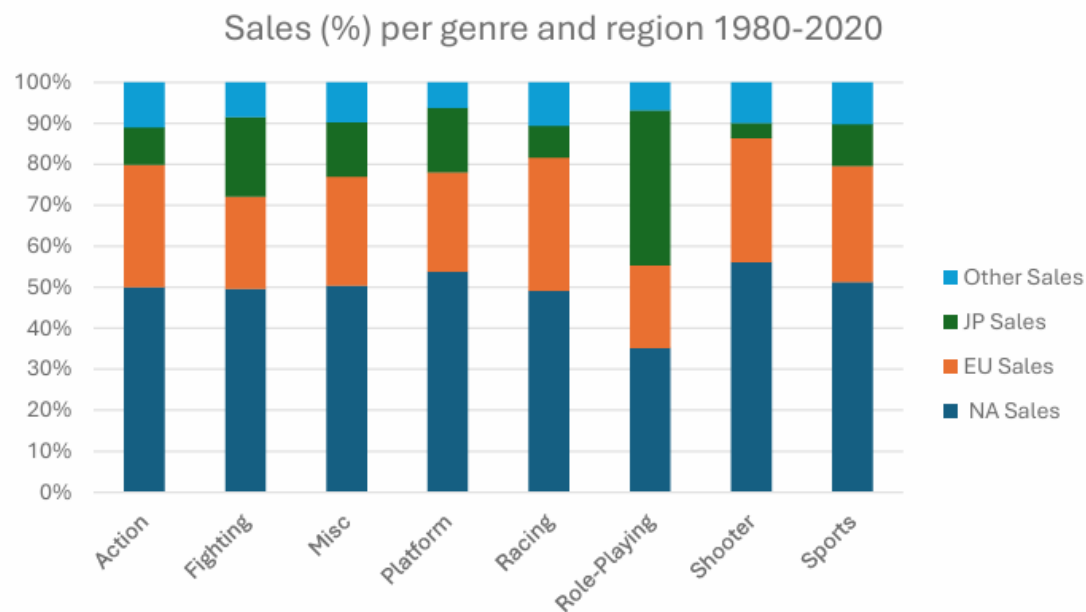
Sales per genre 2015 - 2016



A deeper analysis shows that there are changes in sales before and after the decrease in sales when we divide the games per genre:

- The Shooter, Action and Role playing games have increased in popularity.
- Puzzle games have almost disappeared and are no longer sold as much as before.
- Sales of Fighting and Simulation games has decreased.

Genre and platform

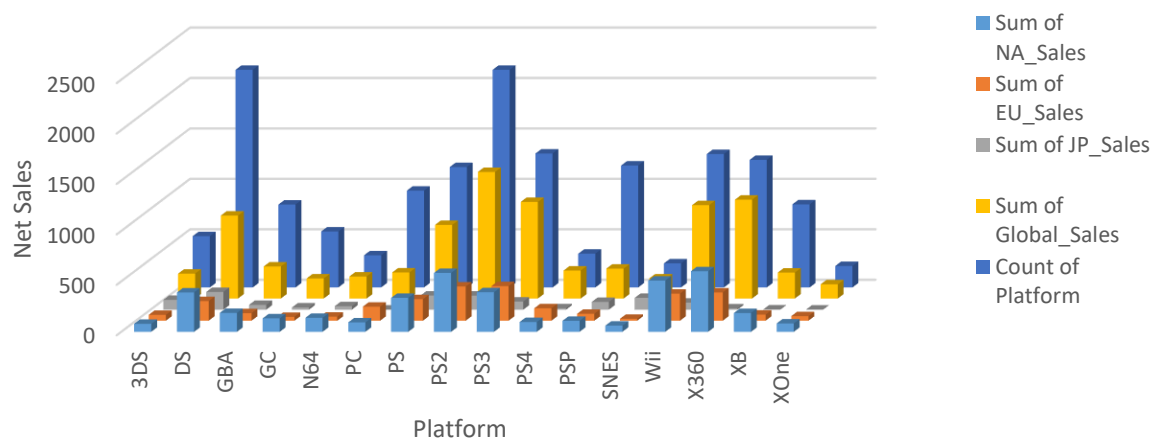


The Japanese market shows the biggest interest for role playing games, and the least interest for shooting games.

In North America, shooting games are more popular than in other markets.

Europe has a preference for action and racing games.

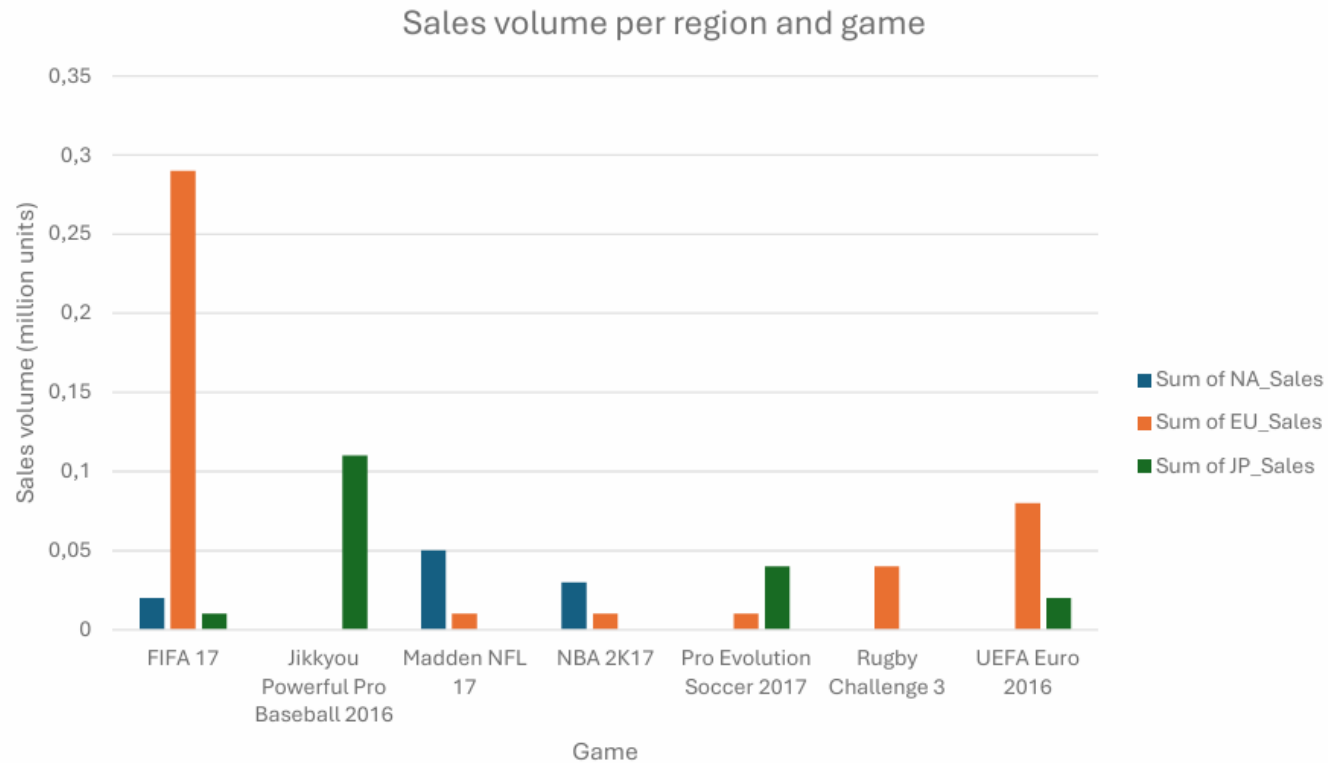
Sales figures compared to usage of platform



The platform that gamers prefer also influence on the sales of games. A game that is developed for a common platform has more chance of increase its sales figures.

Wii, X360 and PS are the most common platforms in North America. DS and PS are popular in Japan. In EU PS2, PS3 and X360 are used most commonly.

Game



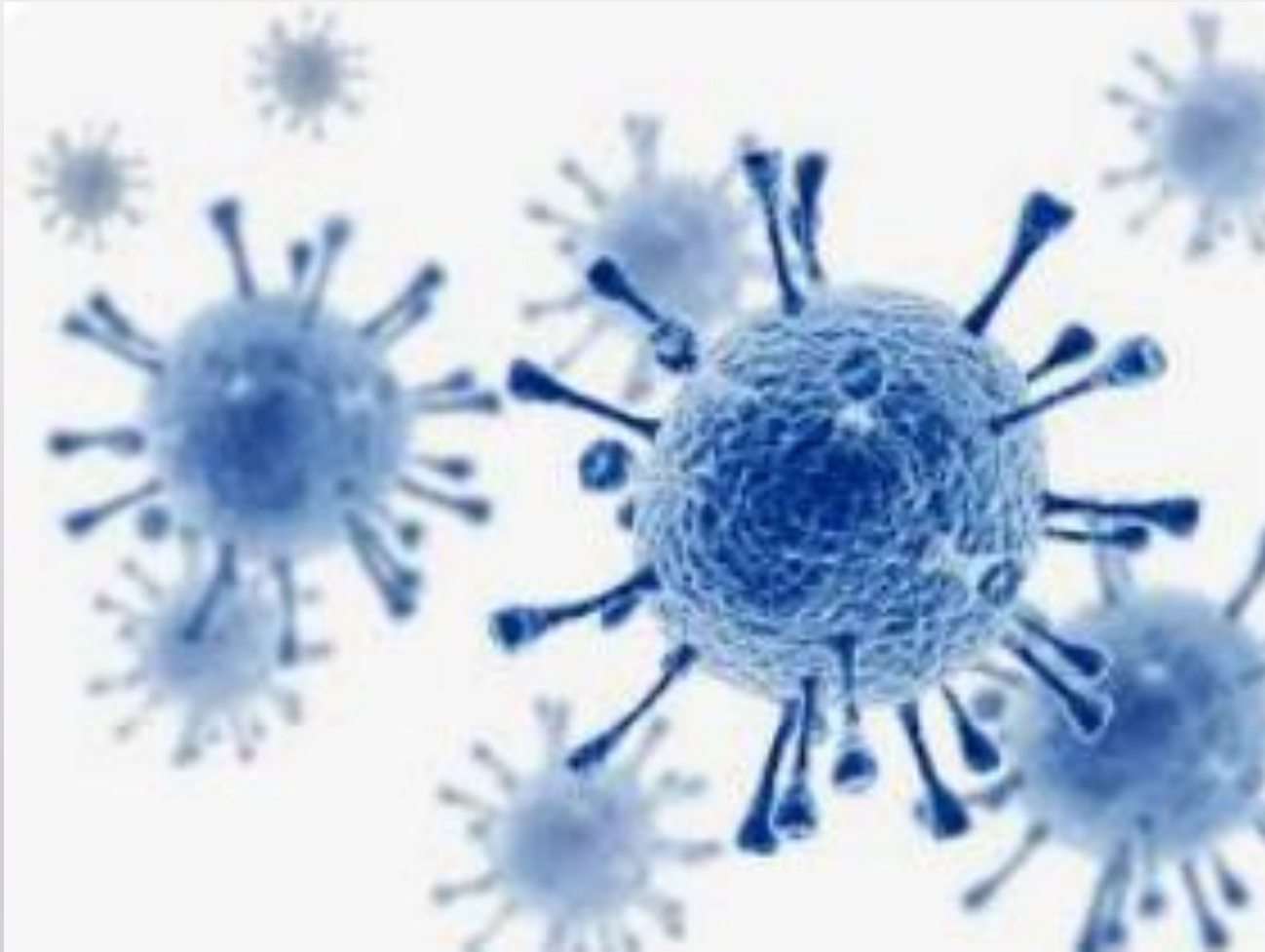
One interesting aspect is that the popularity of different games, for example the UEFA Euro 2016 and FIFA 17 in Europe could be a result of that sports events took place in a year, which resulted in increased sales that year.

Conclusions

- The sales of games is influenced by all factors that were analyzed: Region, genre, platform and game.
- North America had the biggest decline in sales despite being the market that received the highest budget.

Key question:	Result of analysis:
Are certain types of games more popular than others?	Sports games are more popular in Europe, but less popular in Japan and North America. Shooter games are more popular in North America than in the other markets. Role-playing games are preferred in Japan.
What other publishers will likely be the main competitors in certain markets?	DS is the biggest competitor in the Japanese market where also PS games sell. Wii, X360 and PS games are biggest in Europe and North America, and they are competing over the biggest market share.
Have any games decreased or increased in popularity over time?	Shooting, Action and Role playing games have increased in popularity. Puzzle games have almost disappeared from the market, and sales of Fighting and Simulation games has decreased.
How have their sales figures varied between geographic regions over time?	

Influenza season



Influenza season - Overview

Context

In the U.S. More people than usual suffer from the flu. During influenza season the demand for additional staff depend on the amount of patients with flu symptoms that seek medical attention. A medical staffing agency needs assistance with allocating resources on an as-needed basis during this time to cover for the extra need.



Determine when to send staff and how many to each State.

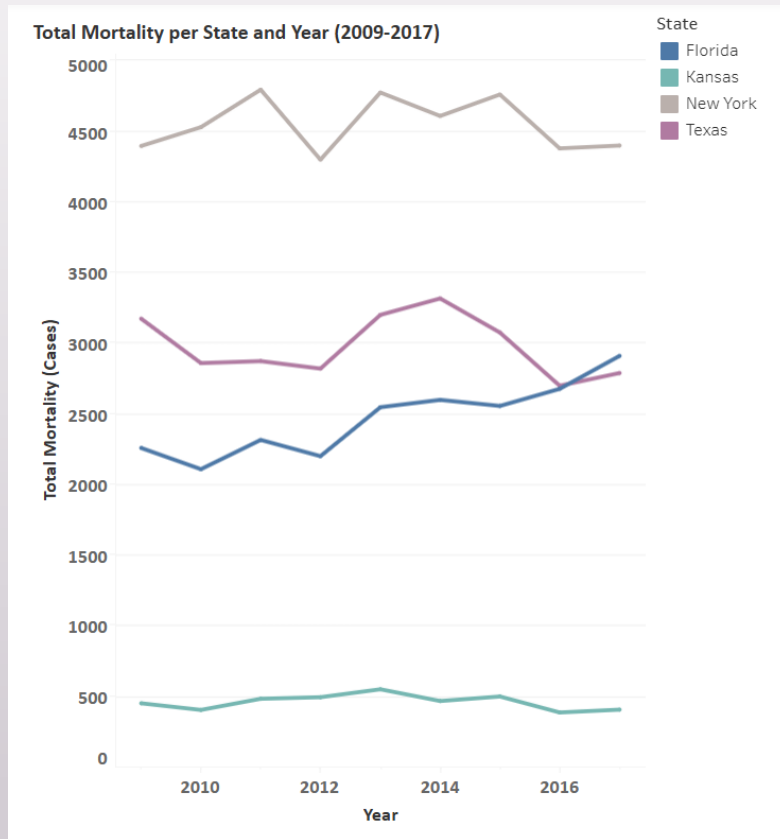
Data from US Census Bureau (Population data by geography, time, age and gender) and CDC (Influenza deaths by geography). The data was cleaned in the first step and subsequently merged into one file with VLOOKUP. Age groups were properly mapped in order to enable a merge. Tableau was used to create forecasting, geospatial analysis and bar charts.



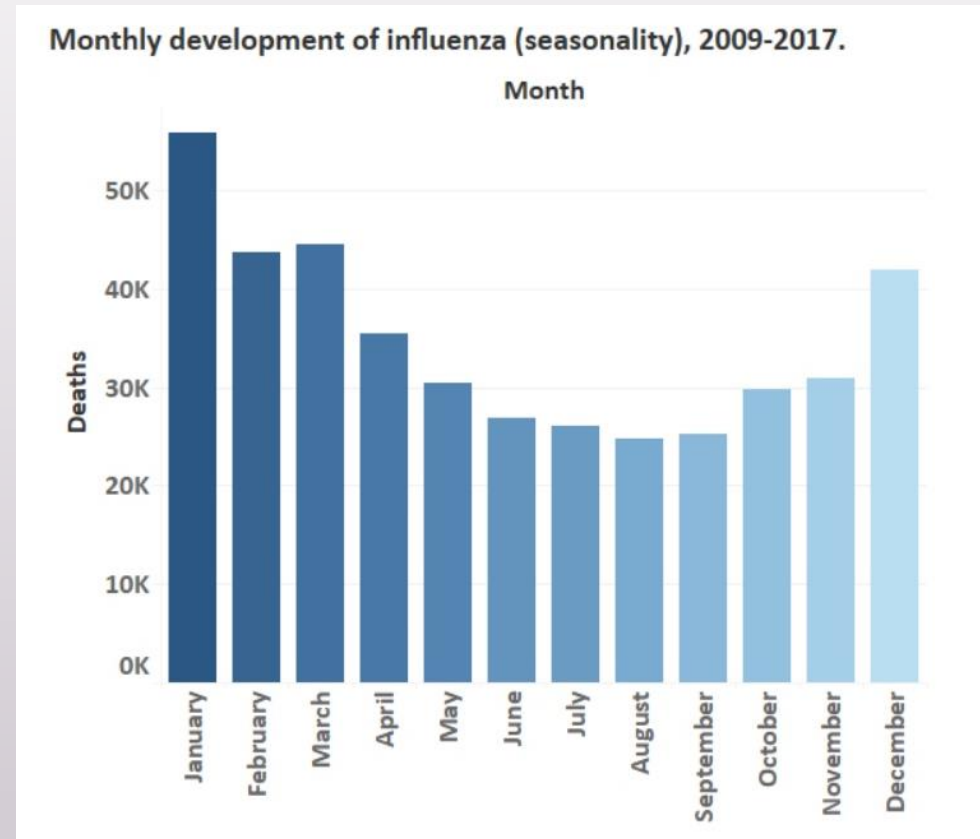
The hypothesis that was tested was following: „If a States’ population is old (belong to an old age group), then this results in **higher mortality** of influenza in that State and higher demand of medical resources.” With a 95 % confidence interval the null hypothesis was rejected, hence the hypothesis proved to be true.

The result shows **when, where** and **how many** resources should be allocated. One unexpected finding was that due to that the population was older, the distribution of medical resources had to be done differently. Seniors more often end up in hospitals, as a result, more resources were needed in hospitals.

When to send staff

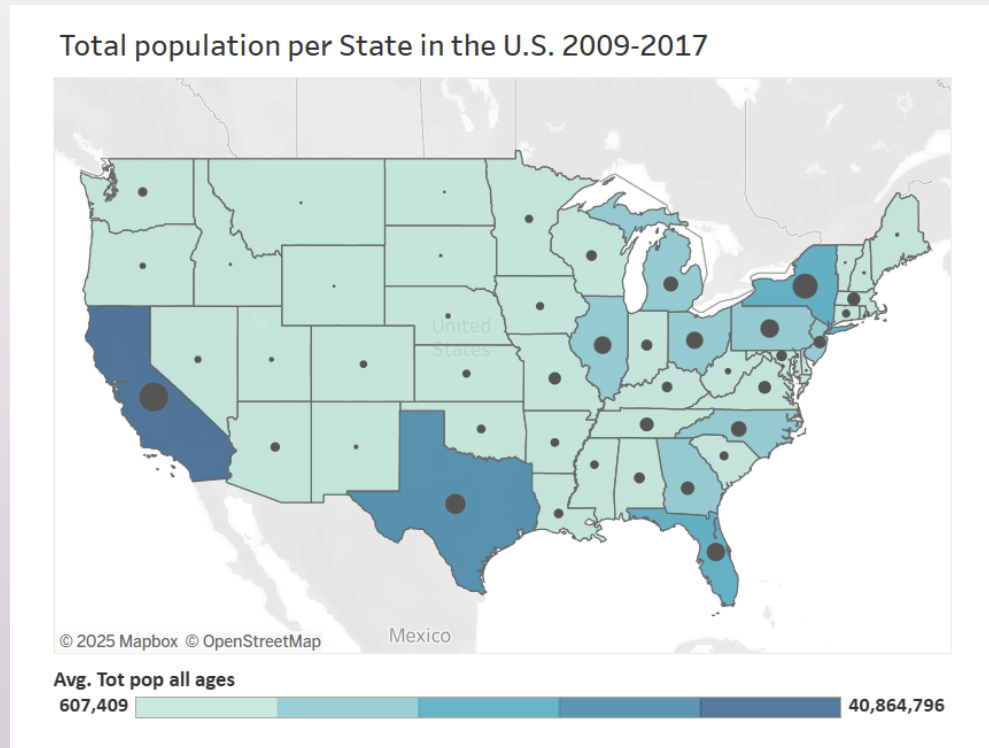


The prediction shows the possible outcome for influenza mortality for 2018. This is what has to be planned for! Influenza cases differ per State and over time.



Influenza cases start increasing in September/October, **peaks in January** and do not go back to normal levels until May/June. This has to be calculated for during resource planning.

Where to send staff

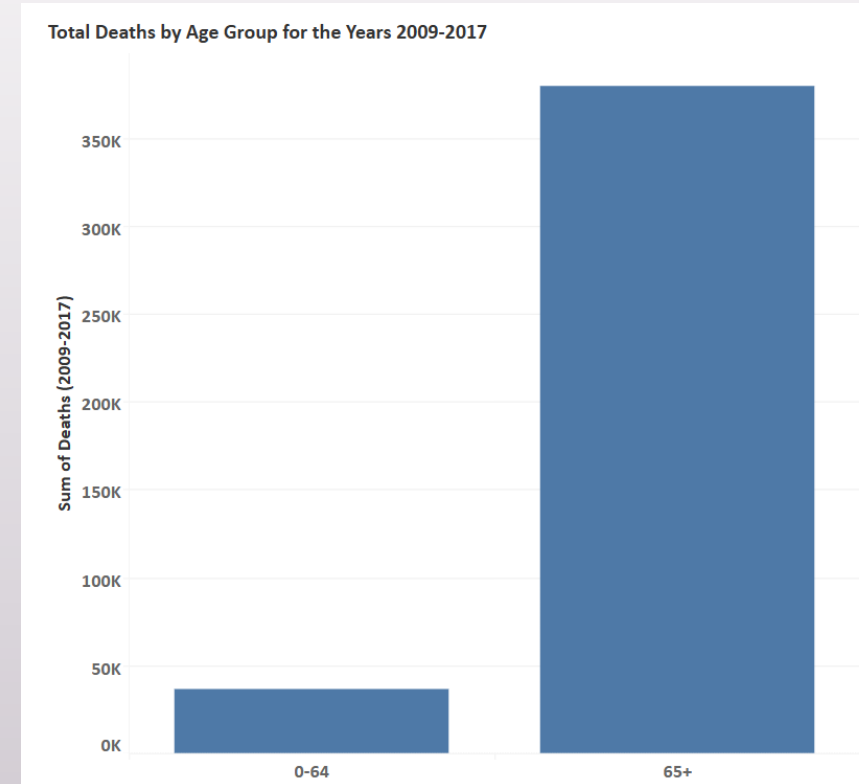


The States are divided in 3 groups: High-, Medium- and Low level of staffing need:

High: California, Texas, Florida, New York.

Medium: Illinois, Ohio, Michigan, Pennsylvania, New Jersey, Maryland, Washington etc.

Low: Montana, Wyoming, Idaho etc.



If the State has a high proportion of 65+ population, the medical staff should be allocated to **hospitals** as opposed to health centres, since Seniors more often end up in hospitals.

How many?

Total number of influenza patients

REGION	Influenza patients
New York City	921 095
Virginia	783 803
Louisiana	516 271
Texas	503 339
Georgia	444 680
Illinois	406 839
California	400 502
Mississippi	265 221
Alabama	240 997
North Carolina	182 917
Pennsylvania	168 500
Massachusetts	164 710
Arizona	160 708
New Jersey	157 555
Utah	142 589
New York	133 037
Colorado	120 450
New Mexico	114 621
Michigan	106 050
West Virginia	83 569

In order to determine the number of medical resources that should be sent to what state, the „staff to patient ratio” will be used. This will also reduce the risk for under- and overstaffing.

Allocation:

$(\text{Current staff} + \text{extra staff}) / \text{Influenza Patients} \Rightarrow 0,9$, AND

$(\text{Current staff} + \text{extra staff}) / \text{Influenza Patients} \leq 1,1$

Recommendations and reflections

The number of existing resources in each State and medical institution has to be calculated for when determining the staffing need. This data was not available when carrying out this analysis.

Conclusions

When?

Resources should be allocated starting from end **September to May/June**. The peak is in January.

Where?

Resources should be allocated to primarily **hospitals** according to following classification:

- High staffing need: California, Texas, Florida and New York for example.
- Medium staffing need: Illinois, Ohio, Michigan, Pennsylvania and New Jersey amongst others.
- Low staffing need: Montana, Wyoming and Idaho.

How many?

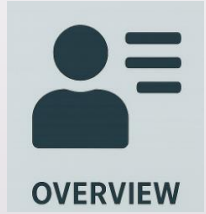
Use the "Staff to Patient ratio" to calculate the staffing need.

Rockbuster Stealth



Project Overview - Rockbuster Stealth

Rockbuster Stealth LLC is a movie rental company that used to have stores around the world. Facing stiff competition from streaming services such as Netflix and Amazon Prime, the Rockbuster Stealth management team is planning to launch an online video rental service in order to stay competitive. The data analysis will serve for defining a strategy of the launch of the online service.



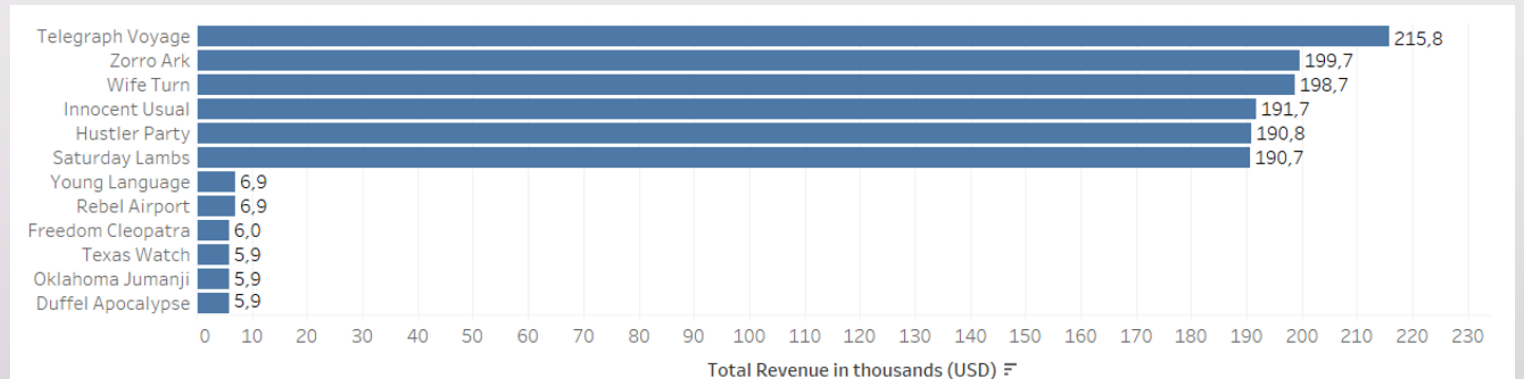
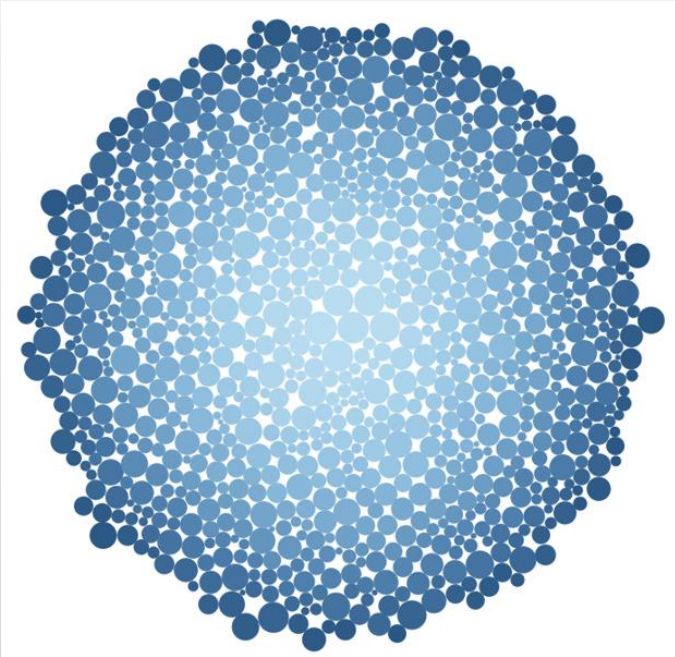
To analyze data and provide recommendations for Rockbusters future investment in online sales. The aim is to investigate which movies contribute most and least to revenue gain, what the average rental duration is, which countries the customers are based in respectively where the high-value customers are based, and investigate if sales figures vary between regions.

The Rockbuster data set was used for this analysis. It contains information about film inventory, customers and payments amongst other things.



A lot of movies contribute to the sales, but there are "high performers". The mean rental duration is five days. Sales differ between regions, with the biggest customer base in Asia.

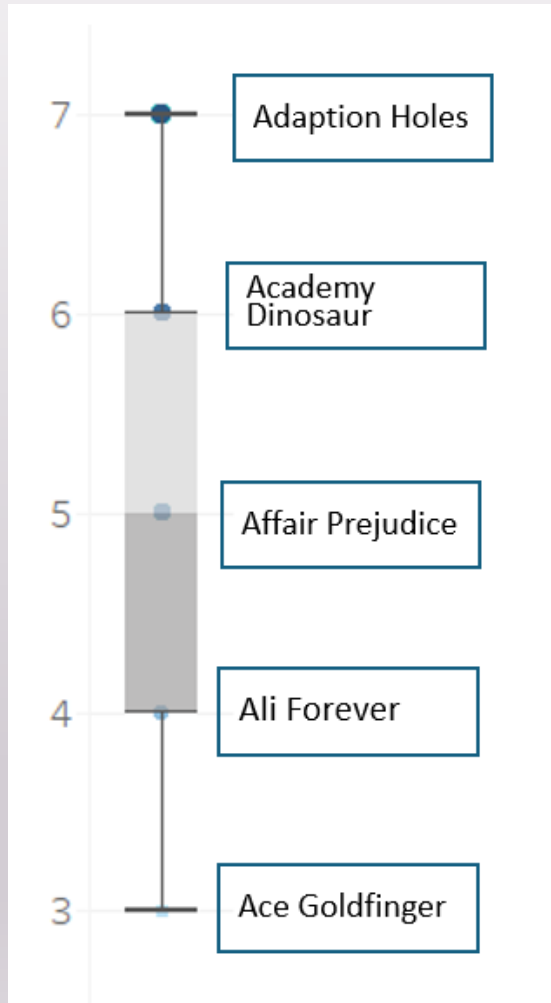
Revenues



The scatter plot shows that the total revenue of 61.312.000 USD is spread amongst a lot of movies. The bar chart shows the six most profitable and the six least profitable movies at Rockbuster.

The six most profitable movies stand for 1,9 % of the Total Revenue, meanwhile the six least profitable movies above only make up to 0,06 % of Total Revenue.

What is the average movie rental duration?

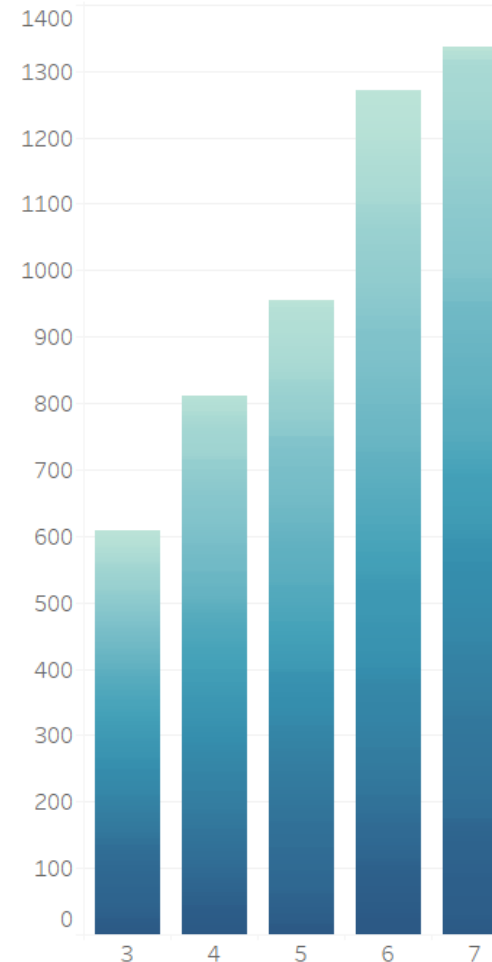


An analysis of all movie rental durations reveals that the **mean rental duration is 5 days**, with a minimum rental duration of 3 days and maximum 7 days.

Adaption Holes is for example a movie that is more often rented for a longer time.

Do people prefer to rent movies longer or shorter time?

Movies with different rental duration



The frequency diagram shows that most movies are rented for a longer time than the mean.

600 movie titles were rented for between 3 and 4 days, while as many as 1.300 movies were rented for between 6 and 7 days, so people prefer to rent the movies for a longer time.

Where are customers based?



Most customers reside in India and China, followed by the United States.

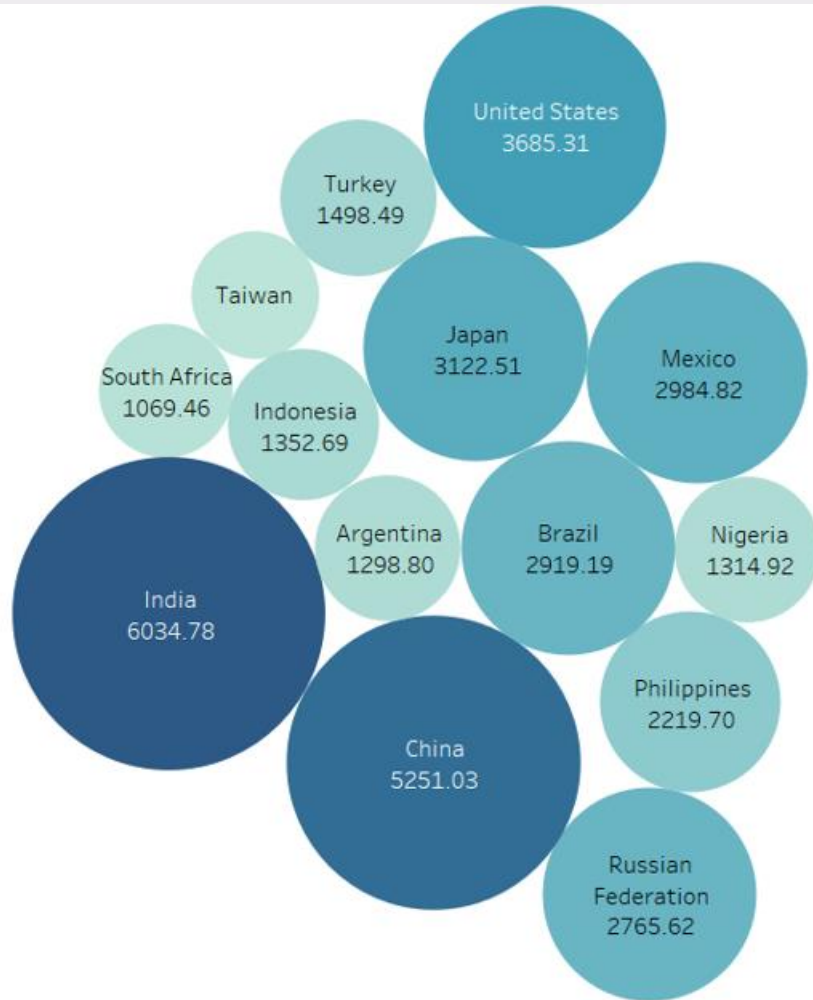


First name	Last name	Country, City	Amount spent
Arlene	Harvey	India, Ambattur	111,76 \$
Kyle	Spurlock	China, Shanwei	109,71 \$
Marlene	Welch	Japan, Iwaki	106,77 \$
Glen	Talbert	Mexico, Acua	100,77 \$
Clinton	Buford	US, Aurora	98,76 \$

The map shows the location of the **top five customers** from the top ten cities, who paid the highest amounts to Rockbuster. Further details are placed in the table.

Three of the top customers are based in Asia.

Do sales differ between regions?



Sales volume in amounts paid are demonstrated by the size of the circle.

Yes! Sales vary between geographic regions.

The highest sales is achieved in countries where most customers reside.

Key findings and conclusions

Key findings:

- The "spread" of earning per movie is large. The six most profitable movies earn 1,9 % of the Total Revenue for Rockbuster. The six least profitable movies stand for only 0,06 % of Total Revenue.
- The average rental duration is 5 days, with a minimum rental duration of 3 and maximum of 7 days.
- People prefer to rent movies for a longer time than the average rental duration.
- The largest customer base is located in Asia, where also 3 of the „Top 5“ customers reside.
- Sales volume differ between geographical regions.

Recommendations:

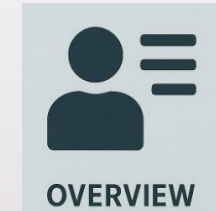
- Investigate if there is space to change the pricing so that more movies are rented for a longer time. Would earnings increase if a discount is provided for longer movie rentals?
- Make further analysis to see if the Asian market can be further developed. What makes the customer subscribe for Rockbuster? Are there any movies that sell more in Asia?
- Analyze subscriptions per geographic area and understand the coverage and how it is related to number of inhabitants. Is there a market where Rockbuster can increase market share?

Instacart Grocery Basket



Instacart Grocery Basket – Project summary

Instacart is an online grocery that operates through an app. The online grocery stores management team ordered an analysis of the shops sales patterns. The task was to perform an initial data and exploratory analysis of some of their data in order to derive insights and suggest strategies for better segmentation.



To answer a set of key questions:

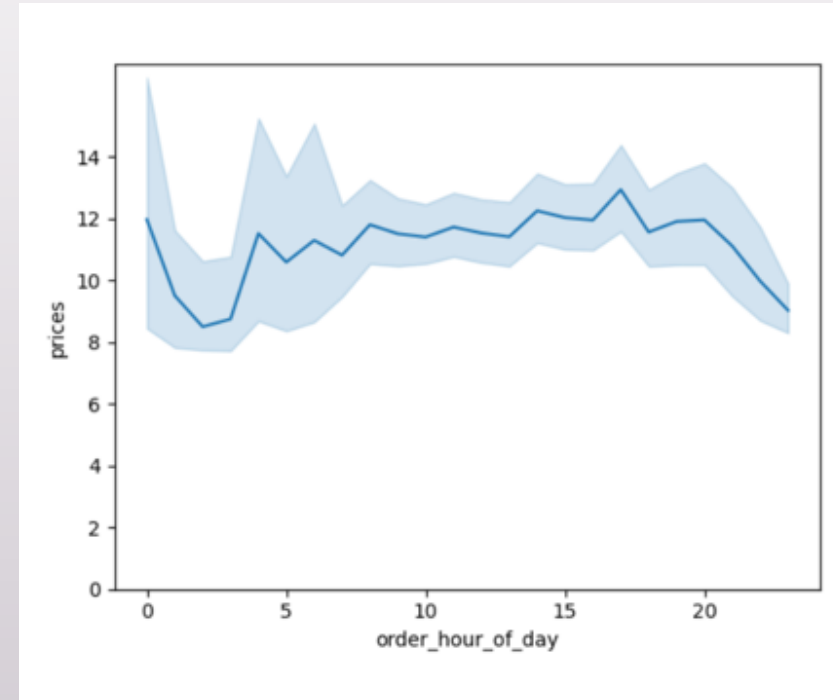
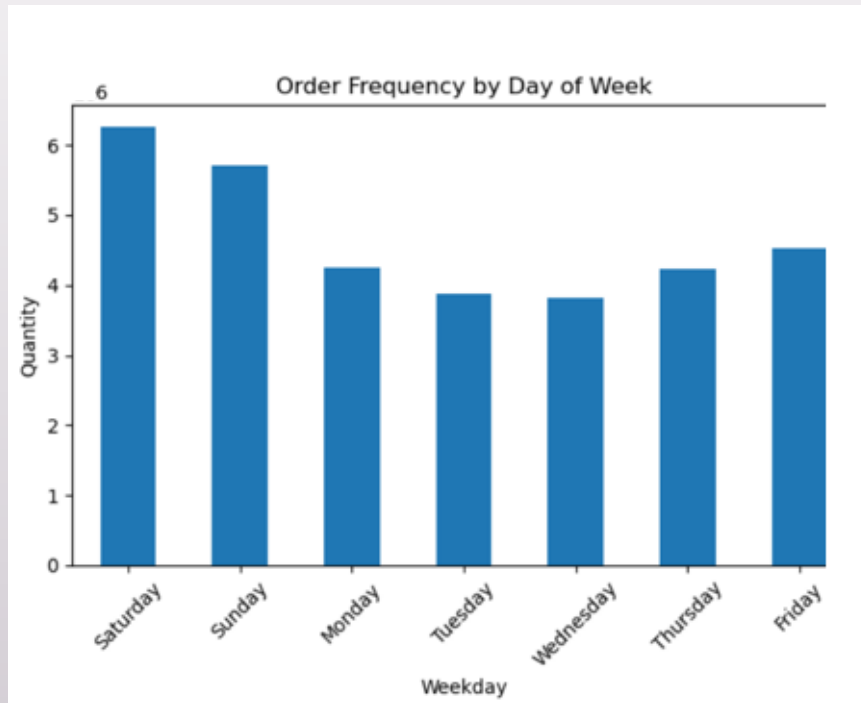
1. What are the busiest times of the day and when do customers spend most money?
2. Are certain products more popular than others, and can they be ordered in different price ranges?
3. Are there differences in ordering habits amongst customer profiles, and what do customers purchase most?

A customers data set from Careerfoundry was used (Instacart online grocery shopping data set 2017). Data wrangling, subsetting and merging, data consistency checks, grouping and aggregating data, deriving new variables, data visualization with Python (Jupyter Notebook, Anaconda), reporting with Excel.



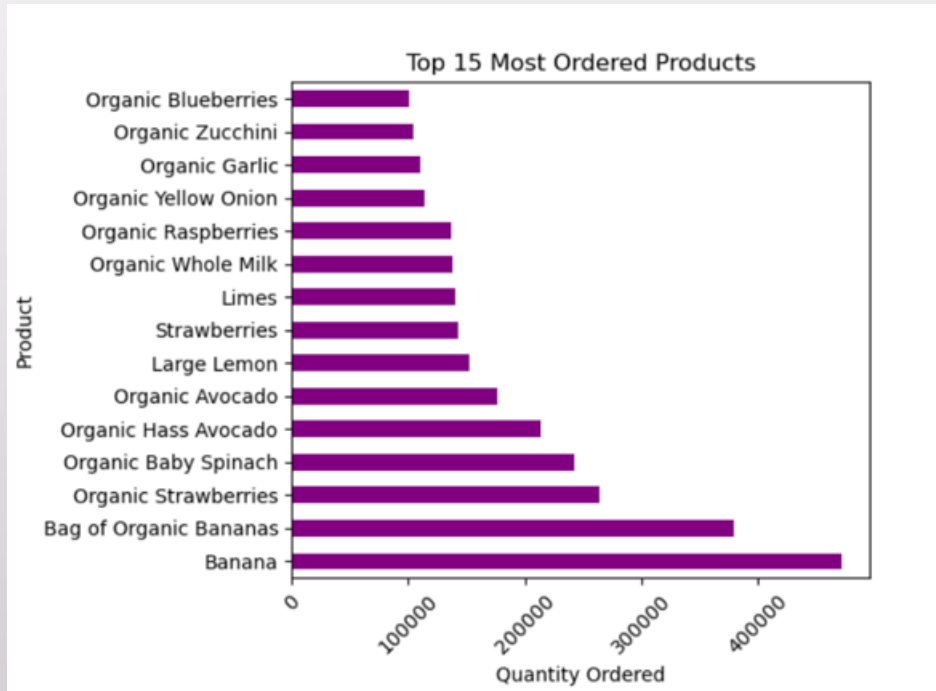
The result is a detailed analysis of customers spending patterns that provides answers to the questions above.

Busiest times



The busiest days in the week are weekends (Friday to Sunday). Peak ordering times are between 9 and 16 during the day.

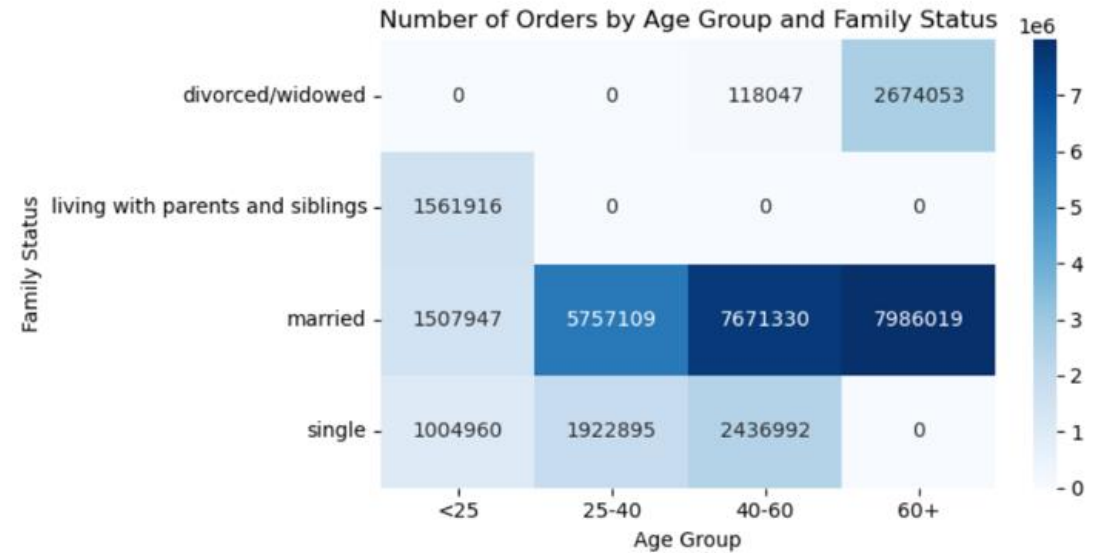
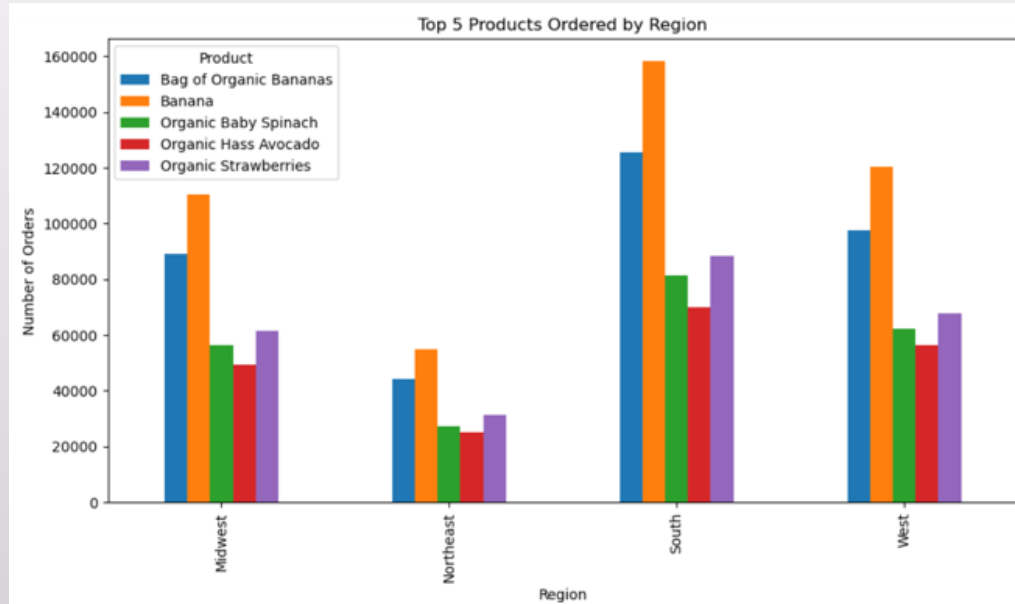
Product popularity and ordering habits



The most popular products to order are bananas (organic and not), organic strawberries, organic baby spinach, organic hass avocado and organic avocado. A separate analysis shows that all top 15 products belong to the Mid-range or Low-range priced products.

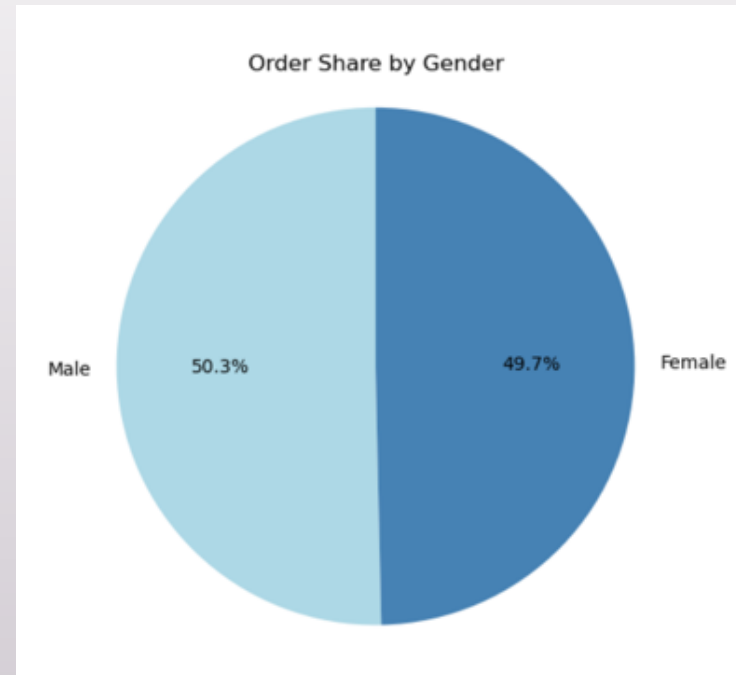
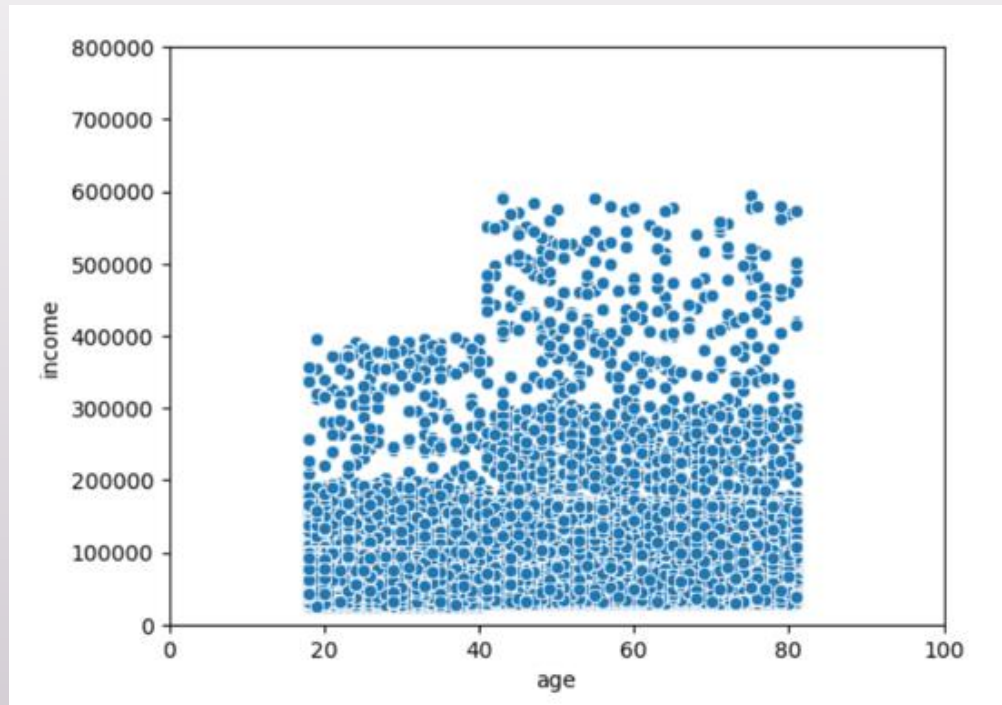
Customers mostly reorder products that they have bought, but there are also products that are not being reordered. Instacart customers are mostly High spenders.

Ordering habits



Ordering habits differ between regions, age groups and family status.

Income and gender



The age group 40-80 years earn the most, hence spend the most. No differences were found when it comes to ordering habits between genders. Men and women tend to order equally regarding amount and also when it comes to alimentaries.

Conclusions



When do people spend most money?

Between 9 and 16 during weekends (Friday – Sunday).



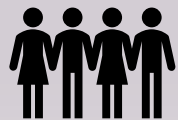
What products are most frequently ordered?

Bananas, strawberries, spinach and avocado. They are classified as low- and mid-range products. This indicates that there is room for price adjustments.



What are customers reordering habits and profile?

Mostly high spenders order online from Instacart. The reordering frequency is high but can be improved. One suggestion is to analyze what products are not being reordered.



What influences ordering habits?

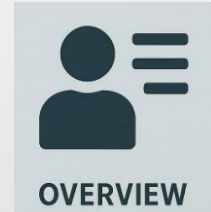
Ordering habits differ between regions, age, family status and income. No differences in ordering habits of groceries were found between genders.

World Happiness Report



World Happiness Report – Project summary

The World Happiness Report is the world's foremost publication on global wellbeing and how to improve it. Wellbeing data from over 140 countries is being combined with high-quality analysis by world-leading researchers from a wide range of academic disciplines. By making the essential insights from wellbeing science accessible to all, the publisher's goal is to give everyone the knowledge to create more happiness for themselves and others.



OBJECTIVE

The goal of this analysis is to present different key factors that all have more or less impact on the level of happiness in different countries, and understand the difference between countries that achieve the highest happiness scores, versus countries that achieve the lowest happiness score.

World Happiness Report 2024, World Happiness Reports 2015-2019, world countries geospatial file (world-countries.json). Data preparation included checking the data consistency in Jupyter Lab and if the file included missing values. Some columns appeared twice, so I merged columns in order to make one column out of it. Renaming of columns was necessary since headers differ between the files.



RESULTS

The result is a ranking of how much different factors influence happiness amongst countries. The analysis also gives an overview of what countries are ranked happiest and less happy. The time series analysis was not so relevant for this kind of data since each data file per year includes an average for the last three years. Since the data is non stationary, it is more suitable to look at the trend over years for specific countries.

World Happiness Report - Introduction

Data

World Happiness Report 2024, World Happiness Reports 2015-2019, world countries geospatial file (world-countries.json). Data preparation included checking the data consistency in Jupyter Lab and if the file included missing values. Some columns appeared twice, so I merged columns in order to make one column out of it.

Tools

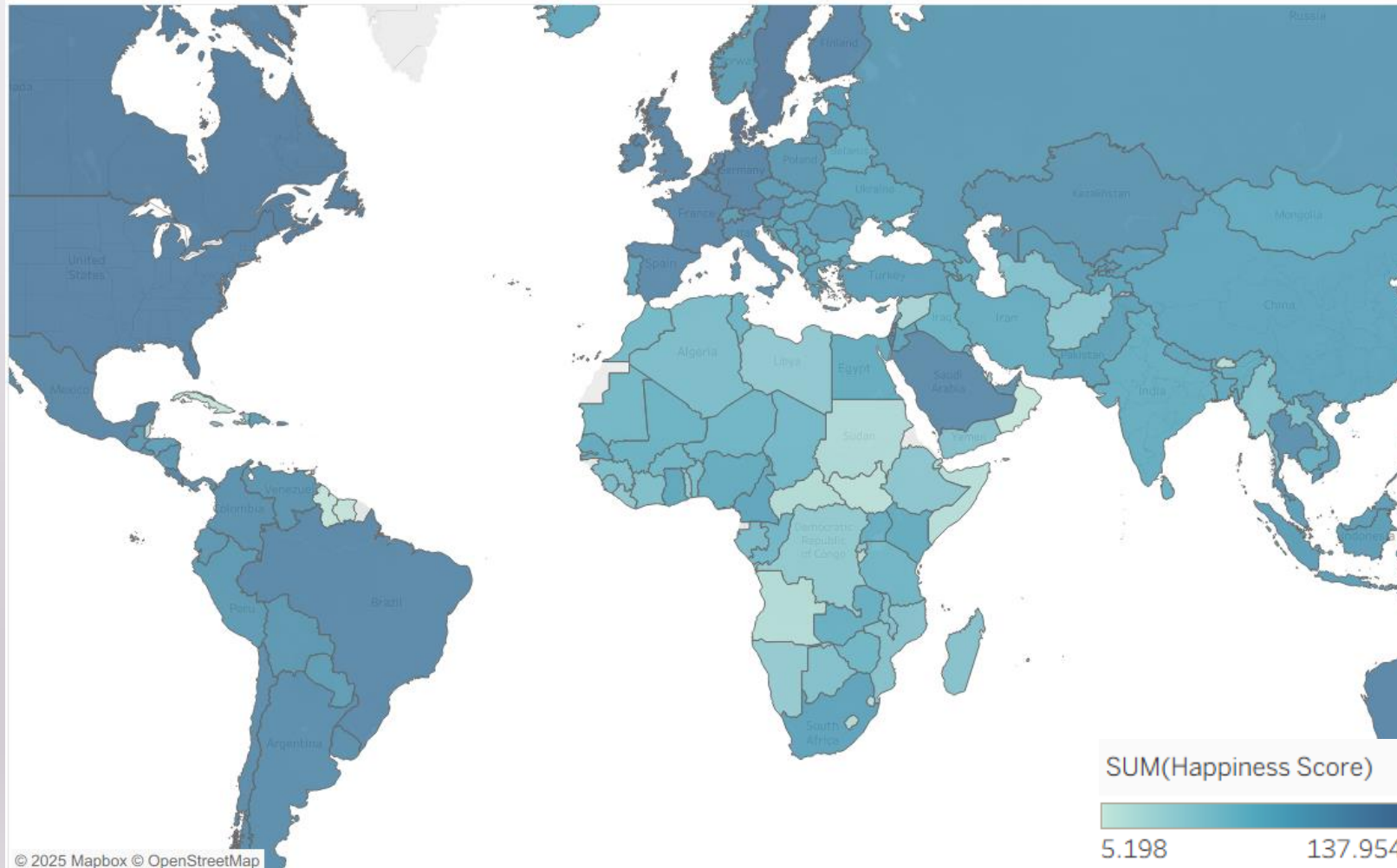
Excel (.csv), Tableau and Jupyter Lab (Python).

Approach

Data cleaning and merging in Jupyter Lab (Python), dropping of NaN values, visualizations in Tableau. The time series analysis was not so relevant for this kind of data since each data file per year includes an average for the last three years. Since the data is non stationary, it is more suitable to look at the trend over years for specific countries.

World happiness status 2024

World Happiness Score 2024



The world map shows that Europe, North America, South America and Saudi Arabia seem to have a population that is very happy.

On the other hand, people in Africa and India for example are less happy.

What factors influence happiness in different countries?

How is happiness measured?

Freedom to make life choices: The national average of responses to the question about satisfaction with freedom to choose what to do with one's life.

Family support: If a person have relatives or friends to count on in times of trouble (yes/no question).

Life expectancy: The average number of years a newborn infant would live in good health, based on mortality rates and life expectancy at different ages.

Negative affect: If respondents felt emotions like worry, sadness or anger „during the day of yesterday”.



GDP per capita: Average income per person in a country adjusted for differences in the cost of living between countries.

Happiness Score: The happiness score for each country is based on responses to the Cantril Ladder that asks respondents to think of a ladder, with the best possible life for them being 10, and the worst possible life being a 0.

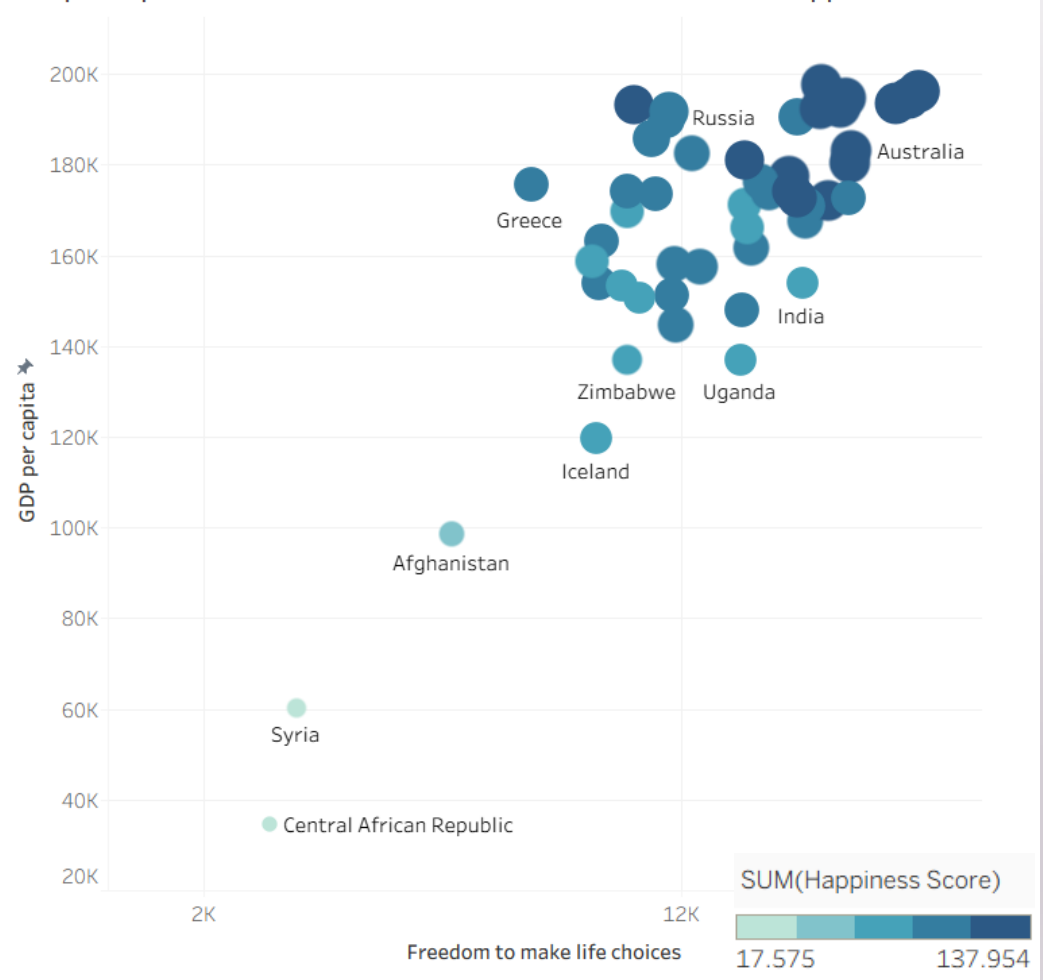
Positive affect: If respondents felt emotions like laughter, enjoyment and doing interesting things „during the day of yesterday”.

Generosity: The average of responses to the question about donating money to charity on GDP per capita.

Trust: Presence of perceived extent of corruption in the government and business.

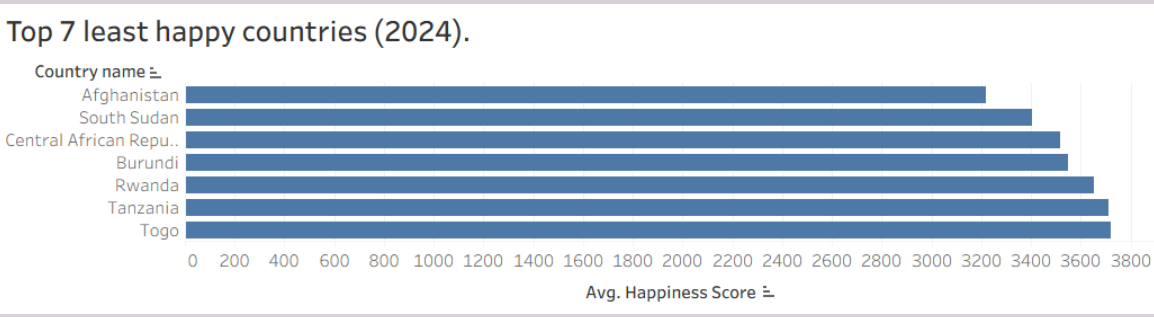
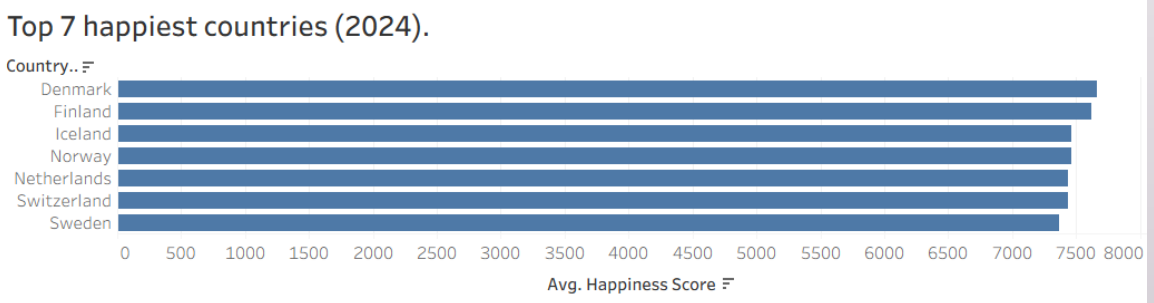
Ranking of countries

GDP per capita and freedom to make life choices influence on happiness.



GDP per capita and freedom to make life choices both have a strong impact on happiness. Countries in dark blue are ranked most happy, and they all have a high GDP per capita and high level of freedom to make life choices.

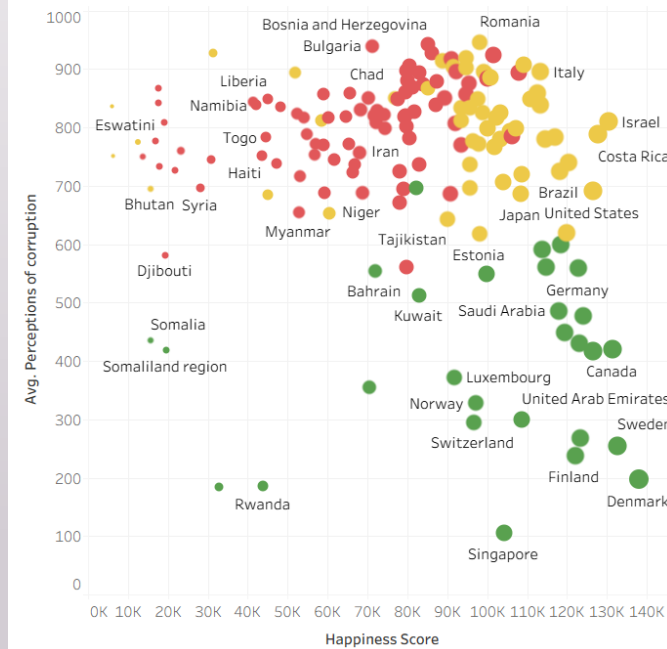
Below charts show the happiest and least happy countries, which receive high- and low scores on above factors.



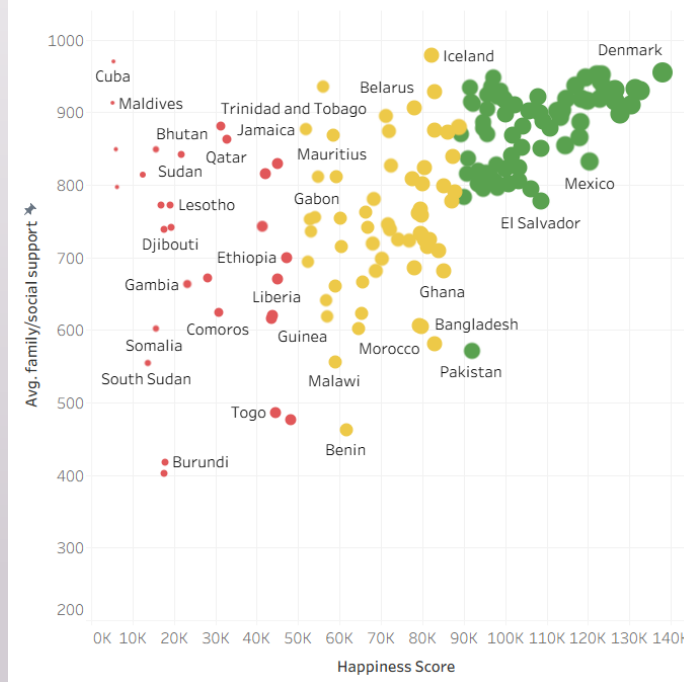
Other factors influencing happiness

In order to easily compare countries with the rest of the factors that influence on happiness, they were divided into clusters depending on happiness score. The most happy countries are the ones in green and the least happy countries are the ones that are marked with red. All countries in between are yellow.

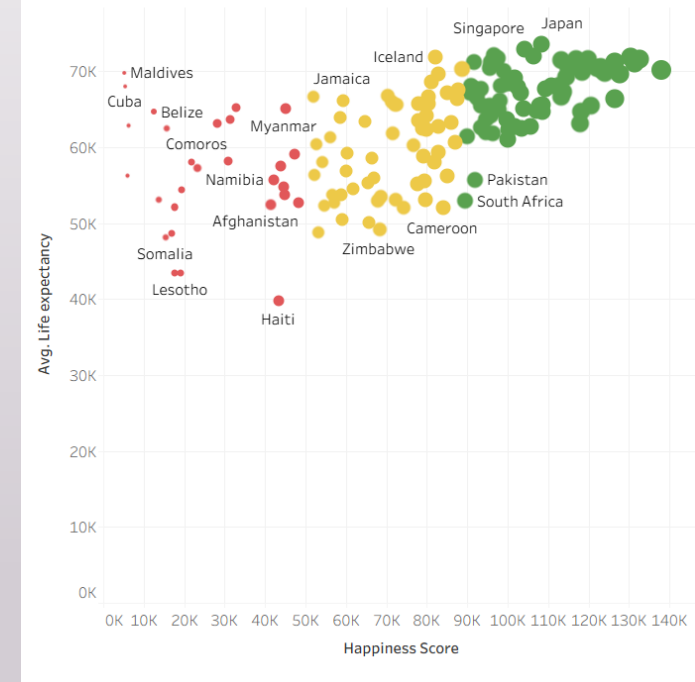
Perceptions of corruption in relation to Happiness Score (2024).



Social support in relation to Happiness Score (2024).



Life expectancy in relation to Happiness Score (2024).

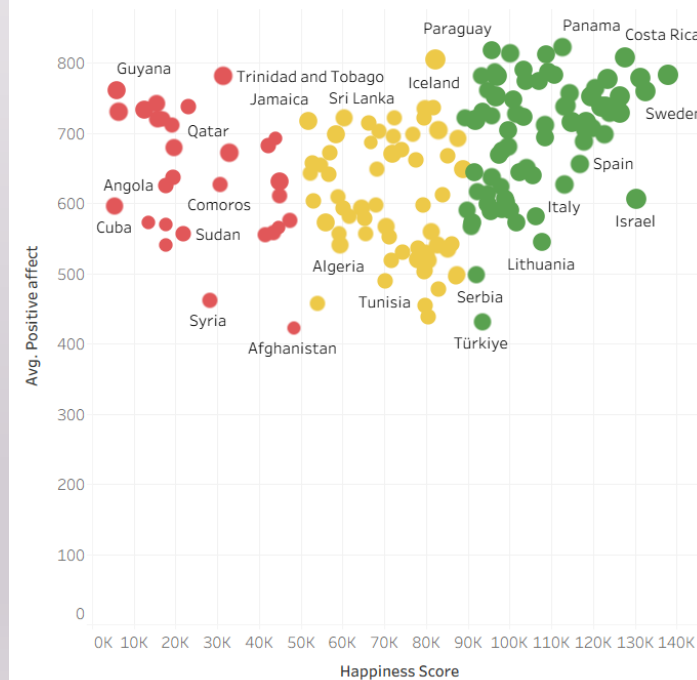


Happier countries have a lower perception of corruption, greater support from family and friends and they live longer. However, the plot in the middle is a bit more scattered and even if support is lower sometimes, happiness is achieved.

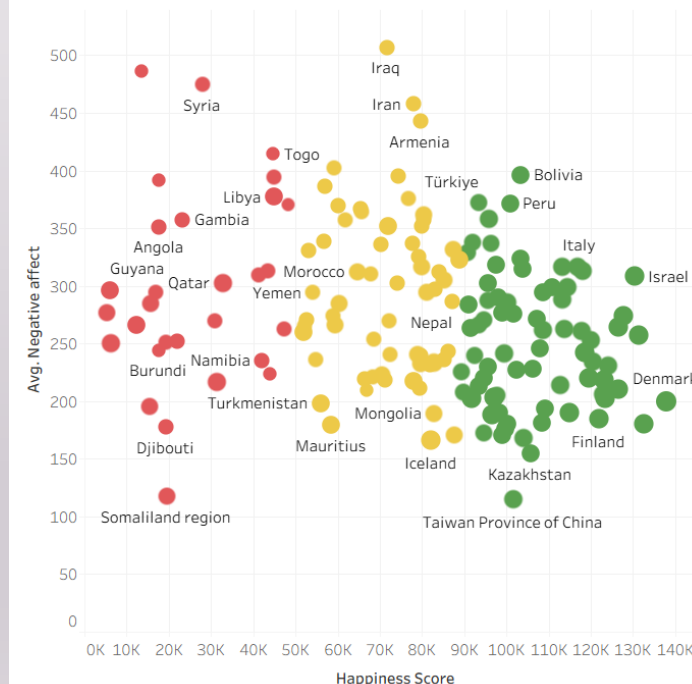
Other factors influencing happiness.

Countries with high happiness scores tend to laugh, enjoy and do things that they like a little bit more, but the scatter plots shows that these positive feelings are present in all other countries as well. The same goes the other way around. People in all countries experience negative feelings, so there is no clear relationship between happiness score and positive or negative feelings. The last scatter plot shows that countries with a higher happiness score tend to be more generous.

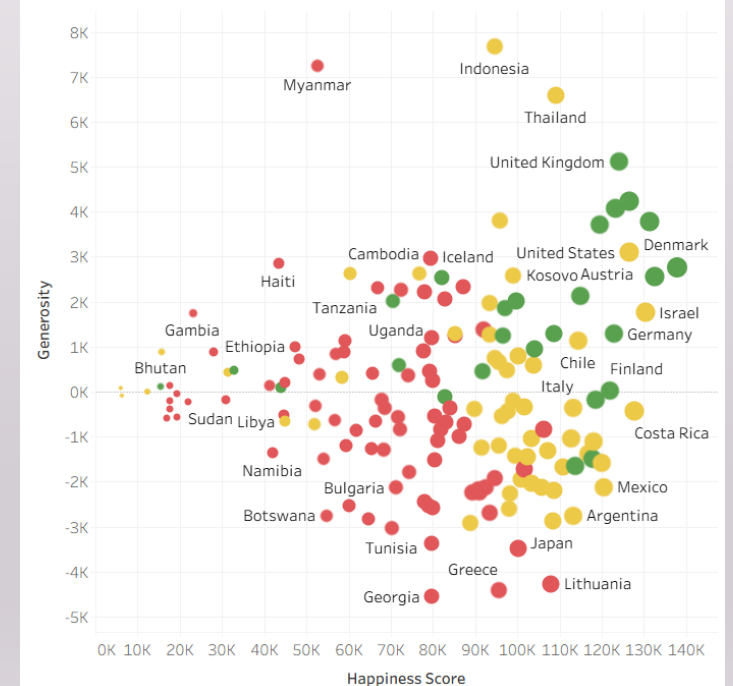
Positive affect compared to Happiness Score (2024).



Negative affect compared to Happiness Score (2024).

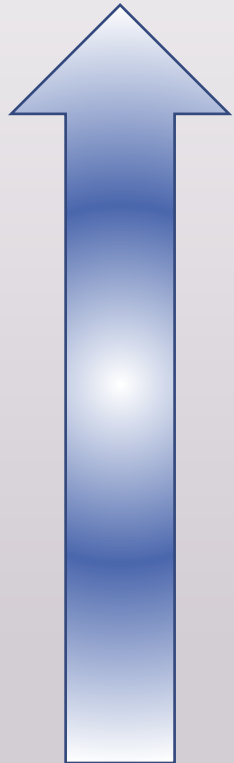


Generosity in relation to Happiness Score (2024).



Conclusions

High importance



1. GDP per capita, freedom to make own choices.
2. Lower perception of corruption.
3. High life expectancy.
4. Support from family and friends.
5. Generosity.
6. Positive affect.
7. Negative affect.

Low importance

The factors are ranked manually as a result of the different analyses. GDP per capita and freedom to make own life choices seem to be the most important factors for happiness. The perception of corruption is also important, probably because it influences the possibility to make life choices.

Support from family and/or friends is also an important factor, but it was not decisive.

Generosity is bigger in countries where the GDP is higher (higher happiness score), which could be caused by higher GDP.

What was good is that people in countries can feel both positive and negative feelings even if they achieved a low happiness score.

Links and contacts

Links to my projects:

Tableau

[Exercise 2-9 | Tableau Public](#)

[Exercise 6-7 Tableau Public](#)

Github

<https://github.com/susanne-maj>

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