

STARBUCKS ANALYSIS ON COMPETITION IN THE EAST COAST

Alexander Klier – Teddy Hoang – Peter Roche

ISA 401 – Spring 2017

I. OVERVIEW OF STARBUCKS

Starbucks is an American coffee company and coffeehouse chain. The company was founded in Seattle, Washington in 1971 and has been growing ever since. Starbucks now has stores all over the world, and the company is still expanding to new areas. Currently, the United States represents the biggest market for Starbucks, with 13,107 stores opened, followed by 2,204 stores in China and 1,418 in Canada. Other than coffee and drinks, Starbucks also sells food products, especially breakfast sandwiches and snacks. However, the coffee & fast food chain has been very competitive especially in the U.S because of the highly competitive space. We want to take a closer look at the competition between Starbucks and other fast-food/coffee chains. The two competitors in the space that we have identified are *Dunkin' Donuts* and *IHOP International*.

Dunkin Donuts is an American global donut and coffeehouse chain founded in Boston, Massachusetts in 1950. Since inception, the company has grown to be one of the largest coffee and baked good chains in the world, with more than 12,000 restaurants in 36 countries. We looked at Dunkin Donuts because Starbucks is diversifying their products by selling sandwiches and other to-go meals, which we assumed to be similar to what Dunkin Donuts has offered, and Dunkin Donuts is also diversifying their products by selling complex drinks.

IHOP (International House of Pancakes), is an American casual quick restaurant chain that specializes in breakfast foods, especially their pancakes. The company has 1,650 locations throughout the world. Originally started in the Los Angeles area, it is characterized by its 24/7 policy at many store locations as well as its hearty breakfast.

The main purpose of this project is to look at Starbucks stores locations and compare it to the competitors because globalization is becoming more and more prevalent, and especially in this case Starbucks has to take a look at the competition in the space in order to make appropriate strategic decisions to gain more market share and continue to dominate the coffee/fast food chain industry.

II. RELATED WORK

The dataset that we chose was the Starbucks location worldwide and we first wanted to see how the stores are distributed geographically. However, after a few meetings and instruction from our professor, Dr. Fadel Megahed, we have determined that the analysis would be more meaningful within the business context if we could incorporate the dataset in different ways. Based on this, we have decided to look for datasets from competitors and compare it with the Starbucks data. We were able to obtain two additional datasets of store distribution for Dunkin Donuts and IHOP and thought this would be a great idea to compare Starbucks against its two competitors. We also thought that having some human factors would contribute to the project, therefore we adopted a dataset of median income and population by zip

code, of which is our unit of analysis for our project. Zip code allowed us to connect each of the three stores' location datasets together. We then utilized Tableau to cluster the variable Median Income to see how focused each brand is on each income cluster. We also made another variable called Market Size by multiplying Median Income by population of that zip code, and clustered the variable Market Size, to see how well each brands are capitalizing in each market (lower market, middle market, or upper market). Finally, we focused on the areas that we think Starbucks is losing (on a state level and on a city level – New Jersey and Greater Boston area), to make further recommendations for Starbucks regarding future expansion and strategic decisions.

III. DATA SUMMARY

The Starbucks data that we had originally had 25,601 rows, representing the data of Starbucks locations worldwide. However, based on the scope of this analysis, we focused on U.S stores, therefore any stores that do not have U.S as its country were eliminated from the dataset. After this step, the dataset now contains 13,609 rows for U.S store locations. We also merged the information from Dunkin Donuts and IHOP datasets with Starbucks datasets based on zip code, as well as information from median income and population that we obtained. Our 2015 Starbucks data was the most recent compared to our 2012 IHOP and 2011 Dunkin Donuts datasets.

IV. BUSINESS QUESTIONS

After integrating Starbucks data with Dunkin Donuts' and IHOP data, our goal is to use the information that we had to help Starbucks make strategic decisions based on the competition with the other two companies. After some analysis, we found out there are business questions that could be answered based on our project.

1. Geographically, where does competition occur?
2. What are the differences of the three brands' customer segments in terms median household income?
3. How well is Starbucks doing in terms of capitalizing the market in the competition area? Where are they winning? Where are they losing? What can Starbucks do to boost market share?
4. Within the area of competition, how heavily invested is each brand in the state belonging to the area?

V. EXPLORATORY DATA ANALYSIS

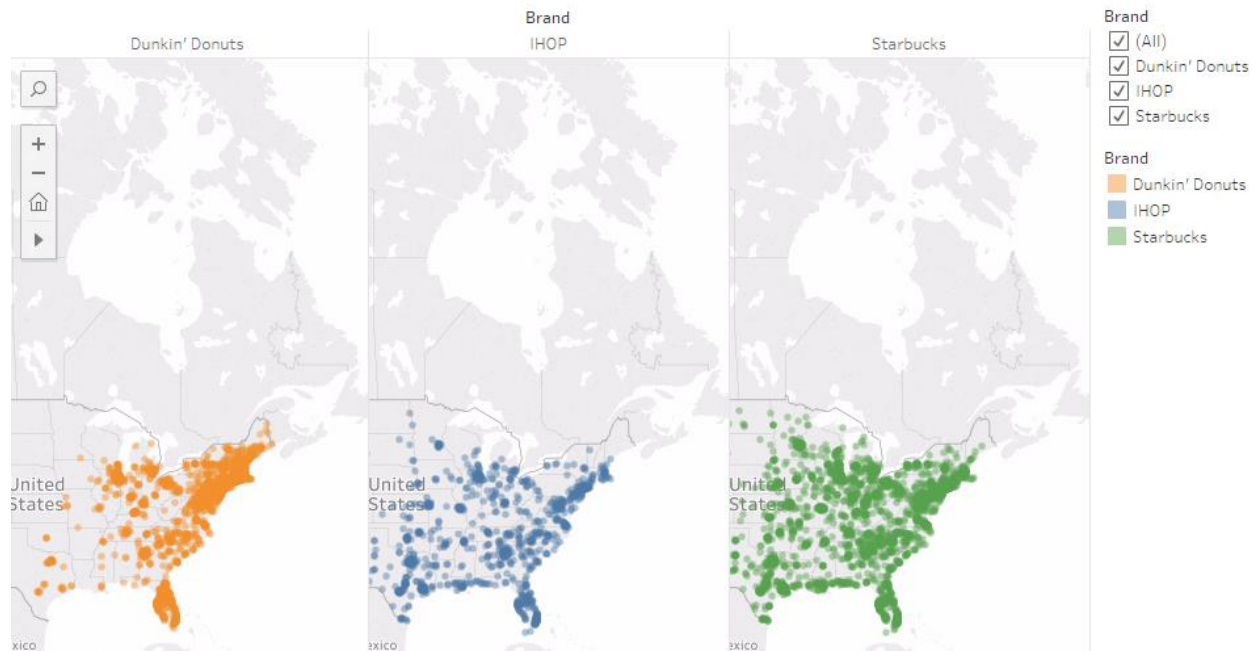


Figure 1: Stores distribution in the United States

This dashboard answers the questions that we had related to competition between Starbucks and Dunkin Donuts and IHOP. From the map, we can see that competition occurs mostly around the East Coast area and some in Florida & Illinois. Even though Starbucks started out in the West Coast, they have expanded throughout the United States. On the other hand, Dunkin Donuts, which was founded in Boston, focuses heavily on the East Coast area. IHOP also has some presence in the East, and when we plotted the map of stores distribution, we think that we would focus on the East Coast - where competition occurs the most. After clustering the income into different income brackets, we found 8 clusters ranging from a median income of ~\$9,000 to ~\$213,000. We identified that the income bracket of \$9000 - \$50,000 is identified as the lower income bracket, \$50,000 - \$95,000 as middle income bracket, and \$95,000 and above would be upper middle to upper income bracket. Looking at how the incomes are distributed, we could see that higher income brackets are distributed in metropolitan and urban areas, whereas lower income brackets are distributed in rural and high poverty areas, and furthermore confirm that our clustering of the income brackets make sense. Digging deeper into how the stores are distributed based on these income clusters, we could see that Dunkin Donuts dominates in the lower to middle income bracket, but Starbucks has a bigger presence in the upper income bracket. IHOP has relatively fewer stores compared to the other brands, but looking at IHOP alone, we could see that they focus primarily in the lower to middle income market.

After segmenting the store distribution by median income, we thought that there should be a variable that brings the comparison to a more equal playing ground. We have data of median income and population, and we created a variable called Market Size, using median income multiplied by population, and we wanted to see how each brand is capitalizing in each market. After creating the variable, we clustered Market Size and found out that seven market size clusters exist. We identified \$6M - \$240M to be lower market, \$240M - \$642M as middle market, and market size with a value above \$642M as the upper market. We want to use this market size variable because it provides a more holistic view of how the stores are distributed based on the wealth of an area, factoring in population. From the graph showing how the stores are distributed across the market size clusters, we can confirm that Dunkin Donuts dominates in the lower and middle market, while Starbucks is winning in the upper market. IHOP still does not have a level of competition that is comparable to the two brands, but they focus more on the lower and middle market.

State	Dunkin' Donuts	Starbucks	IHOP
CT	9.21%	1.58%	1.20%
DC	0.25%	2.05%	0.34%
DE	1.46%	0.57%	1.20%
FL	9.35%	15.97%	24.96%
GA	2.18%	7.49%	13.16%
IL	9.67%	13.25%	8.72%
MA	11.15%	3.75%	2.91%
MD	4.03%	5.99%	5.47%
ME	3.62%	0.45%	0.17%
NC	2.66%	7.80%	7.52%
NH	5.62%	0.38%	0.68%
NJ	10.40%	4.13%	6.84%
NY	11.65%	14.80%	8.38%
PA	9.24%	8.21%	3.25%
RI	4.19%	0.33%	0.51%
SC	1.39%	2.96%	4.62%
VA	2.80%	10.17%	9.91%
VT	1.16%	0.12%	0.17%

Figure 2: Percent of stores in each state (out of total stores in East Coast)

After having a broad view of how the competition is, we wanted to dig deeper into the area of competition to see how invested each brand is in each state of the competition area. The competition area includes the following states: Connecticut, Washington D.C., Delaware, Florida, Georgia, Illinois, Massachusetts, Maryland, Maine, North Carolina, New Hampshire, New Jersey, New York, Philadelphia,

Rhode Island, South Carolina, Virginia & Vermont. We wanted to look at the areas where Starbucks is less invested than other two brands, and we noticed that New Jersey is the area of our interest. In New Jersey, Starbucks only have 4.13% of total stores in the focus area while Dunkin' Donuts have 10.4% of their stores, and IHOP with 6.84%. We then plotted a map of how the stores are distributed in the New Jersey compared with the distribution of wealth in this area, and we could see that Starbucks is missing out on many areas that contain a great amount of market size, while Dunkin' Donuts covers across different market sizes and has many stores throughout New Jersey. Starbucks can utilize this distribution map to facilitate in strategic decision of where they could expand to, as there are areas that could be considered upper market that we think would fit into Starbucks vision and product line. We also wanted to dig deeper at a city level, and therefore we chose Boston because Starbucks is losing in the Massachusetts market. It is surprising that in Boston, even though considered a wealthy market, Starbucks did not focus on the higher income bracket. Their distribution was pretty scattered and this might be the primary reason why they are losing it in Boston. There are many areas considered upper market that Starbucks can consider expanding into. Thinking about competition and strategic decision going forward, we could see that even though Starbucks dominate in the upper income / upper market size across the three brands, there are many areas that do not fit into this assumption. Starbucks is missing out a lot on potential market share in areas such as New Jersey or Massachusetts, and we think that Starbucks could utilize this information to facilitate their strategic decision for expansion and gaining market share.

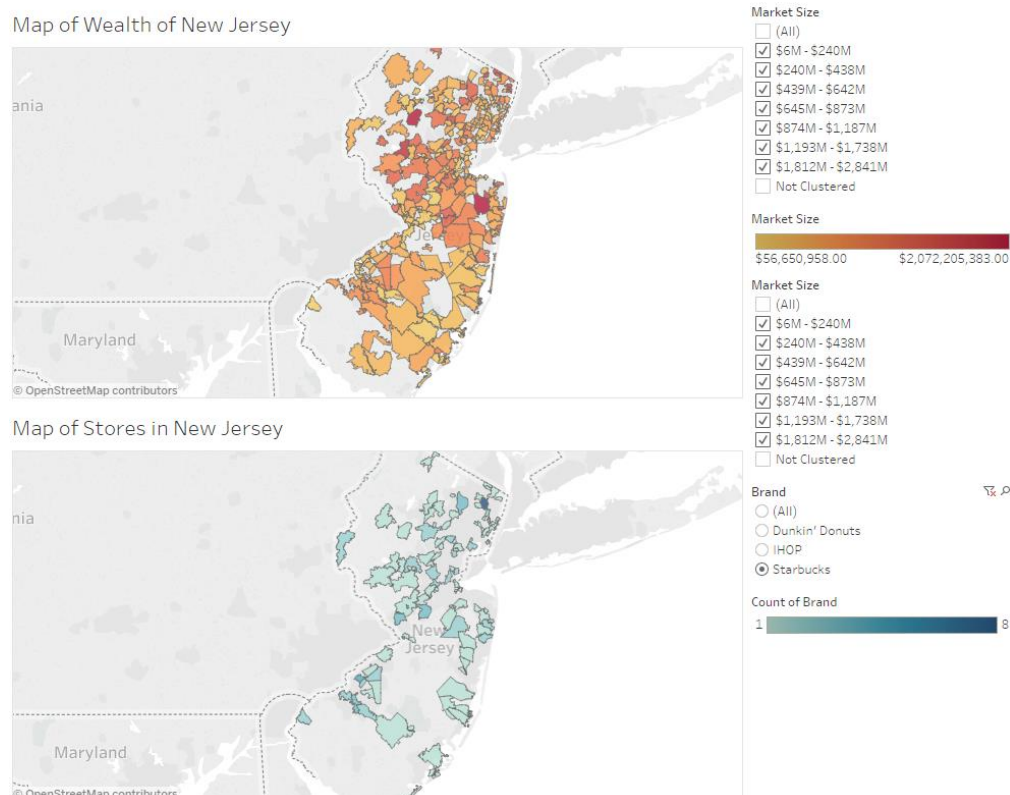


Figure 3: Wealth & Starbucks Distribution in New Jersey

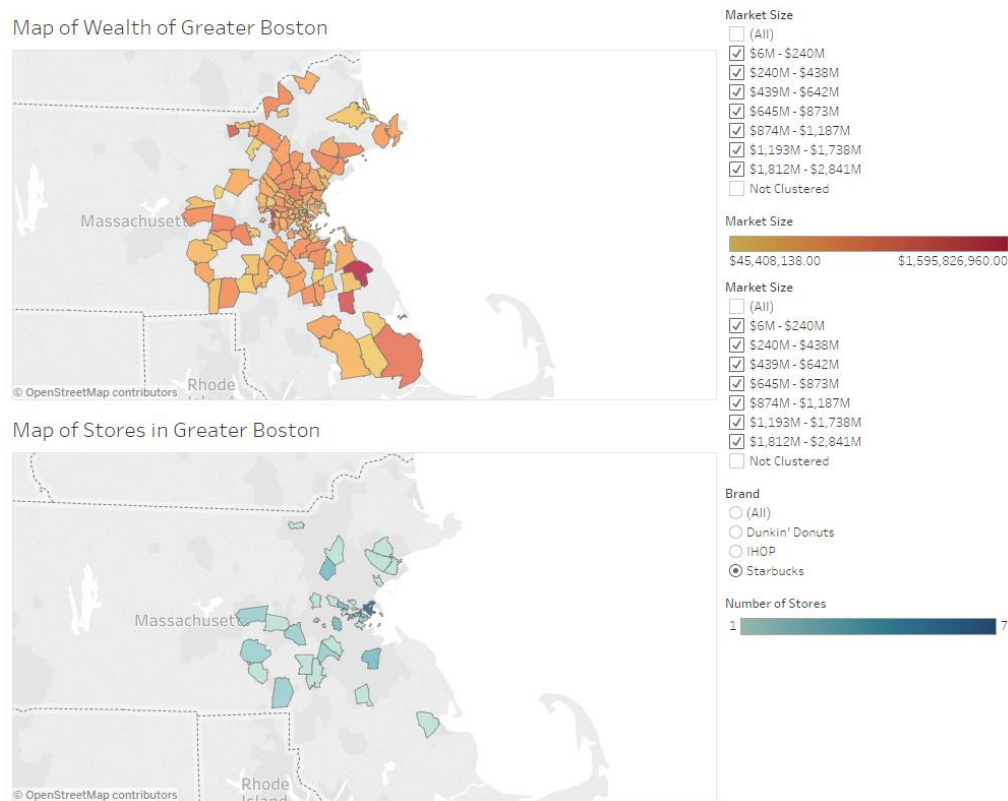


Figure 4: Wealth & Starbucks Distribution in Boston

VI. CONCLUSION

Based on our dashboard and our analysis, we were able to make the following determinations:

- We have identified the competition area for Starbucks being the east coast area, and the main competitors is Dunkin Donuts.
- Starbucks focuses heavily in the upper income bracket and the areas that have a greater market capitalization, but when we look at specific areas that Starbucks is losing market share, we can see that Starbucks is missing out a lot on potential market share based on their target market
- Starbucks could utilize our dashboard and analysis to identify geographic locations that are possible for an expansion
- In order to make an informed decision, we think that more data regarding demographics (race, level of education, etc.), regulation level, and other industry research data would be helpful for Starbucks in making strategic decisions for the Company.

