**Memorandum**

DATE: February 9, 2021

TO: PizzaTernuva CEO

FROM: Anonymous Data Scientist

SUBJECT: Marketing Data Driven Decision

Market research and data collection are fundamentals to get a significant difference with the main competitor, Pepito’s Pizza. The most defined the client target is, the most revenue the company can get. Finding patterns in the client behaviour and preferences will impact directly in the knowledge of future decisions in relation with the company and the product. To achieve this there are two principal steps: collect data and analyze it.

**Data Collection**

The data source of this research should come principally from the clients. Through surveys we can obtain useful data. The key point to focus here is to ask about the age of the client, then we could bin our client target between age ranges. Also about their preferences in relation with the product, such us: what pizza do you like the most? Or, which kind of pizza you do not like? In this way we will obtain information to determine the popular type of pizza. Asking about their life status would be great, like what they are currently doing, if they are studying, working or another option. Finally, it is always good to know what they think about the price of the product in relation with the quality of it. This data is enough from the client to extract insightfuls from it.

Also, internally we should record all the sales considering different aspects. Among them the quantity of sales in each different product and all the variations. This means to register about the type of pizza they ask, the quantity of it, and if they bought a soda which one was, the same for desserts and ice cream. In this manner we will be allowed to determine the different and most common combinations of products.

**Analyze Data**

We can analyze the most common type of client by considering the age and if they are currently working or looking for a job. Also we can determine in which pizza the company should put less effort to make it basing this approach in the reviews of the users. This can be achieved by using sentiment analysis with Natural Processing Language (NLP), with a final decision if the review was positive or was negative.

A good approach would be to group the type of product combination (pizza, soda, dessert) the client asked in relation with the age, to see if there are some patterns on it. This can be easily visualized in a barchart which is segmented by age ranges.