



TECHNICAL UNIVERSITY OF DENMARK

ADVANCED BUSINESS ANALYTICS 42578

Analysis of Restaurants and Reviews in Copenhagen

Group ABAr

Student	1.Milestone	2.BQ_1	3.BQ_2	4.Web Scraping
s202027	3. Descriptive	x		
s192302	2. Scraper			x
s202026	3. Descriptive	x		
s192296	2. Datasets		x	

Executive Summary was written together by all group members

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Executive Summary

The main business question was “What are Customers Liking About Pizza Restaurants, where should a new Pizzeria be located and what needs to be kept in mind? The team analyzed the project as a consultant for a company that wanted to open Pizza Restaurant in Copenhagen. The company wanted to know what makes a popular pizza restaurant receiving great reviews stand out from the other places. In detail, the company wanted to know what customers were liking and dis-liking and where the best location for a new place would be. The relevant data needed for the business question was scraped from Tripadvisor. Further information regarding the scraper can be found under **1 - Milestone**.

Evaluating the review by text analysis gave great insights based on ratings and the most frequent words. However, the sentimental analysis gave better information about the content of the review. Combining these two methods gave a better insight into the problem. The conclusion drawn from the analysis in **2 - BQ 1 - Text analysis** is that, in order to operate a successful pizza restaurant based on the sentimental score, it is essential to serve excellent pizza, provide excellent service and friendly staff, and sell pizza at a reasonable price. Moreover, words that stood out for the positive reviews were “cold-fermented”, “beer”, and “calzones”. As a result, having a perfect cold-fermented pizza dough recipe is crucial when operating a pizza restaurant with excellent reviews. Additionally, provide good beers and calzones.

A broad market analysis was performed in **3 - BQ 2 - Market analysis** in order to gain a good understanding of the Pizza market. The results of the analysis show that the pizza market consists of much more than only Pizzerias. Half of the market consists of restaurants that serve pizzas without being Pizzerias. The market has been expanding until 2017 but has been in some decline the last few years. There are opportunities in the market now after COVID and the best area to open up a Pizzeria is estimated to be Vesterbro, because of the popularity of the area and relative lack of pizzerias. The client needs to make sure to distinguish themselves from other market players, by coming up with something unique to offer, either in food or experience.

Web Scraping tool was created in **4 - Web Scraping** to retrieve all the Tripadvisor data . To have the data on sufficiently good form and of a big enough magnitude many trial runs of the code had to be made to succeed. Deciding on what data to scrape and store was done carefully in the beginning. As so often happens when scraping web-pages many problems can arise, such as not storing information that can turn out to be really valuable or even necessary to continue the project. The changing HTML layout of web-pages or missing information can also cause trouble. There are certainly some improvements that can be made for the scraping code such as storing restaurant ID for all reviews. This would have given a better context of the true restaurant that was being reviews. Mainly restaurant chains were affected by this mistake.