

The Future of Avocado Trends in the United States

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CSDA1000 Big Data

10/10/2018

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The Avocado Industry is in a major disbalance when comparing sales, organic avocados only hold 2.8% of the market. There is also a major average price gap between organic and conventional avocados. While average prices peak in the last quarter of the year at just under 1.4 USD for conventional, organic holds a strong average price around .50 USD over conventional even during peak sales quarters. Using this data we see that people prefer a lower price point over organically grown avocados. This means keeping conventional avocados flowing will always give more profits due to the sheer quantity sold annually. The annual volume of conventional avocados sold across the USA has jumped just above 25% over the past four years showing exponential growth across the fifty states at over 2 million units. Looking into the total volume of sales in different regions we see a huge gap between the west and east coasts (due to population distribution). This shows where to target and also many virtually untapped markets, including: Albany, Las Vegas, Seattle, and Charlotte. These 4 example markets mass a population of 2,277,426 combined and are all growing. All these different insights we have into avocado sales can help shape the future of US sales and revenue for stakeholders and executives. We will also model the data in a way to show the future projections if things aren't changed in anyway by the company.

Proposal

The proposal I have designed for the next five years is summed up into the three E's: Evaluate, Expand, and Exposure. These three E's hold the keys to the future of the avocado industry. Holding high ambitions will only prove there is no ceiling in the industry. With a ripe health trend of recent years (pun intended?), sales have only gone up. The value of natural fats held inside avocados there is nothing but benefits for the customer base inside our product.

When evaluating we gain insight to the strengths and weaknesses of the industry. Strengths being the volume of conventional avocados sold, and the 25% boost of volume sold in the past four years. The weaknesses of the industry are the lack of presence in the east coast and central states as well as the fourth quarter volume, can be addressed with boosted health ad campaigns on social media and television. Another weakness is the price gap of .50 USD that organic avocados have over conventional. However the amount of sheer volume sold the conventional avocados have there is no need to worry for the coming years about losing sales.

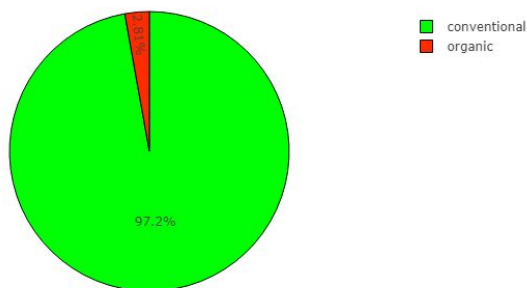
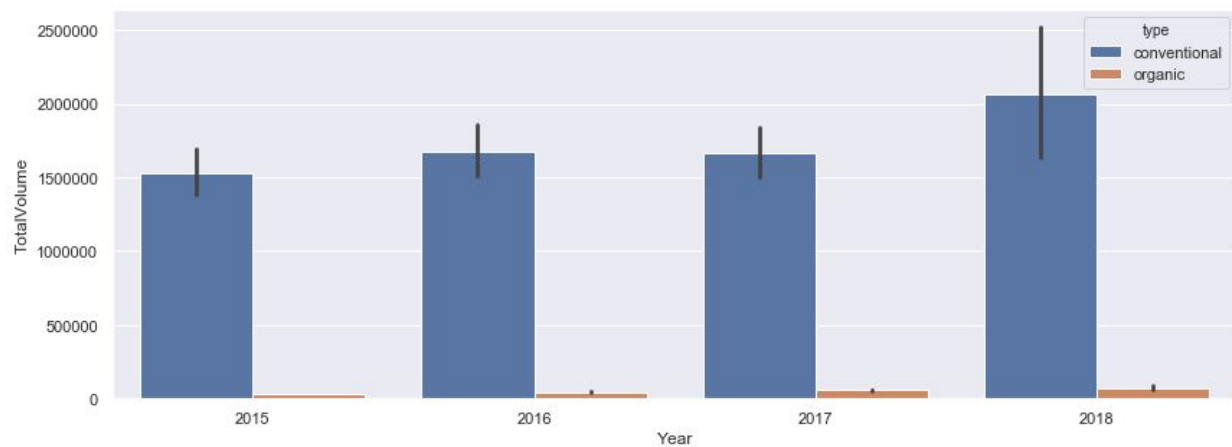
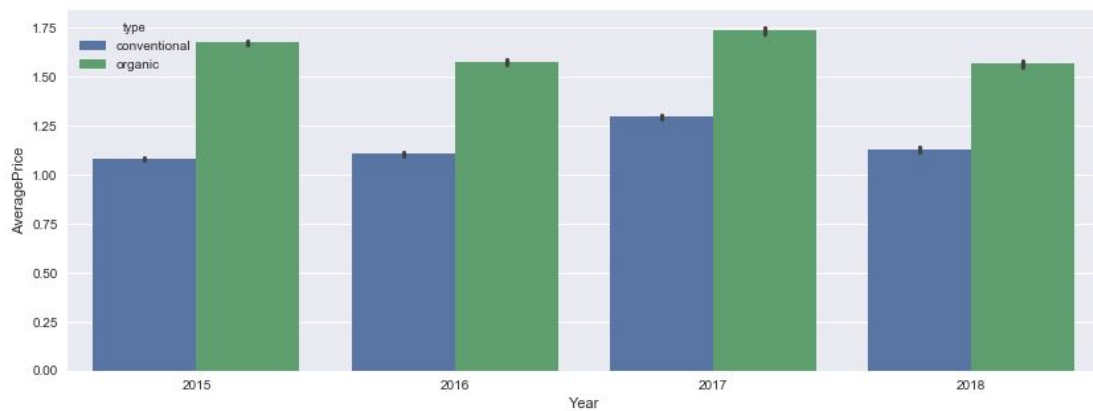
The key to Expanding is simple, target key growing markets and increase the advertising portfolio. Targeting key growing markets allows for a foothold to be established inside cities and states that have been growing for years and are showing no signs of stopping. Seeing trends starting in smaller markets could give future consumers the push they need by fellow citizens already partaking in these health trends.

The final step exposure is an important one, without it any changes to market expansion is useless. More ads equals more sales is a proven fact. As long as the word rings through social media people will be conscious of it when at supermarkets. The perfect time to target the ads is during the fourth quarter as prices rise substantially per unit. With these targeted ads the fourth quarter would be completely transformed. The problem the industry sees in the fourth quarter is the lack of volume. The targeted ads would turn that to stable sales annually, and with the boosted advertisements the industry will prosper. The final step of exposure is branding the benefits of buying avocados as a 'superfood', this word holds not only power but it also holds substantial value to consumers. Many foods referred to as super give an aura of instant benefits and long term health, making sure customers are not short but long term patrons.

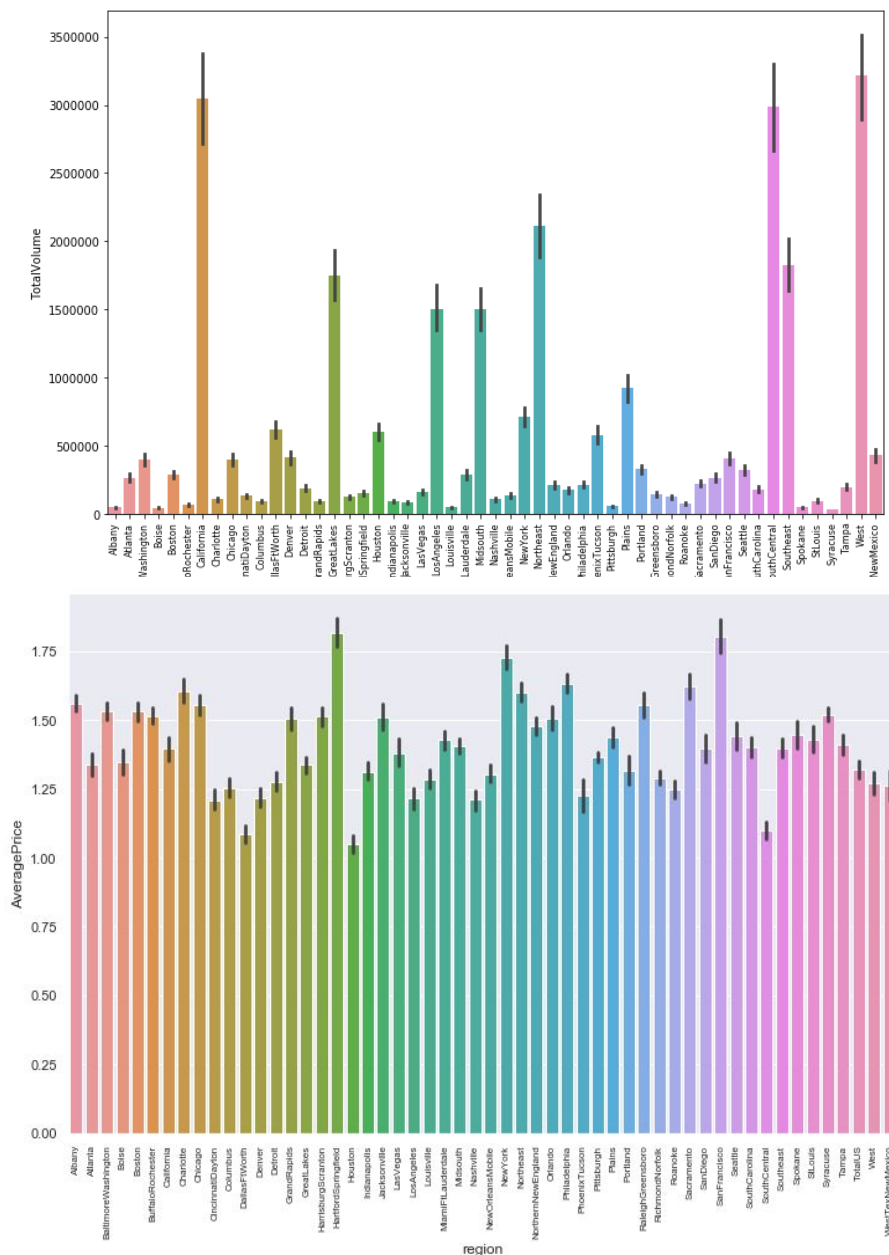
Cost and reward

The cost and reward requires spending more money on advertising and pushing more volume to key growing markets. Initially the cost will be higher than usual, of course but necessary for the impending success for the future of the business. Using proven advertising agencies means all that is required is their business, the agency would do all the advertising work using their professional staff. The reward speaks for itself, numerous virtually untapped markets outnumber the established fifty to one. Once markets are established and networks are built avocados have the potential to own a large percentage of the fruit market. They are already widely renowned and all potential customers need is that final push to the supermarket.

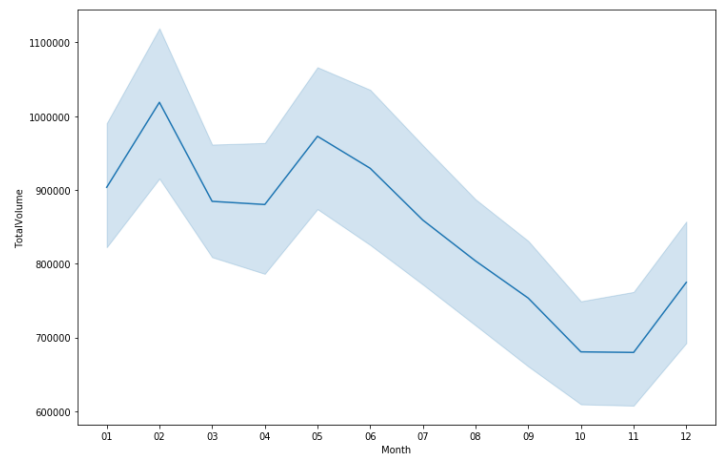
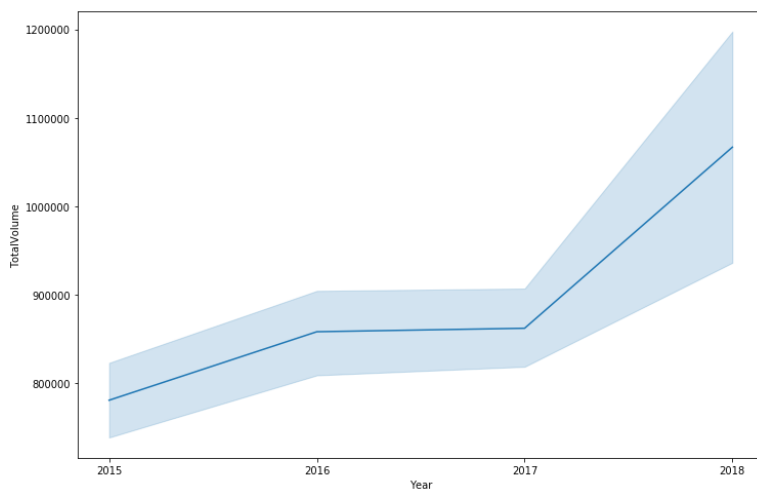
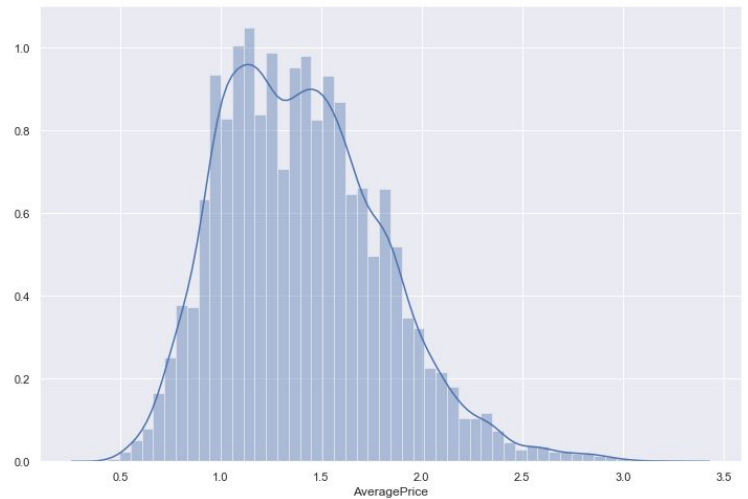
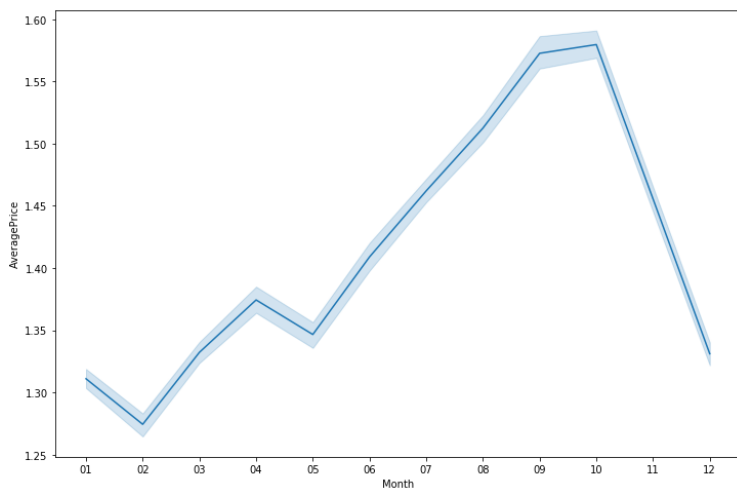
To begin with: three informative plots. They all display both organic and conventional avocados. In the first figure we see Average Price each year, how organic is always around 25% higher annually. Most importantly is the market share and total volume conventional has compared to its counterpart, conventional completely controls the market.



Next we look into the average price and volume compared to the region. Average price is very consistent statewide, but when you look at volume over the past four years you see key markets to hone in on, as well as ones that are becoming more prominent. Some growing markets include; Rains, Dallas Ft. Worth, Atlanta, and New Mexico. Understanding these markets is key for future expansion.

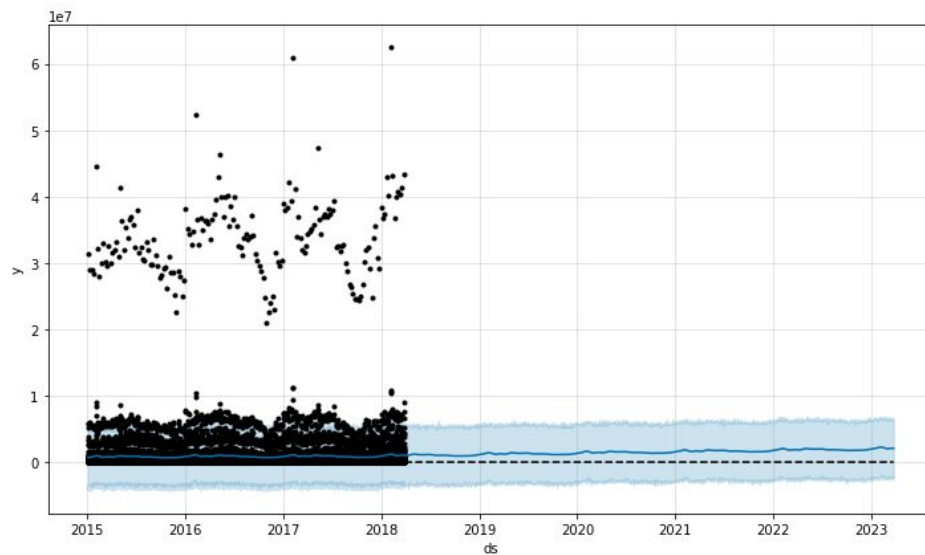


Lastly we look at Average Prices and Volumes on a yearly and monthly scale. The first row shows us average price over twelve months as well as the distribution of the average price throughout the data. This tells us that the final quarter the price's rise severely. We see the consequence of such a price rise in the bottom row of graphs. The Total volume per month(bottom right) shows us how the final quarter has the lowest volume annually for avocado's. The bottom left graph tells us another story, one of great potential. The graph displays a very high rise in volume in 2018, a very good sign of a healthy increase.

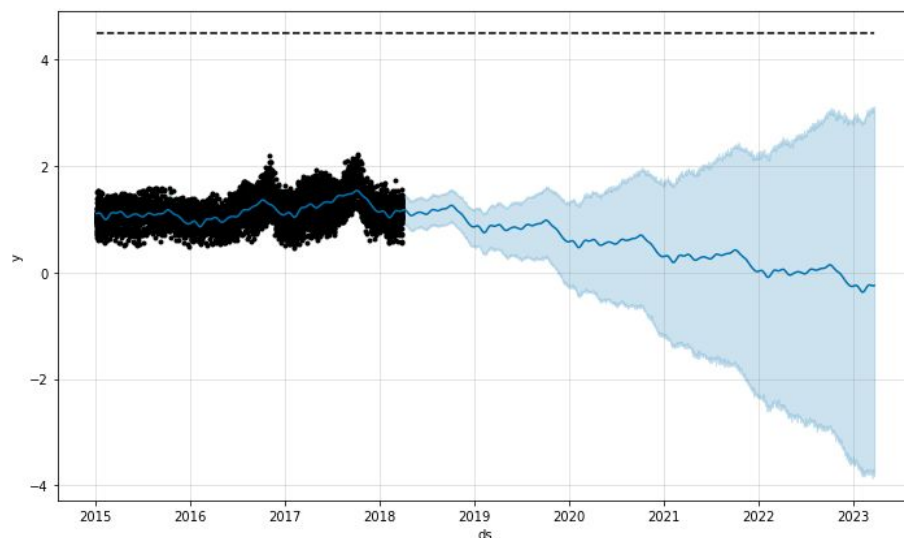


We can visualize a forecast of things to come, what to expect if things go unchanged and left to run them self. The beauty of analytics is being able to look into the future and past trends, and learn from the data that's been molded into valuable insight.

Model 1: This first model displays total volume over a 8 year timeline into the future. This tells us volume has not skyrocketed, but has been stagnant and will continue to be unless change is made.



Model 2: This second model displays the prediction of the future average price per unit. This displays a decline in prices for conventional avocados in the future which could be interpreted as a call for change in infrastructure.



In conclusion, the Avocado Industry suffers from a major disbalance when comparing sales. With the given data we have found that the problem is the fourth quarter. As the volume drops to its lowest yearly point the prices raise to their highest. With an influx of targeted ads to key growing markets and social media campaigns this would transform the fourth quarter to a stable form as we see throughout the year. Despite these fourth quarter 'woes' the avocado industry has been thriving. Looking into our model's show signs of a steady volume, but also a decrease in average prices. Future sales projections would skyrocket if given a rebranding as well as an ad campaign.

With the market being so heavily favored towards conventional avocados there is no worry for sharing the market with organic. For the foreseeable future any ad campaign would not benefit the competitors meaning 97.2% (or higher after change implementation) of the profits from the advertisements would go directly to conventional avocados. After analyzing the regions of the United States there are few certainties, California and the south central should be honed in on as well as key growing markets. Looking at our model we can see how focusing on growing our large markets as well as creating new niche markets around the United States would benefit sales in the future as well as the present.

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