

# POSSIBLE CONTRIBUTING FACTORS FOR A SUPERSTORE GIANT'S SALES

## 1. INTRODUCTION

*A question that bothers every business person regardless of their industry or business size is- "what can be done to improve sales? Analysis solutions help produce insights from data, metrics, and sales patterns. As a result, analyzing sales can help you better know previous sales results and make more informed decisions about market potential, prospects and customers, product lines, and sales team performance this analysis seeks to provide insight to all of this. Running a successful firm requires careful consideration of sales analysis. With the aid of sales analytics, you can choose which goods to prioritize, where to market, and how to effectively connect with buyers. In order to complete my analysis, I must determine whether Sales have increased across all of the variables that have been suggested as having the ability to affect this superstore.*

## 2. BACKGROUND OF STUDY

*This dataset, which belongs to a Superstore Giant in the United States, has 9994 data points in all. It originally had 20 columns, each of which represented the purchase habits of this store's clientele. I used feature engineering to add three more columns to this dataset. With the exception of a few numerical and date/time data types, the majority of this data was of the object data type. Sales trends from 2014 to 2017 were primarily represented by the date time data type.*

## 3. AIMS AND OBJECTIVES

*The aim of this analysis is mainly to determine whether Sales have increased across all of the variables that have been suggested as having the ability to affect this superstore. This analysis has various sub question which it's going to provide clarity on. This question include When has this super store made the most sales over the years? Which product categories have made the most sales over the years? Who are you selling the most to? Where do you sell the most?*

#### 4. METHODOLOGY

*Data cleaning: This data included some date objects in the incorrect format that needed to be fixed.*

*Data manipulation: I categorized my data using the group by functions in Python to make analysis easier.*

*Feature engineering: from previously existing columns, additional ones were constructed.*

*Exploratory Data Analysis*

*Visualization: insights were produced using graphs plotted with Seaborn, Matplotlib, and Plotly.*

*This summary table highlight the quality of my Data been worked with*

	<i>accuracy</i>	<i>completeness</i>	<i>consistency</i>	<i>relevancy</i>
<i>Order date</i>	<i>The order date for Sales placed were mostly in A wrong Format</i>	<i>No missing value</i>	<i>Inconsistent data set</i>	<i>I performed some feature engineering on this column to extract a year , month and day column from this</i>
<i>Segment</i>	<i>Data was of object Data type</i>	<i>No missing values</i>	<i>Consistent discrete variable</i>	<i>It had a high relevancy to sales generated by the company</i>
<i>state</i>	<i>Data was of object Data type</i>	<i>No missing values</i>	<i>Consistent Data</i>	<i>It had a high relevancy to sales generated by the company</i>
<i>Category</i>	<i>Data was of object Data type</i>	<i>No missing values</i>	<i>Consistent discrete variable</i>	<i>It had a high relevancy to sales generated by the company</i>

## 5. EXPERIMENTS AND RESULTS

*I utilize the following predicted factors:*

*Order Date: I'll use the YEAR column I made from the product's order date.*

*Segment: The group to which the customer belongs.*

*State: The customer's home state.*

*Category: The product's order category.*

*Using insight generated from this, my analysis answered the following question:*

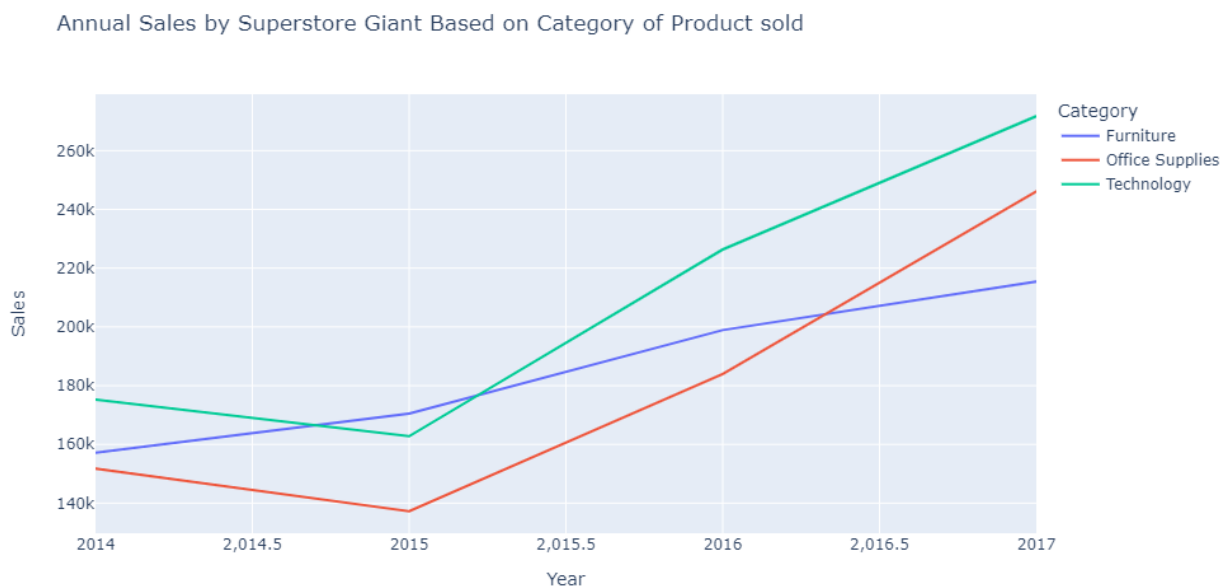
### **WHEN HAS THIS SUPERSTORE MADE THE MOST SALES OVER YEARS?**

*In figure 1, we created a chart indicating that that 2017 was the year this company has the largest sales .This company's sales in 2015 drastically decreased from those in 2014, THEY ACKNOWLEDGED A HIGH TREND IN SALES FROM 2016 TO 2017 AND NOTED IT. Neither the reason for the low sales in 2015 nor the subsequent increase in sales from 2016 to 2017 has been determined.*



### **WHICH PRODUCT CATEGORIES HAVE MADE THE MOST SALES OVER THE YEARS**

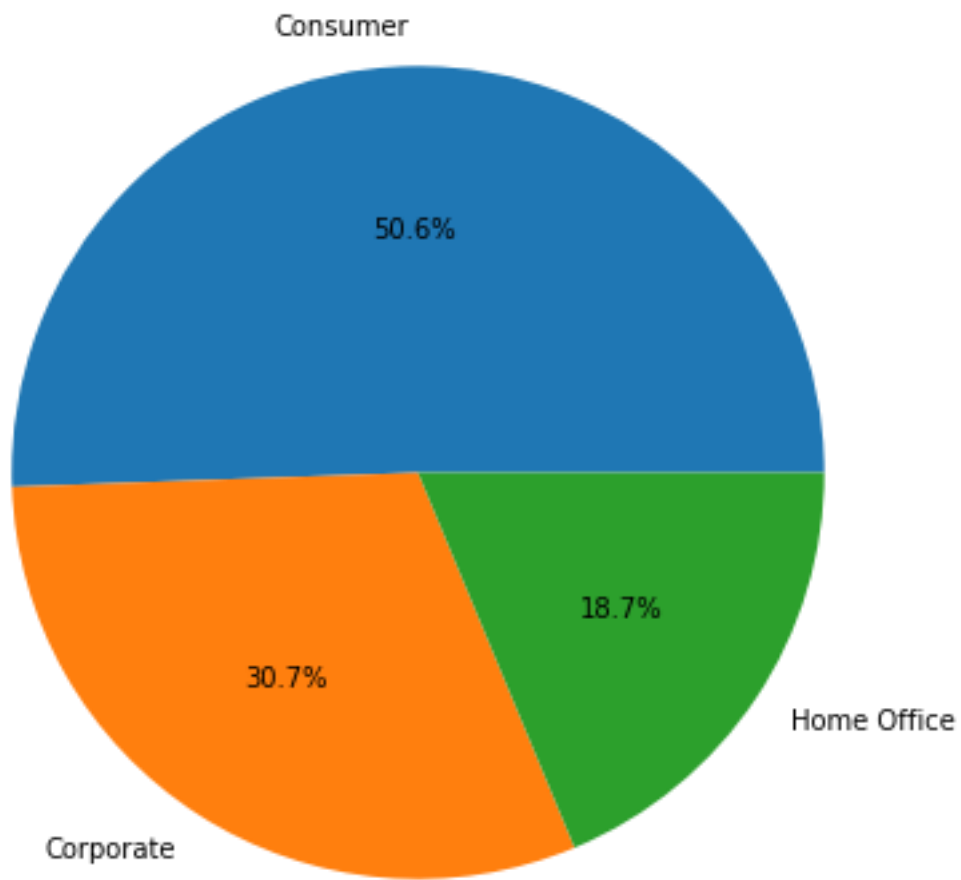
*In figure 2, This Company's sales were depicted to be generally strong in 2017, but the TECHNOLOGICAL APPLIANCES product category generated the most sales. Despite the extremely severe decline the company had in 2015, especially in the sales of office supplies, the trend category for technical equipment had the second-lowest loss in sales (48% drop from 2014). After experiencing a decline in technological appliances in 2015, the company had a dramatic surge of 58% in 2016 and as of 2017, it is the superstore giant's best-selling goods category. Despite the fact that the business is thriving, we can say that technological devices are the stronghold of superstore giant having experienced the most sale across the years*



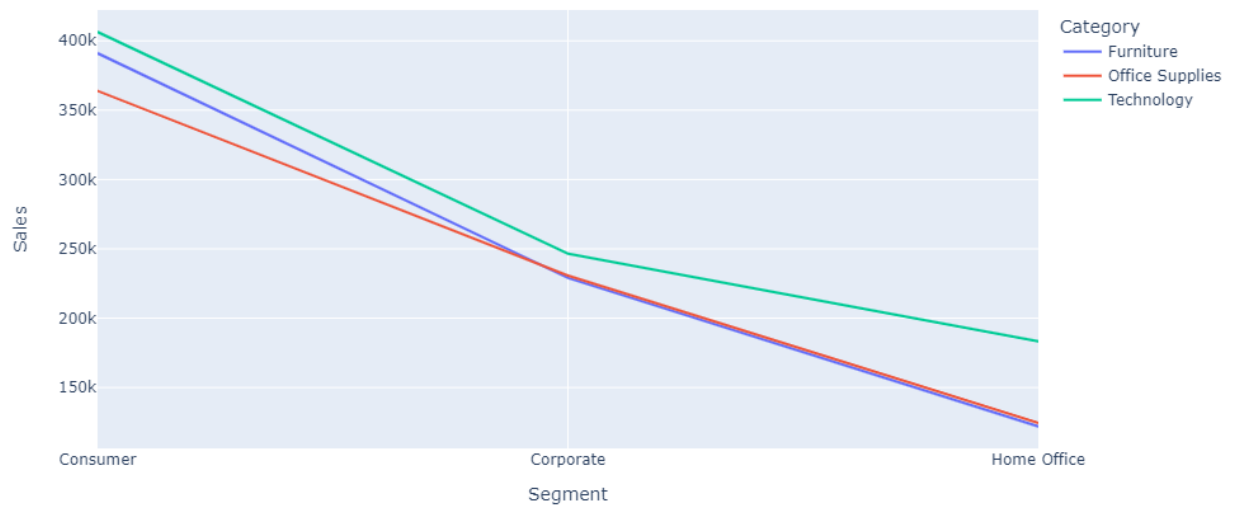
**WHO ARE YOU SELLING THE MOST TO? IS THE QUESTION THAT THIS ANALYSIS SEEKS TO ANSWER?**

*According to our trend in figure 3 and 4, individual consumers are the biggest buyers of technological gadgets, which also happen to be the categories of products that this superstore sells the most of. This superstore giant should always make sure that technological appliances are always available in their various outlets and that updates of various technological appliances are also available as this is what attracts their client base the most in order to secure future growth in sales.*

## ANNUAL SALES PER CUSTOMER SEGMENT MADE



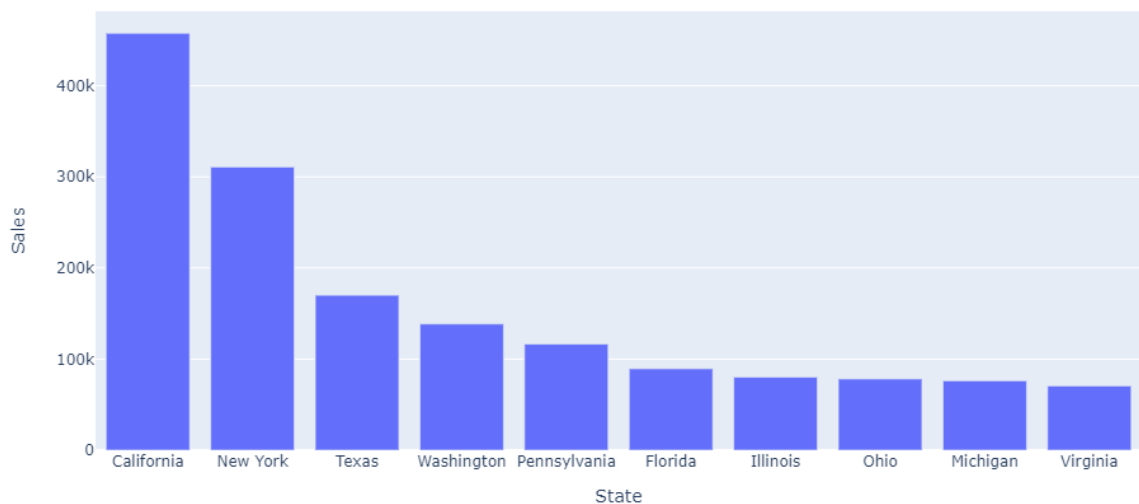
Annual sales\_by\_customer\_segment\_across\_product categories



***WHERE DO YOU SELL TO THE MOST? IS THE QUESTION THAT THIS ANALYSIS TRY TO RESPOND TO?***

***According to our analysis in figure 5, the California location of this company has the highest sales. This could just be a result of the fact that this state has the highest population density in the country, giving its citizens the most purchasing power. In order to guarantee these sales, this company must always have their most purchased items available in sufficient number and of high quality in this areas.***

Top 10 State by Sales



## 6. CONCLUSION

*Have sales increased across all of the suggested variables that could have an impact on this superstore? Yes, that is the response to this question. Between 2016 and 2017, this superstore's sales increased significantly, especially as a result of people buying technical appliances in big quantities. We've found that the majority of this company's clients are individual consumers, most of whom are headquartered in California and have a keen interest in technology. There is a requirement for this product to always be of excellent quality, always available, and enhanced if necessary as a business owner in order to secure more future sales. Even when promoting new technology products, the advertising's content should be tailored to mostly this target audience. Finally, maintain solid customer relations to keep your current clientele and draw in new ones.*

## REFERENCES

*<https://www.businessnewsdaily.com/16012-sales-analytics.html>*

---