**Market Segmentation**:

**Analysis**:

In order to better understand NutrientH20’s Twitter followers, Principal Component Analysis was used. Before running the algorithm, the Tweets under the ‘chatter’ and ‘uncategorized’ categories were removed as they do not provide any useful information for a market segmentation. Next, the data was normalized to use the percentage of Tweets not the overall number of Tweets in each category.

PCA was ran to obtain 5 principal components, as these explain 50% of the variance in the data, to understand the categories these people tweeted about and assign them to a client archetype.

**Findings:**

The first component contained the categories ‘health nutrition’, ‘personal fitness’, ‘cooking’ and ‘outdoors’ as the top four ingredients, while XXXXX were the bottom ones. People that are high in this component tend to be health conscious people that are concerned with their fitness, this mean they are a great target for NutrientH20.

The other components should help differentiate them on more characteristics, however there is little to no differentiation among the other components

Fig1. Graphs component 1 vs rest

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The next component contained the categories "photo\_sharing", “cooking", "shopping", and "fashion" as the top ingredients. The people high in this component tend to be suburban people concerned with diets that are socially active and following fashion trends.

The third component contained "college\_uni", "online\_gaming", "sports\_playing", and "tv\_film" as top ingredients. People high in this component tend to be high school seniors and college kids. This market could be reached best through television and online ads and possibly with any sponsored athlete marketing campaigns, and possibly with vending machine presence on school campuses wherever possible.

Pedro:

Component four contained "politics", "photo\_sharing", "college\_uni", and "travel" for top ingredients. We believe this component represents recent college graduates interested in the political climate and world events. Since this group would most likely consider themselves intellectuals, NutrientH2O could market to these people by representing that it is good for a healthy mind.

The final component contained "cooking", "fashion", "politics", and "travel" as top ingredients. This component represents educated young professionals that are diet conscious, concerned with fashion trends and politics, that like to travel. This group is similar to the group from component four and could probably be marketed to in the same way.

Rocco:

Component four contained "sports\_fandom", "religion", "food", and "parenting" for top ingredients. The people high in this component tend to be suburban family people that follow sports and are diet conscious. Representing NutrientH2O as a healthy and wholesome brand geared towards sports performance could be a way to market to these individuals.

The final component contained "cooking", "fashion", "beauty", and "news" as top ingredients. This component represents educated young professionals that are diet conscious, concerned with fashion trends and politics, that like to travel. An approach to marketing to this group could be to emphasize the positive benefits of NutrientH2O on health, beauty and mind.

**Conclusion**:

Using this analysis, we believe that these five groups represent the best market segments for NutrientH2O to pursue with marketing campaigns. By associating NutrientH2O with sports performance and health, placing ads online and on television, and getting their product in vending machines on high school and college campuses, NutrientH2O could reach some of the younger demographics keeping their brand vital.