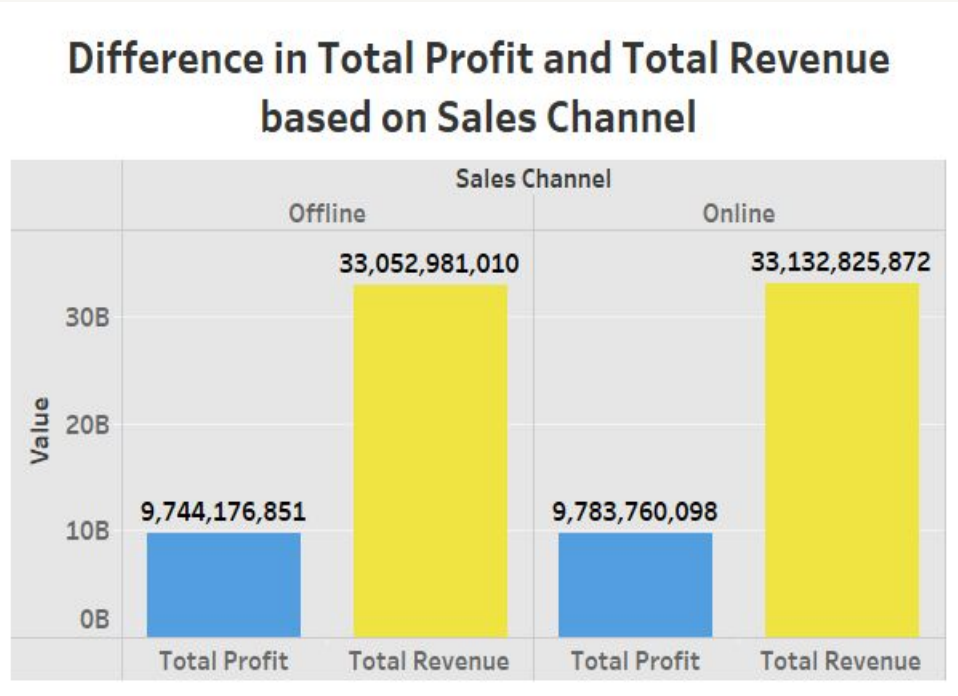
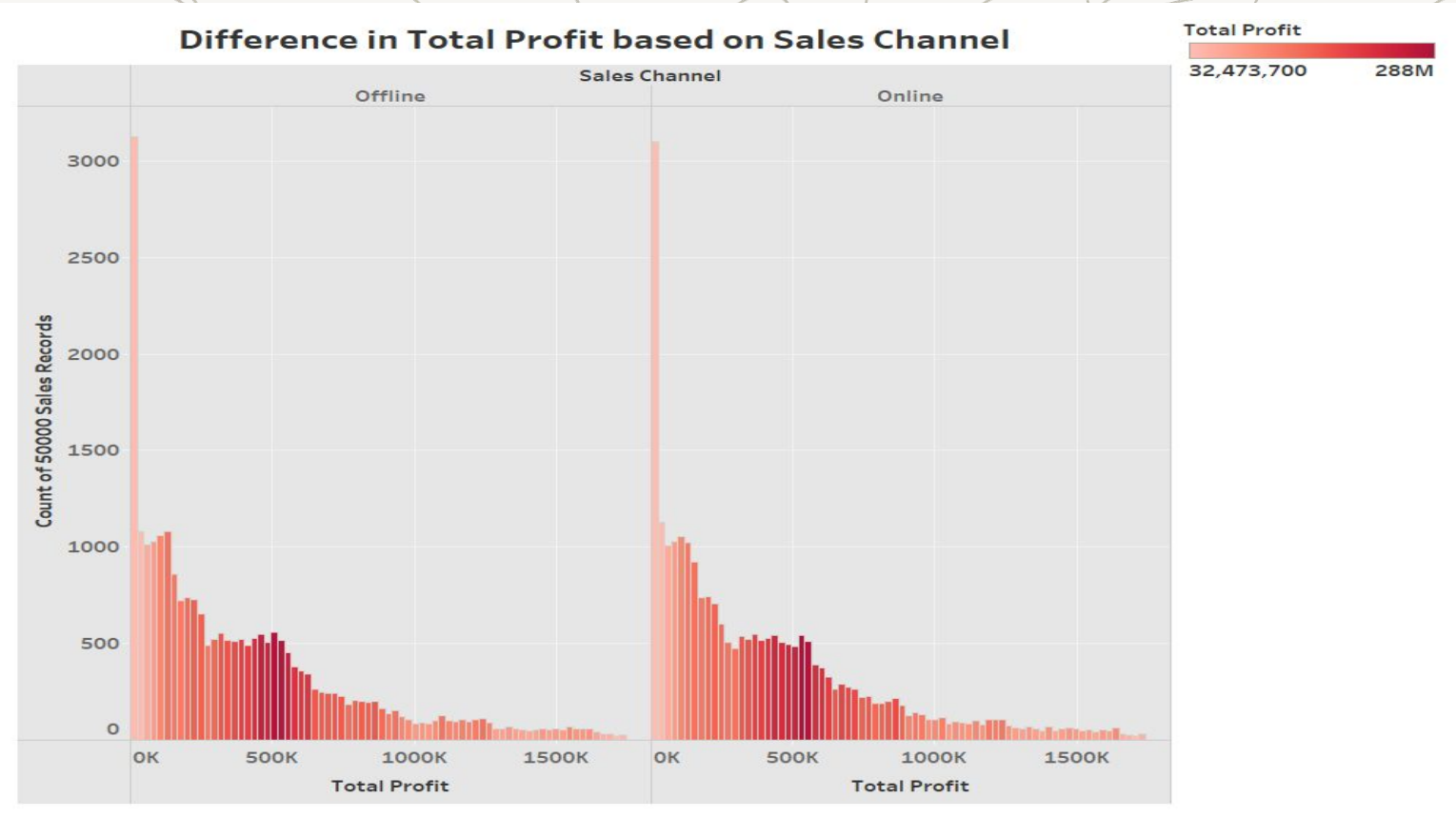


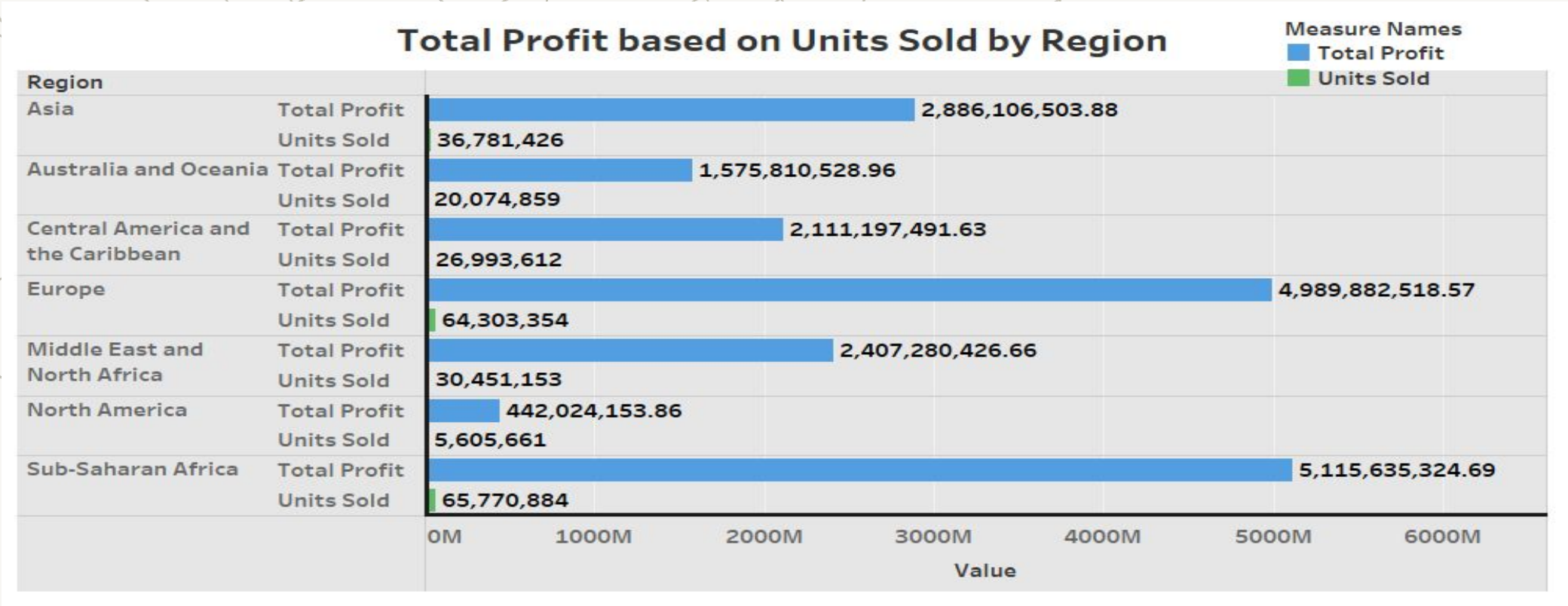
- Is there any significant difference in total revenue or Profit based on the Sales channel



The first Figure is the Difference in Total Profit based on Sales channel with the 50000 Sales Records. There are significantly two sales channels i.e., Offline and Online. Total Profit on both Offline and Online with number of records is given. The total Profit is differentiated based on the color scheme that is used. As the lighter red it is the least total profit as it goes darker the Total profit becomes higher. In Offline, the higher Total Profit is at the bin of 500k where the Sales Records are 550. In Online, the higher Total Profit is at the bin of 540k where the Sales Records are 510.

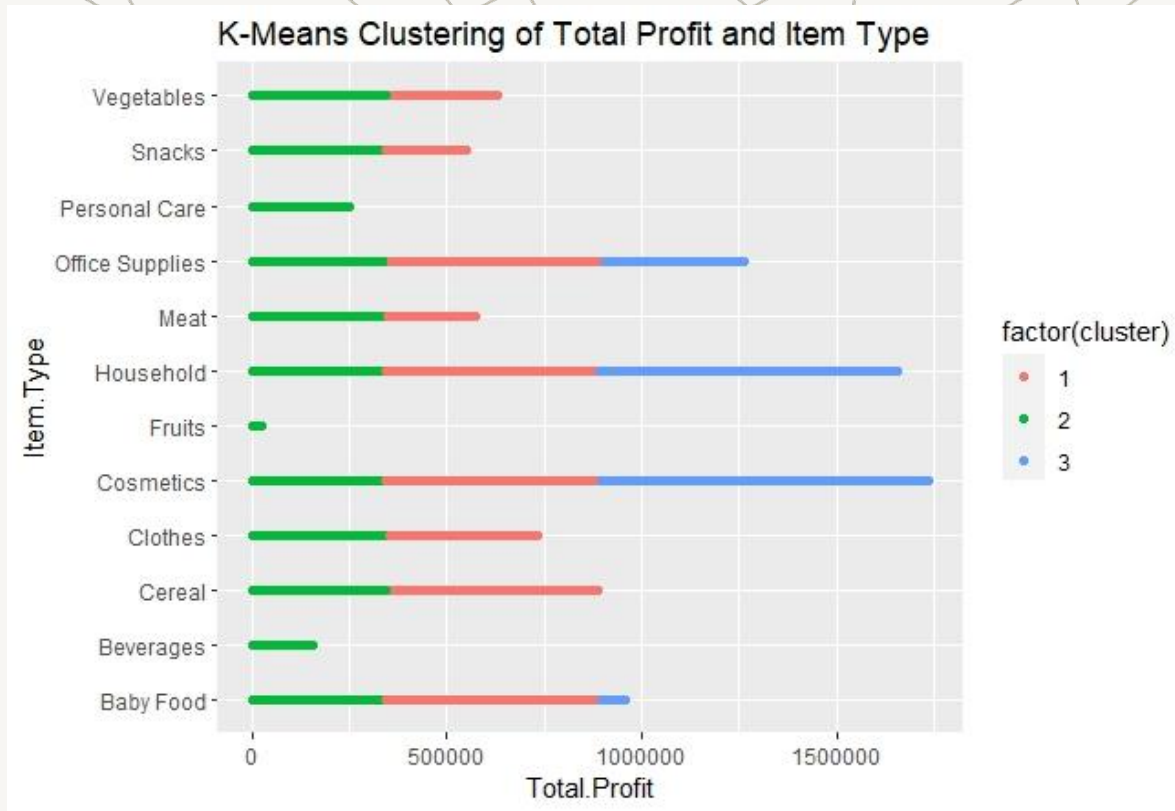
This Graph is the Difference in Total Profit and Total Revenue based on Sales channel. This gives the overview of Total Profit and Total Revenue based on Offline or Online. The Offline Sales channel has a significant difference with the Total Profit and Total Revenue, Total Revenue is higher. Total Revenue is higher in Online Sales channel as well.

- Are there any specific patterns in large or small orders impacting profitability?

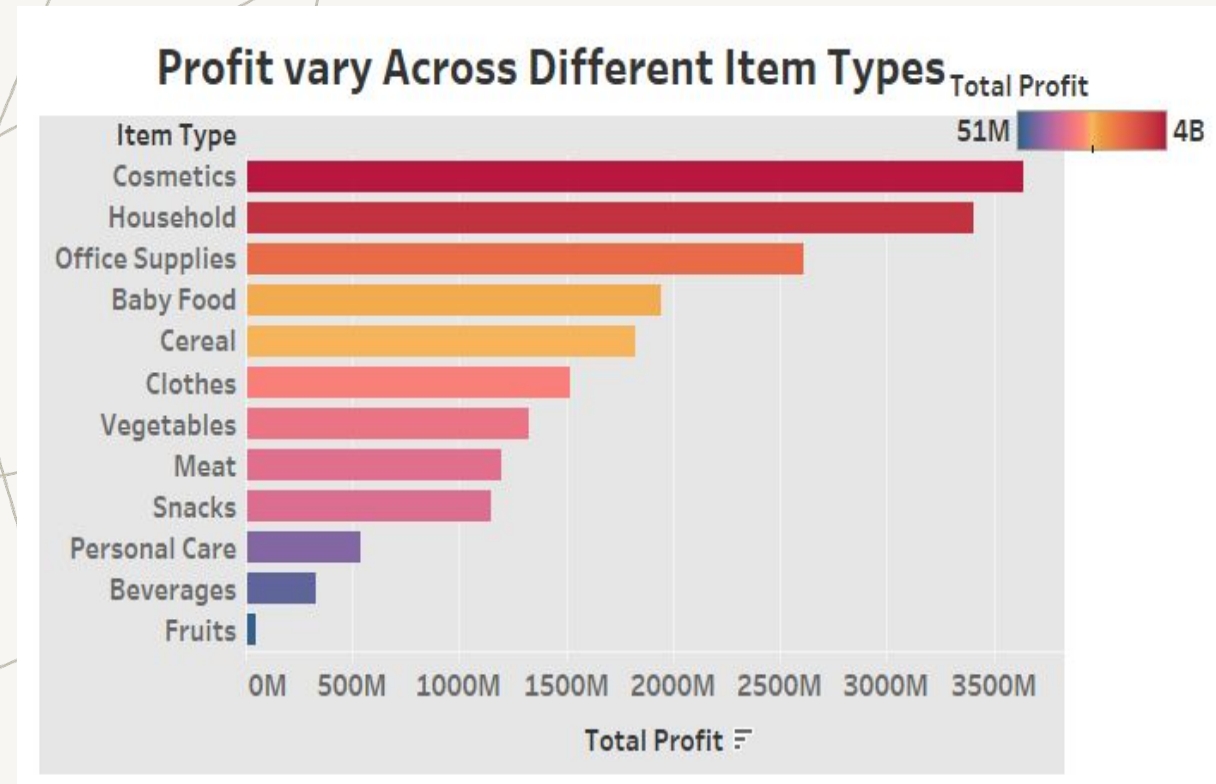


The figure is of Total Profit based on Units Sold by Region. There were 7 Regions taken in the data. For each region Total Profit and Units Sold is presented. Total Profit is higher in Sub-Sahara Africa while the Units Sold are 65,770,884. The least Total Profit is in North America while the Units Sold are 5,605,661. The smaller the order quantity, the lower is the Total profit. By this graph it is seen that when the order quantity is lower, the Total Profit is lower. The North America Region is having the least profit with less Units Sold. And the Sub-Sahara Region is having higher profit with more Units sold and it is followed by Europe region with slight difference in the Total Profit and Units Sold.

- How does the profit margin vary across different item types?

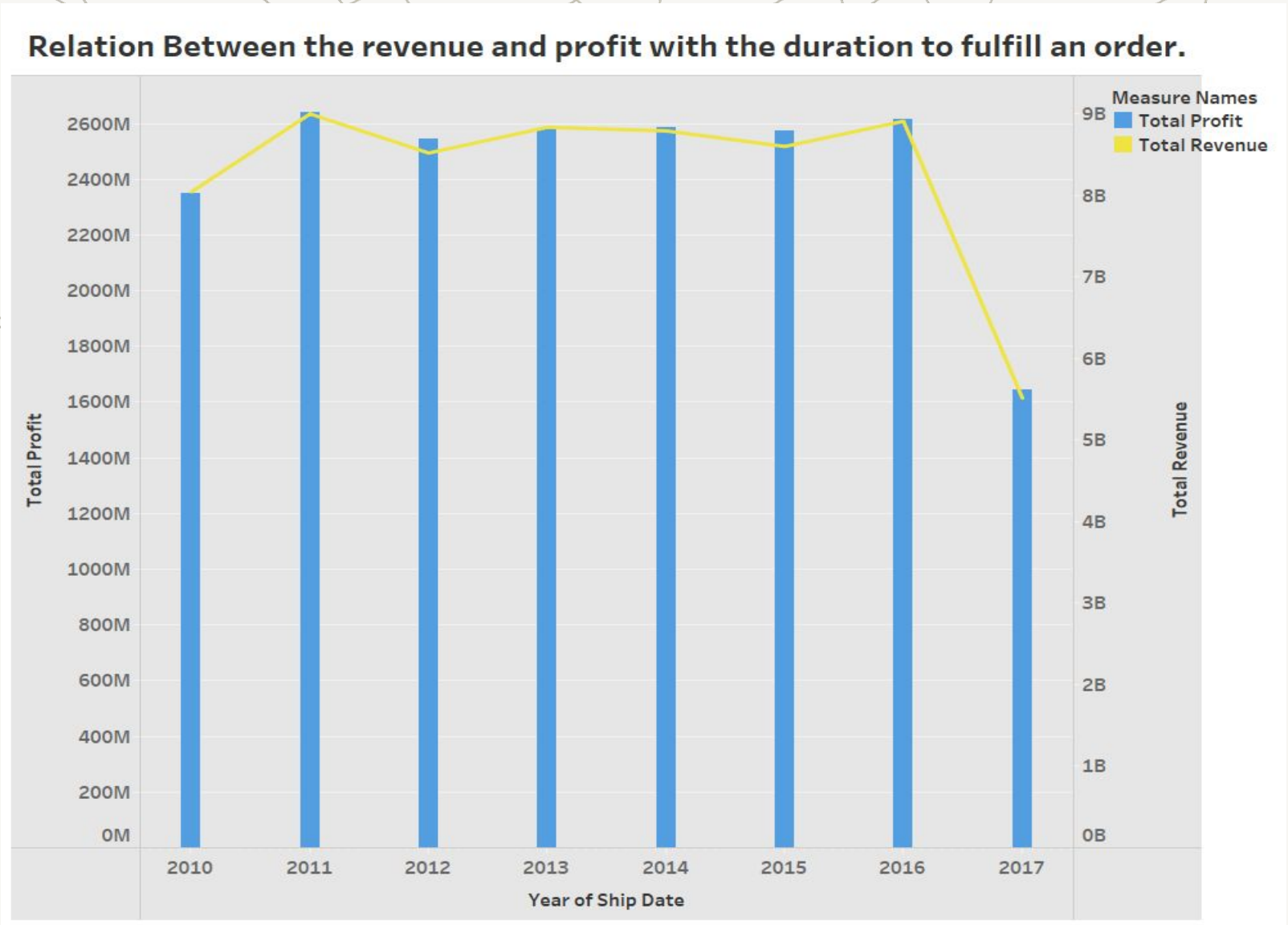


The figure is K-Means Clustering of Total Profit and Item type where there were 3 cluster factors. This is done in the R studio using k-means clustering. All the item types in the dataset are presented. The Cosmetics has the higher Total Profit while the fruits has the lower Total Profit.



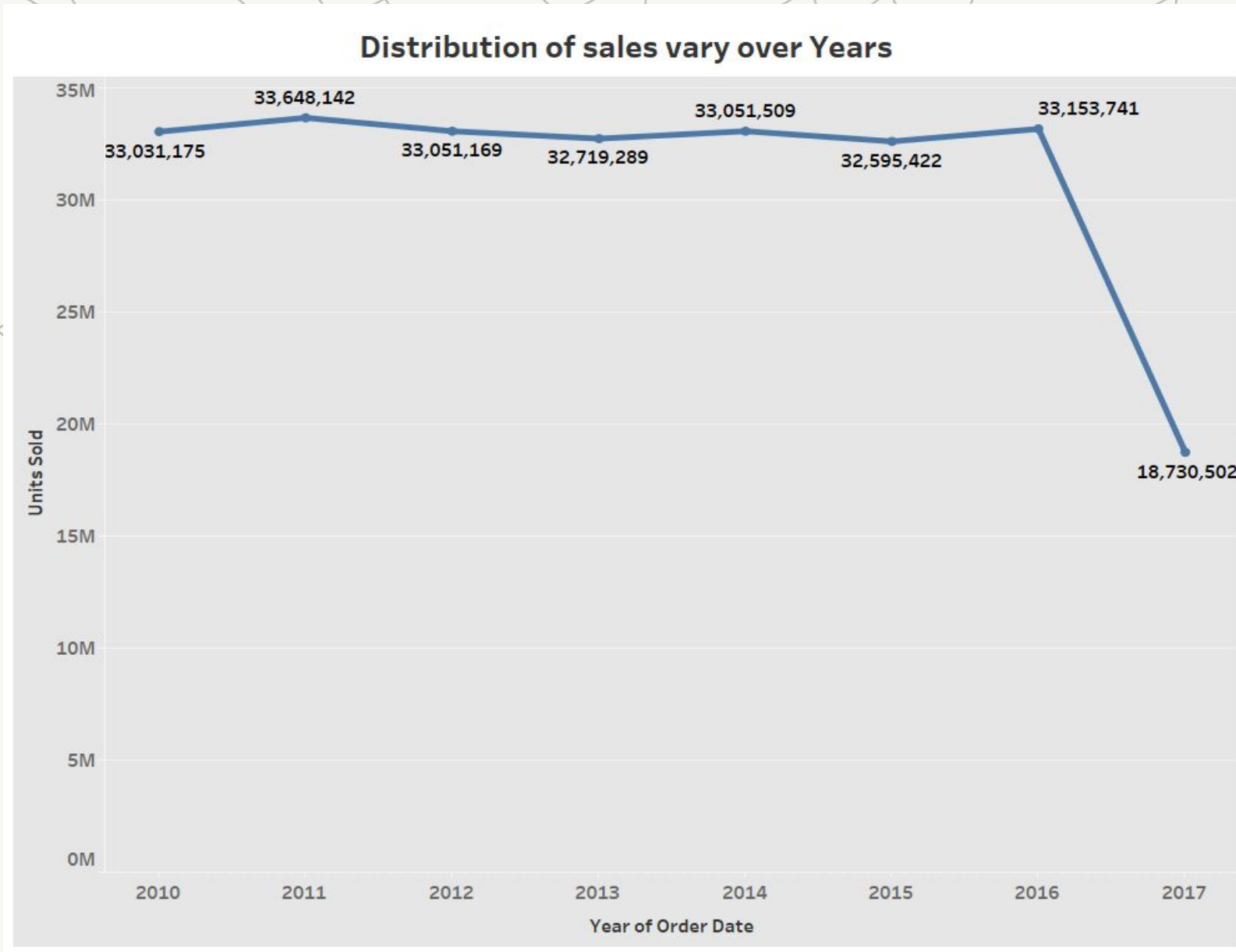
This graph is also done in Tableau. The graph is Profit varying across different Item Types. The Total Profit is differentiated based on the color of each Item type. The Item Types are arranged in Descending order. Where Cosmetics has the higher profit with 3600M while the fruits has the lower profit with 51M.

- Explain the correlation between the revenue and profit with the duration to fulfill an order.



The Graph is relation between the revenue and profit with the duration to fulfill an order. Total Profit is presented in bars with blue color and Total revenue is given in line with yellow color. These were given for every year from 2010 through 2017. The year 2011 has the higher profit and revenue while the year 2017 has the least profit and revenue.

- **How does the distribution of sales vary over different order dates?**



The graph is Distribution of Sales varying over years. This is a line graph which is used in plotting the sale over years of order date. The highest sales over the years is 33,648,142 in 2011 year. And the least sales are in year 2017 with 18,730,502 units sold.