

Observations of Year 1 Data for Year 2 Decisions

Recap of my Year 1 Decisions

Units to Produce: 40.0 million

Channel price: \$6.50

Formulation: Pods

Product Features and Positions: Odor Elimination

Trade Channel Spend

- Convenience: 40%
- Club: 30%
- Grocery: 20%
- Mass: 10%

Media Spend:

- Print: 10%
- TV: 15%
- Radio: 15%
- Digital Ads: 60%

Target Market Segment

- **Income:** \$20,000 and \$20,000-\$39,999
- No ethnicity focus
- **Household focus:** Household size of 4 and 5+
- **Region:** Southeast
- **Age:** Under 35, 35-44

The analysis of competitors and the outcomes of my Year 1 decisions for Blue will be explored. After analysis, I will make decisions and strategies for Year 2.

Price Elasticity of Demand

Price Elasticity of Demand = Percentage change in demand / Percentage change in price. The only company that increased their price from 2018 to 2019 is **Blue**.

I altered the price of Blue's product from \$7 to \$6.50 from 2018 to 2019. I will calculate PED below.

The Demand from 2018 to 2019 is 32,183,242 to 55,468,908.

$$\% \text{ increase of Demand} = ((55,468,908 - 32,183,242) / 32,183,242) * 100 = \% + 72.4$$

$$\% \text{ decrease in Price} = ((6.5 - 7) / 7) * 100 = \% - 7.1$$

$$\text{Price Elasticity of Demand} = \frac{72.4}{-7.1} = -10.2$$

A **PED of -10.2** is considered elastic. This means that demand responds very strongly to a change in price. Blue generated \$225,282,694 and \$260,000,000. This is a %15 increase!

Looking at Trends

Operating Profit from 2018 - 2019

Turbo: \$231,979,588 -> \$155,416,504. **%33 decrease.**

Fresh: \$158,209,289 -> \$76,696,548. **%51 decrease.**

Blue: \$37,797,886 -> \$38,799,999. **%2.65 increase.**

Store: \$25,668,060 -> -\$12,683,745. **%149.42 decrease.**

Market Share

From my Year 1 decision, Blue's market share increased from %11 to %14.3. Moreover, Fresh and Turbo lost ~%1 of their market share and Turbo gained %0.5.

I decided to focus my marketing towards the Southwest Region. From that region alone, there was a change from %9.2 to %17.6. However, Blue's presence in the Northeast region is very low and the market shares in the Northeast and West regions decreased.

- Overall Turbo still dominates the market at %44.6
- The market shifts based on Region. (listed from highest to lowest in 2018)
- Northeast: Turbo > Fresh > Store > Blue
- Southeast: Fresh > Store > Turbo > Blue
- Central: Fresh > Turbo > Store > Blue
- West: Turbo > Fresh > Blue > Store

Brand Demand and Brand Sales

From my Year 1 decisions, the Brand Demand for Blue increased from 32,183,242 to 55,468,908. Only for Blue, **Brand Sales** did not meet demand. Blue only has a supply of 40,000,000 units while the demand was 55,468,908. Otherwise, every competitor had a 1-1 ratio with their demand and sales. Note that every competitor's Brand Demand lowered. Along with their demand matching sales, it is safe to say that they chose a lower **volume** (# of units to produce).

- Since Demand meets sales (no inventory), Brand Sales is the same.
- In the overall line graph with **no filters**, Blue is now performing better than Store.
 - Here are the Brand Demand values
 - Turbo: 124,445,260
 - Fresh: 66,474,636
 - Blue: 55,468,908
 - Store: 48,183,882
- Looking at people **under the age of 35 and 35- 44**, Blue has the highest demand out of everyone at 38.9 million and Turbo being 2nd at 37.4 million.

- This shows that marketing to these age groups in my Year 1 decisions have been successful.
- Moreover, filtering with a **household size of 4 and 5+** Blue performs better than Store and Fresh. Blue is at 32.7 million whereas Turbo is at 37.4 million.
 - From **Year 1**, the marketing endeavors towards these household sizes show some success. The demand for Blue is in 2nd place with only 5 million behind Turbo, the leading competitor.
- With the filter on **Income under \$20,000** the demand for Blue is higher than all its competitors except Turbo. Blue is at 27 million while Turbo is at 42.5 million.
 - This shows my marketing strategy in **Year 1** has some success.

Overall, looking at Brand Demand and Brand Sales has revealed that my decisions made in Year 1 were a success. More importantly, this data demonstrates value created in my strategy. To briefly summarize, Blue has successfully marketed to groups of people under the age of 35 and 35-44, household size of 4 and 5+, and income under \$20,000. Unfortunately, Blue's sales did not meet demand. I was too conservative in deciding how many units Blue should produce in 2019 and lost value from this.

Media Consumed

There is no significant change in these numbers in 2019.

- Media Consumed heavily changes when filtering on **Age**. I will list them from greater to least media consumed. With no filters it is Print > TV > Digital Ads > Radio
- Under 35: Digital Ads -> Radio -> TV -> Print
- 35-44: Digital Ads = TV > Radio > Print
- 45-55: TV > Print > Digital Ads > Radio
- 55 and Over: Print > TV > Radio > Digital Ads

Deciding which age group I will market towards will also affect which media channel I will invest in. E.g. if I focus marketing for Blue to people under 35 and ages 35-44, then I should put more emphasis into digital ads.

Formulation Demand

There is no significant change in these numbers in 2019.

- **Household Size** has a big change on formulation demand whereas other filters do not. Demand will be listed from greatest to least. The quantity demanded will be listed if the margin between the is very large.
- Household size 1: Pods (27,361,039) > Liquid (13,909,055) > Powder (9,196,209)
- Household size 2: Pods > Liquid > Powder
- Household size 3: Pods and Liquid are of equal demand > Powder
- Household size 4: Pods > Liquid > Powder
- Household size 5+: Pods > Liquid > Powder

Pods are still very popular, despite a %15 increase, I will continue to choose pods as Blue's formula.

Brand Attribute Demand

There is no significant change in these numbers in 2019.

- Playing around with Brand Attribute Demand, the only filter that has a strong effect is **Region**.
- The **Northeast** region prefers Softness and Cold Water
- **Southeast** prefers Scent and Odor Elimination
- **Central** demands Odor Elimination, Cold Water, Scent, Softness (from greater to least demand).
- **West** prefers Cold Water -> Odor Elimination -> Softness -> Scent

Trade Channel Demand

There is no significant change in these numbers in 2019.

- Income heavily affects this attribute. But with no filter, from greater demand to least demand is Convenience -> Club -> Grocery -> Mass
- Income under \$20000, there is a much greater demand for shopping in Convenience locations than other channels.
- \$20,000-\$39,999, there is a much greater demand for shopping in Club locations than other channels.
- \$40,000-\$59,999, there is a much greater demand for shopping in Mass locations than other channels.
- \$60,000 and Over, there is a much greater demand for shopping in Grocery locations than other channels.
- No other filters seem to shift the locations for Trade Channel Demand.

Households

There is no significant change in these numbers in 2019. The values described here from 2018 to 2019 are very close to one another and still follow the same order, so these values do not need to be adjusted.

- A breakdown of how many people (data points) are in Household Size. This can be useful to reference when I am deciding if I should filter on Household Size.
 - 1: 32.8 million
 - 2: 40.9 million
 - 3: 20.1 million
 - 4: 17.9 million
 - 5+: 12.1 million
- For region, the breakdown is as follows
 - Northeast: 21 million
 - Southeast: 47 million
 - Central: 26 million

- West: 29 million

Price Point Demand

Price point demand are prices at which demand for a given product is supposed to stay relatively high. This metric does not drastically change with any filter and it would make sense a lower price will have a high demand. That means Turbo selling at \$10 must have very good target marketing for their brand attribute.

The **current prices** as of 2019 are

- Turbo: \$10
- Fresh: \$8
- Blue: \$6.50
- Store: \$6

Unit Cost of Each Company 2018

Blue: \$5.83

Turbo \$8.20

Fresh: \$5.94

Store: \$5.53

Unit Cost of Each Company 2019 and Competitor Analysis

Blue: \$5.53

Turbo \$8.75

Fresh: \$6.85

Store: \$6.26

I have the Unit Costs from 2018 and 2019 together so I can compare them. I have also copied and pasted the values from **Operating Profits** next to Unit Costs for further analysis. The unit cost increased for every company except Blue. I will explore why below.

Turbo: \$231,979,588 -> \$155,416,504. **%33 decrease.**

Fresh: \$158,209,289 -> \$76,696,548. **%51 decrease.**

Blue: \$37,797,886 -> \$38,799,999. **%2.65 increase.**

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Each competitor decreased their revenue and volume which in turn increased their unit costs. Along with this, their price is still the same. Their unit costs could have also increased due to their change in formula (in response to my business decisions for Blue). This means they have changed to a more expensive formula which is increasing their unit costs. Their choices in Formulation and units to produce seem to have incurred a sharp decrease in operating profits which I have listed above (and previously in this analysis).

The details and calculations to produce Unit Costs for Year 1 are in my excel sheet which I will upload.

Operating Profit and **Revenue** will be factored in the Decision and Strategy section based on the **Demand Forecast Tool** and my **Income sheet**.

My Decision and Strategy of Year 2

Channel Price

The Channel Price I choose will be \$6.50

Strategy

- I have a few reasons for setting the price to \$6.50.
- Calculating PED from the historical data, when Turbo and Stores increased prices, they saw a loss in demand,
- Year 1 has shown that lowering price has increased demand and sales of Blue's product. This is evident in Blue selling all of its units, but not being able to meet the demands of the customer.
 - Porter's 5 Forces Model explains that price is a strong factor in competition and my Year 1 results prove that.
 - There are only 3 competitors in this simulation with Blue, only Fresh's and Store's price are around \$7
 - Although the Price of generic brand formulas from Store is still lower than \$6.50, without their proper marketing, they saw a loss in Operating Profit.

Formulation

My choice is Pods

Strategy

- Despite not making only an increase of \$1 million in Operating Profits from last year
- Although Pods will incur a +15% in variable costs, Pods are still the most popular choice.
- It is shown in my Year 1 results that Blue had an increase of only \$1 million in Operating Profits from last year to Year 1.
 - The reason for this is not because of the choice of Formula (increased variable cost), but because I did not choose to produce more units to meet Brand Demand.
- No matter the filter, Pods are always in demand with Powder in last place.
- Blue will go with Pods despite the +15% in variable costs due to popularity.

Product Features and Positioning

My choice is Odor Elimination

Strategy

- I chose this because I plan to Market to the Regions Southeast, Central, and West.
 - This is because all of these regions strongly prefer odor elimination
 - I also choose Central and West because Blue does not have a strong presence in this region and should take steps to become one.

- Moreover, there have been more negative sentiments towards Blue.
 - Upon inspection, some of these are due to the change in “smell”
 - Here are some of the negative responses below

- Did you change the fragrance of your laundry detergent? Something smells different. And not different in a good way...

- I like what your product does to my clothes. Feels great and looks clean. But gosh that SMELL. I can't stand it.

- Is there a reason your new products smell so bad? Yikes. Pass the nose plugs.

- I heard @Blue products react badly with some deodorants... #beware

Trade Channel Spend

My choice is

- Convenience: 45%
- Club: 40%
- Grocery: 10%
- Mass: 5%

Strategy

- With lower income, Convenience is more in demand as seen in the data.
- Since I also choose to market to people making 20k-39k, I will also spend a similar amount to Club.
- Since I will keep Blue's Price at \$6.50, it should still be affordable for people with lower income.
- Now that Blue is performing much better in Brand Demand, I feel comfortable distributing efforts to Convenience and Club.

Media Spend

My choice is

- Print: 5%
- TV: 45%
- Radio: 5%
- Digital Ads: 45%

Strategy

- Digital ads are more consumed by people under the age of 35 and 35-44.
 - TV ads are consumed by 35-44 as well so that is why I will choose to spend more money on TV ads.
- The Household size with people under the age of 35 and from 35-44 in 2019 is 49.9 million whereas 55 and Over is 48 million

- I want to target ads with a larger population, but since Blue is more popular with younger people, I choose not to put very much revenue into Print and Radio.

Target Market Segment for Decisions

- **Income:** \$20,000 and \$20,000-\$39,999
- No ethnicity focus
- **Household focus:** All household sizes
- **Region:** Southeast, Central, West
- **Age:** Under 35, 35-44

Strategy

- The most preferred channel for lower **income** people is Convenience. Since I have already chosen to focus on Convenience, I have decided to focus on people with under \$20,000 and \$20,000-\$39,999 incomes.
 - Choosing to spend more money on the Club trade channel is also a reason for me to focus on people with the income of \$20,000 - \$39,999
- Not focusing on ethnicity is the same decision i made for Year 1
 - There is no strong indication that ethnicity is a contributing factor
- Examining the trends, **Household focus** seems to strongly increase Brand Demand
 - In Year 1, focusing on household sizes of 4 and 5+ put the demand of Blue ~3 million below Turbo, putting us in 2nd place (above Fresh and Store)
 - This is why I want to put more emphasis on all household sizes.
- Focusing on the **Regions** Southeast, Central, and West will target the majority of the geographical demand.
 - I added Central and West to the focus for Year 2 because Blue lost presence in these two regions.
 - Northeast was not added because it is by far the smallest region to market towards.
- From the Year 1 data, focusing on Age has worked well. Consumers under the age of 35 and age of 35-44 are now preferring Blue over the other products.
 - Described in the Brand Demand and Sales section provides the reason why I will continue to market towards these two age groups.

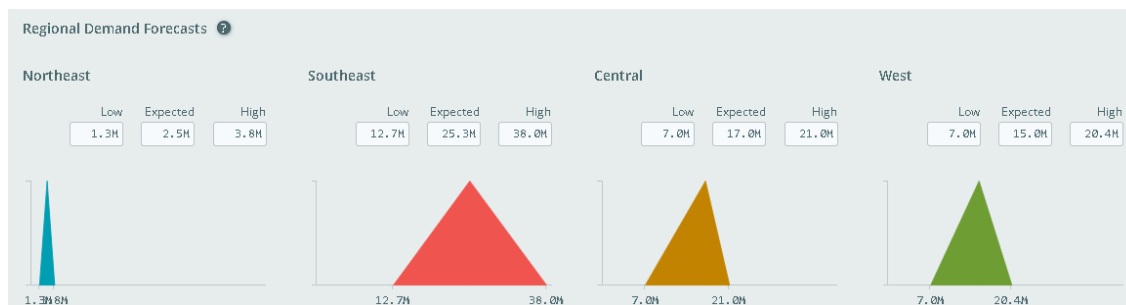
Units to Produce

The amount of units to produce is 75 million.

Strategy

- In Year 1, the current unit cost for Blue is \$5.53. We only made an operating profit of \$38,000,000 due to the fact that I underestimated our Brand Demand (Sales did not meet Demand)
- The Demand for Year 1 is 55 million and the units produced and sold is 40 million. This is a 15 million unit deficit!
 - Now that I am marketing to an even larger population for Year 2, I will need to produce more units than ever.

- Looking at the calculations for PED, it shows that Blue's demand is very elastic. This gives me more reason to produce more units.
- After playing around with the unit cost calculations and unit cost changes in my Excel sheet, with a **higher volume at 75 million**, Blue will produce their Pods at a **unit cost of \$4.38**
 - With this number of units, the values I will list from the **Forecast Demand Tool** tab will be the **most likely forecasted values**
 - I have adjusted the regional demand values based on the regions I am marketing towards and the household size of the regions. The values that I am referencing are the ones described in the Trend section under Household sizes.
 - Here are the Low, Expected, and High demand values for each region. Southwest, Central, and West are projected to be higher since I plan to focus in those areas.



- Demand: 55,990,841
- Sales: 61,566,485
- Revenue: \$400,182,151
- Total Costs: \$273,283,062
- Operating Profit: \$126,899,090
- On my **Excel** sheet with projects with volume as 75 million and price at \$6.50, here are my projected values
 - Revenue: \$487,500,000
 - Total Costs: \$328,193,750
 - Operating Profit: \$159,306,250
 - Comparing these values, my projected values from my Excel sheet are a bit higher, but since I cannot input the expected demand from each region along with my target trade, media, and marketing channels, the **Demand Forecast Tool** is more accurate.

In conclusion, the Year 1 analysis written in this document has been used to develop and strategy and their rationale for my Year 2 decisions.