# Analyzing Amazon SalesData

Deepak Kumar

# Introduction

Data Analysis by using Power Bi

Amazon Sales Data refers to sales. High performing seller and several other data points. Amazon sales data analysis focuses on the process of analyzing consumer behaviour, sales and several other attributes in order to make improved, data driven decisions. It is the key to successfully sustaining their business and earning profits and for this purpose, they analyze different matrics like sales, sales quantity, unit cost,discount sales over years etc.By analyzing different matrics, you will be able to increase and improve performance in terms of sales, items to be sold and discount rates etc.

Analyzing of the sales data the main factor that contributes the sellers improving their business and increase their revenue. They can better understand the market trends and customers buying behaviours and help them what the customer really want.

# Problem Statement

Sales management has gained importance to meet increasing compitition and the need for improve methods of distribution to rduce cost and to increase profits. Sales management today is the most important function in a comercial and business enterprise.
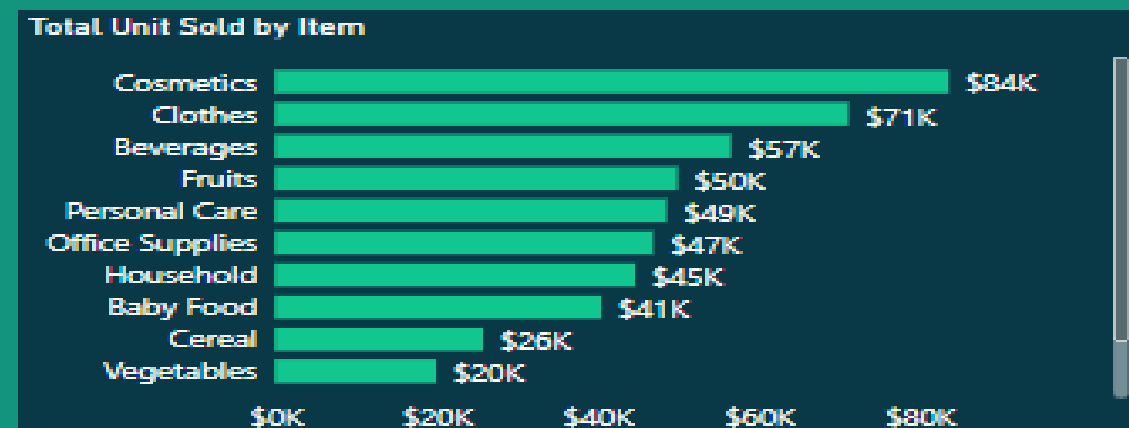
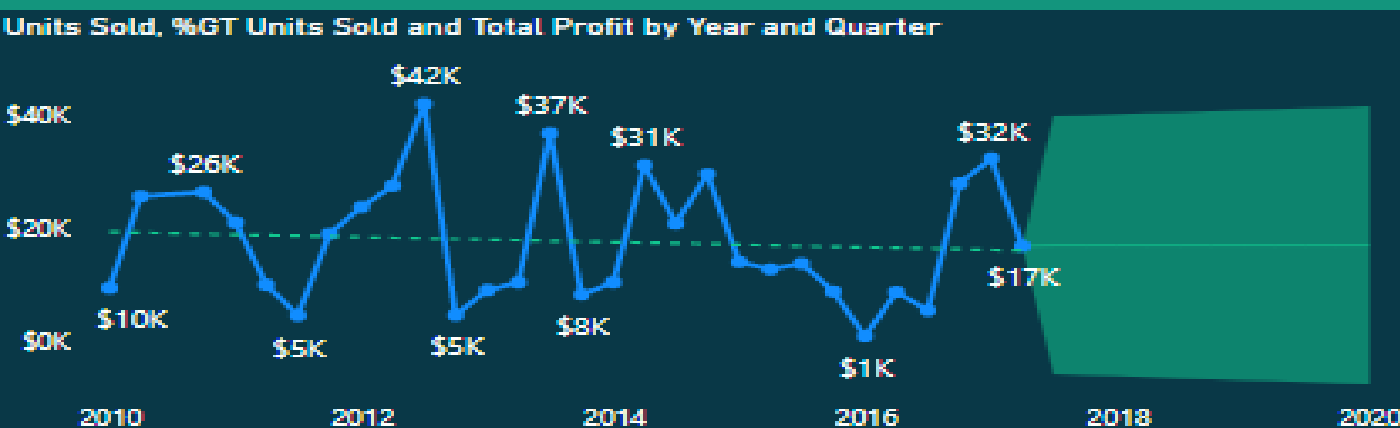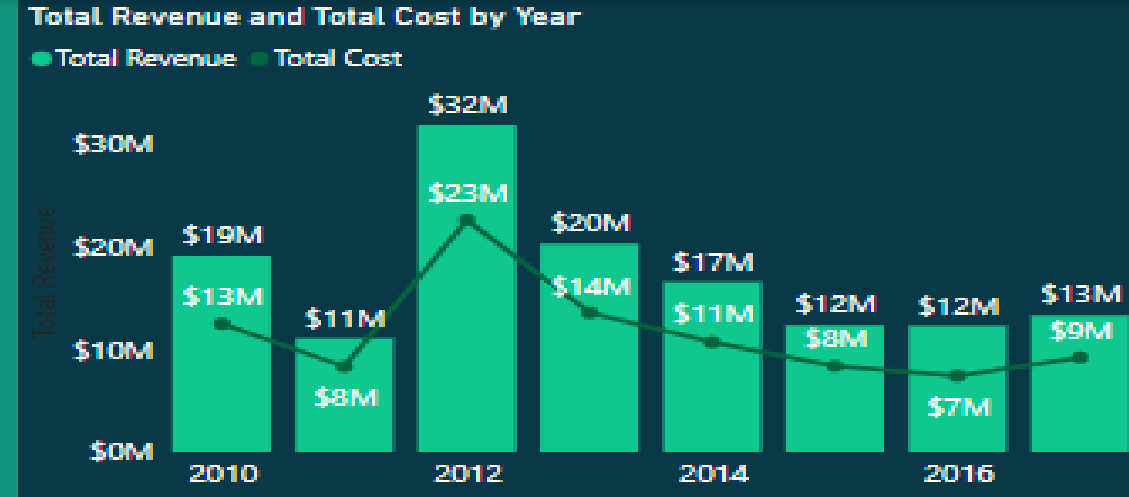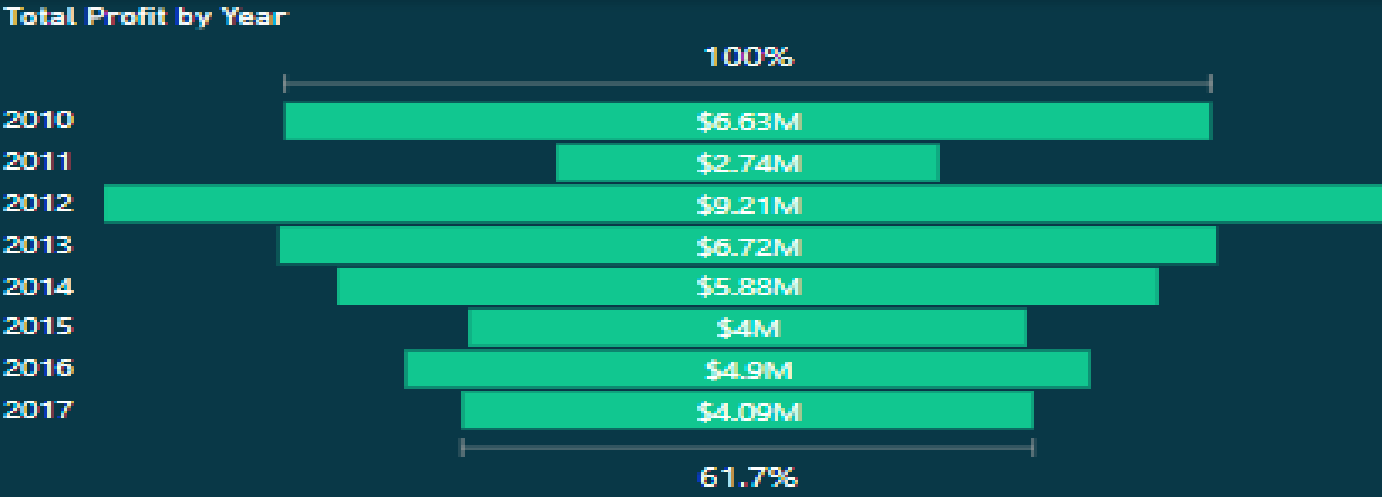Do ETL : Extract – Transform – Load some Amazon dataset and find Sales – trend - - > Month – wise, Year – wise , Yearly – moth wise.

Find key metrics and factors and show the meaningfull relationship between attributes.
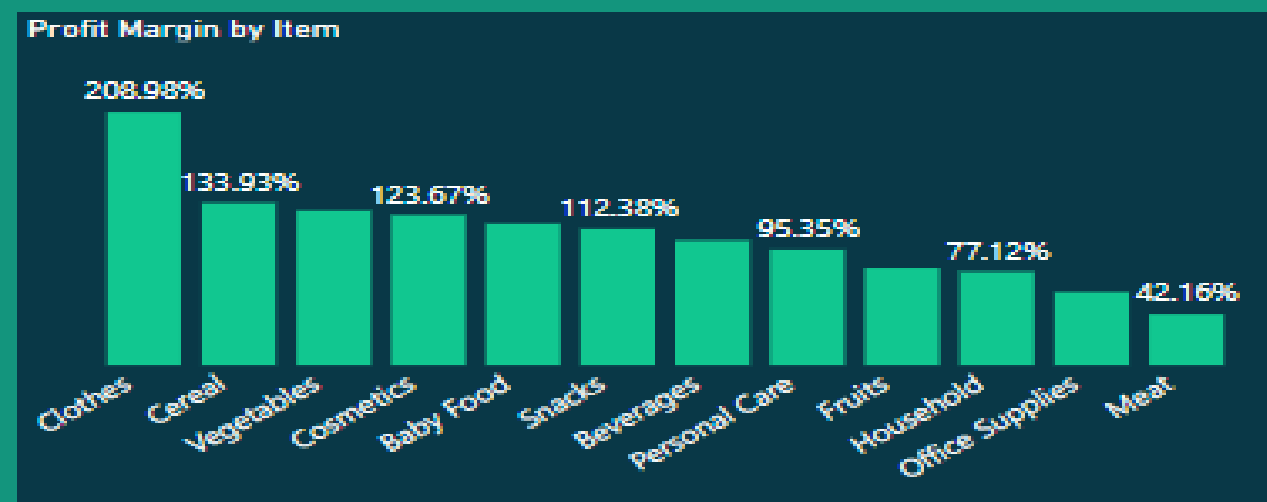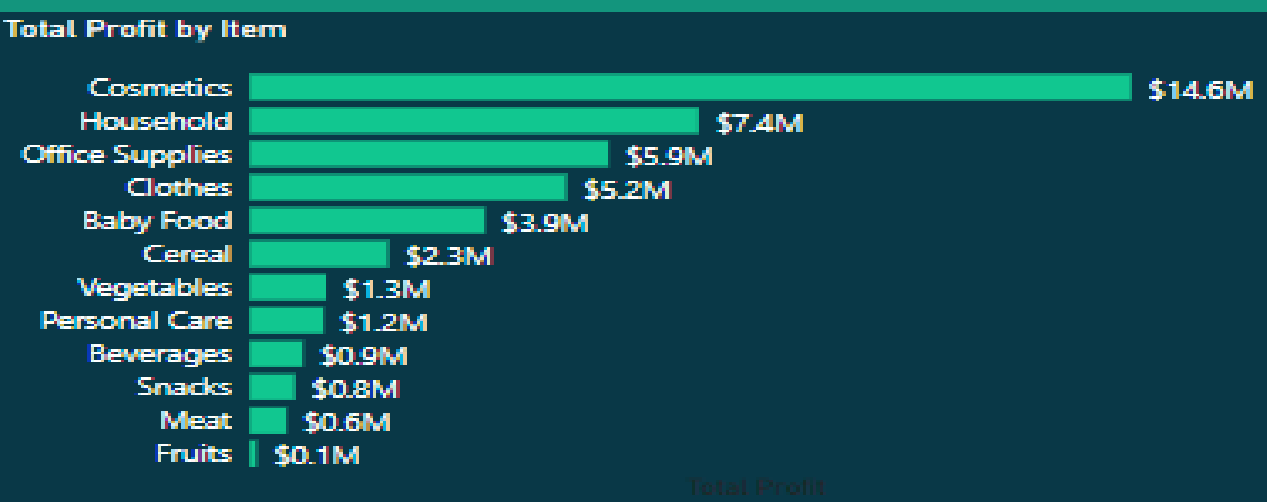
Do your own research and come up with your findings

# Dataset Information

This is a Sales related dataset that contains information like Sales, Cost, Sales Price, List Prices, Sales Margins, Sales Unit etc.

# Total Profit by Year

| Year | Profit |
|------|--------|
| 2010 | $6.63M |
| 2011 | $2.74M |
| 2012 | $9.21M |
| 2013 | $6.72M |
| 2014 | $5.88M |
| 2015 | $4M |
| 2016 | $4.9M |
| 2017 | $4.09M |

100%

61.7%

# Total Revenue and Total Cost by Year

● Total Revenue  ● Total Cost

$30M

$32M
$23M
$20M
$19M
$17M
$13M
$14M
$12M $12M $13M
$11M $11M
$10M
$8M
$9M
$8M
$7M

$0M

2010    2012    2014    2016

# Units Sold, %GT Units Sold and Total Profit by Year and Quarter

$40K

$42K
$37K
$32K
$31K
$26K
$20K
$17K
$10K
$8K
$5K $5K
$0K
$1K

2010    2012    2014    2016    2018    2020

# Total Unit Sold by Item

| Item | Units |
|------|-------|
| Cosmetics | $84K |
| Clothes | $71K |
| Beverages | $57K |
| Fruits | $50K |
| Personal Care | $49K |
| Office Supplies | $47K |
| Household | $45K |
| Baby Food | $41K |
| Cereal | $26K |
| Vegetables | $20K |

$0K    $20K    $40K    $60K    $80K

In this visual I'm trying to do the total profit by year and  $9,213,010 , is the highest  Profit ,  and $6,715,420 is the 2nd  highest Profit, here Profit trend down , resulting in a 36.399% decrease between 2013 to 2011. and after this year the profit trend is continuously decreasing. And in total unit sold by item  $83,718, Cosmetics has the highest sales and Meat which had the lowest sales at $10,765.

## % Profit by Item

- Clothes: 432.30%
- Cereal: 159.59%
- Vegetables: 139.30%
- Cosmetics: 119.38%
- Baby Food: 93.29%
- Snacks: 69.57%
- Beverages: 33.09%

## Total Unit Sold by Item

- Cosmetics: $84K
- Clothes: $71K
- Beverages: $57K
- Fruits: $50K
- Personal Care: $49K
- Office Supplies: $47K
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- Snacks: $14K
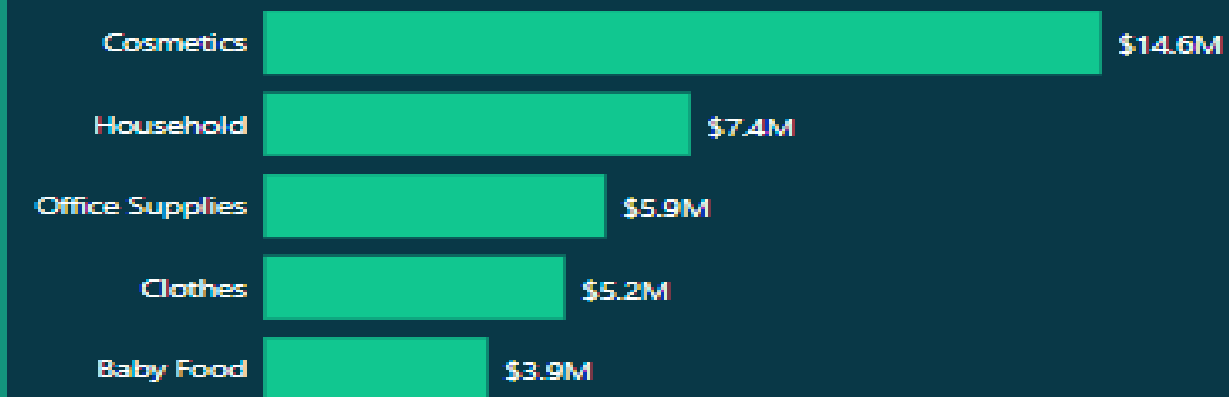- Meat: $11K

## Total Profit by Item

- Cosmetics: $14.6M
- Household: $7.4M
- Office Supplies: $5.9M
- Clothes: $5.2M
- Baby Food: $3.9M
- Cereal: $2.3M
- Vegetables: $1.3M
- Personal Care: $1.2M
- Beverages: $0.9M
- Snacks: $0.8M
- Meat: $0.6M
- Fruits: $0.1M

## Profit Margin by Item

- Clothes: 208.98%
- Cereal: 133.93%
- Vegetables: 123.67%
- Cosmetics: 112.38%
- Baby Food: 95.35%
- Snacks: 77.12%
- Office Supplies: 42.16%

In this Stacked bar chart and clustered column chart visual. We can analyze Sales and Profit by Items. $83,718 Cosmetics had the highest sales and was 14% higher than clothes,which had the 2nd highest sales at $71,260.The margin of profit by items 208.98% cloths which had the highest margin and 75% higher than cereal which had the the 2nd highest margin in this list.At $14,556,048 Cosmetics had the highest profit and $7,412,605 Household is the 2nd highest profit.

## Total 5 Profit by Item

| Item | Profit |
|---|---|
| Cosmetics | $14.6M |
| Household | $7.4M |
| Office Supplies | $5.9M |
| Clothes | $5.2M |
| Baby Food | $3.9M |

## Bottom 5 Sales by Item

| Item | Sales |
|---|---|
| Baby Food | $41K |
| Cereal | $26K |
| Vegetables | $20K |
| Snacks | $14K |
| Meat | $11K |

## Bottom 5 Sales by Item

| Item | Sales |
|---|---|
| Baby Food | $41K |
| Cereal | $26K |
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| Meat | $11K |

## Bottom 5 Profit by Item
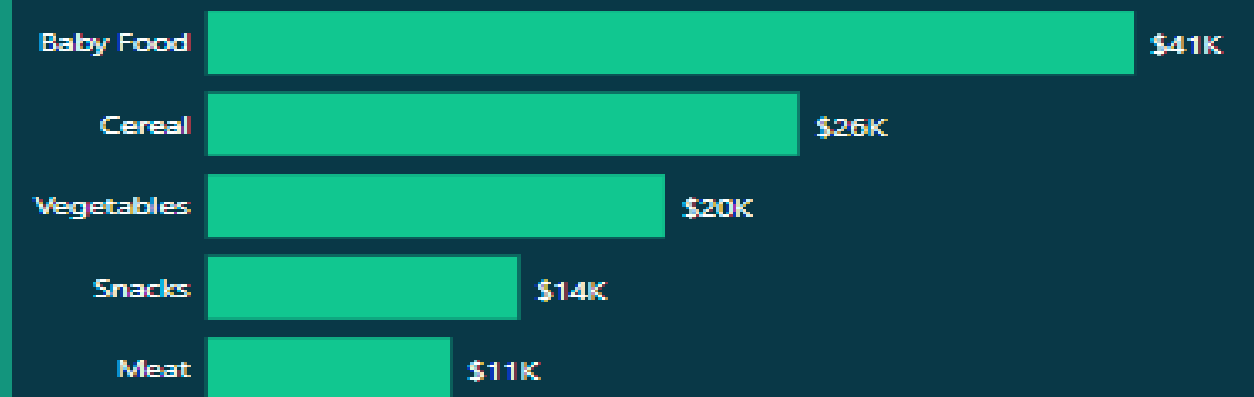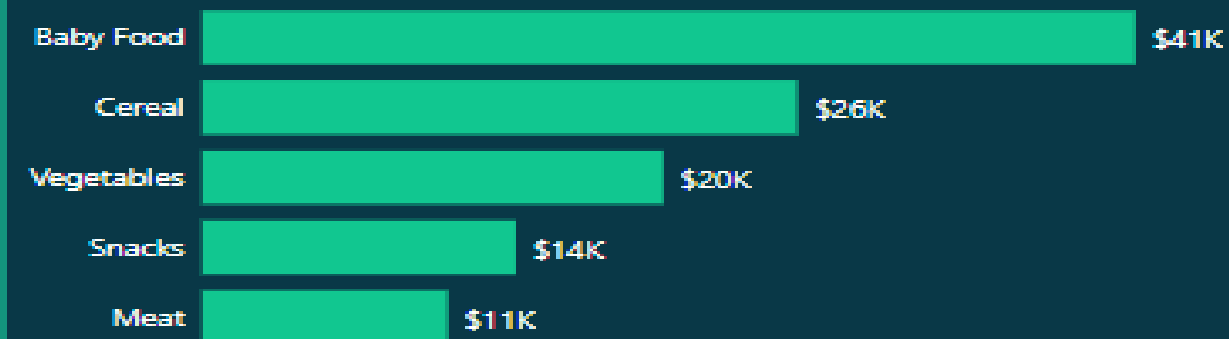
| Item | Profit |
|---|---|
| Personal Care | $1.22M |
| Beverages | $0.89M |
| Snacks | $0.75M |
| Meat | $0.61M |
| Fruits | $0.12M |
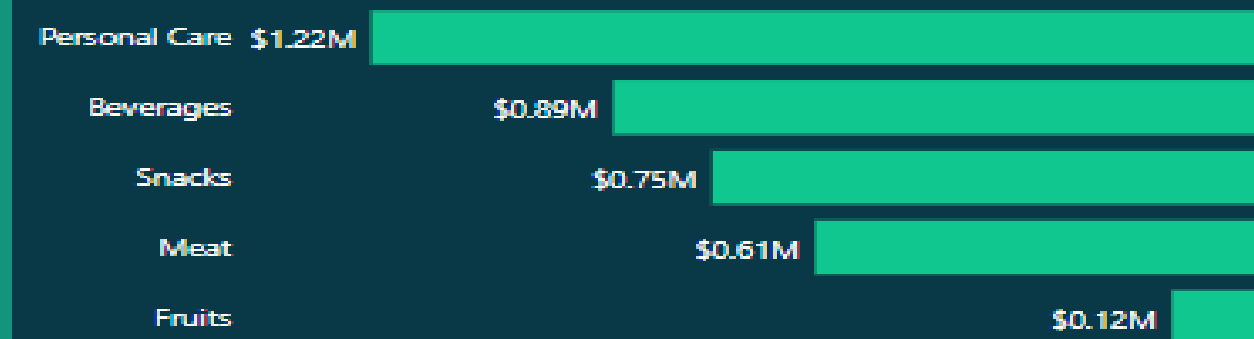
At $14,556,048 Cosmetics had the highest Profit was 73.29% higher than Baby Food which had 5th highest profit at $3,886,643. $10675 Meat had the lowest Sales item was 72.45% lower than Baby Food. $83,718 Cosmetics had the highest sales and was 14% higher than clothes,which had the 2nd highest sales at $71,260.

| Year | | Quater | | Month | | Day | | Day_Of_Week | |
|---|---|---|---|---|---|---|---|---|---|
| 2012 | | 3 | | 9 | | 17 | | | |

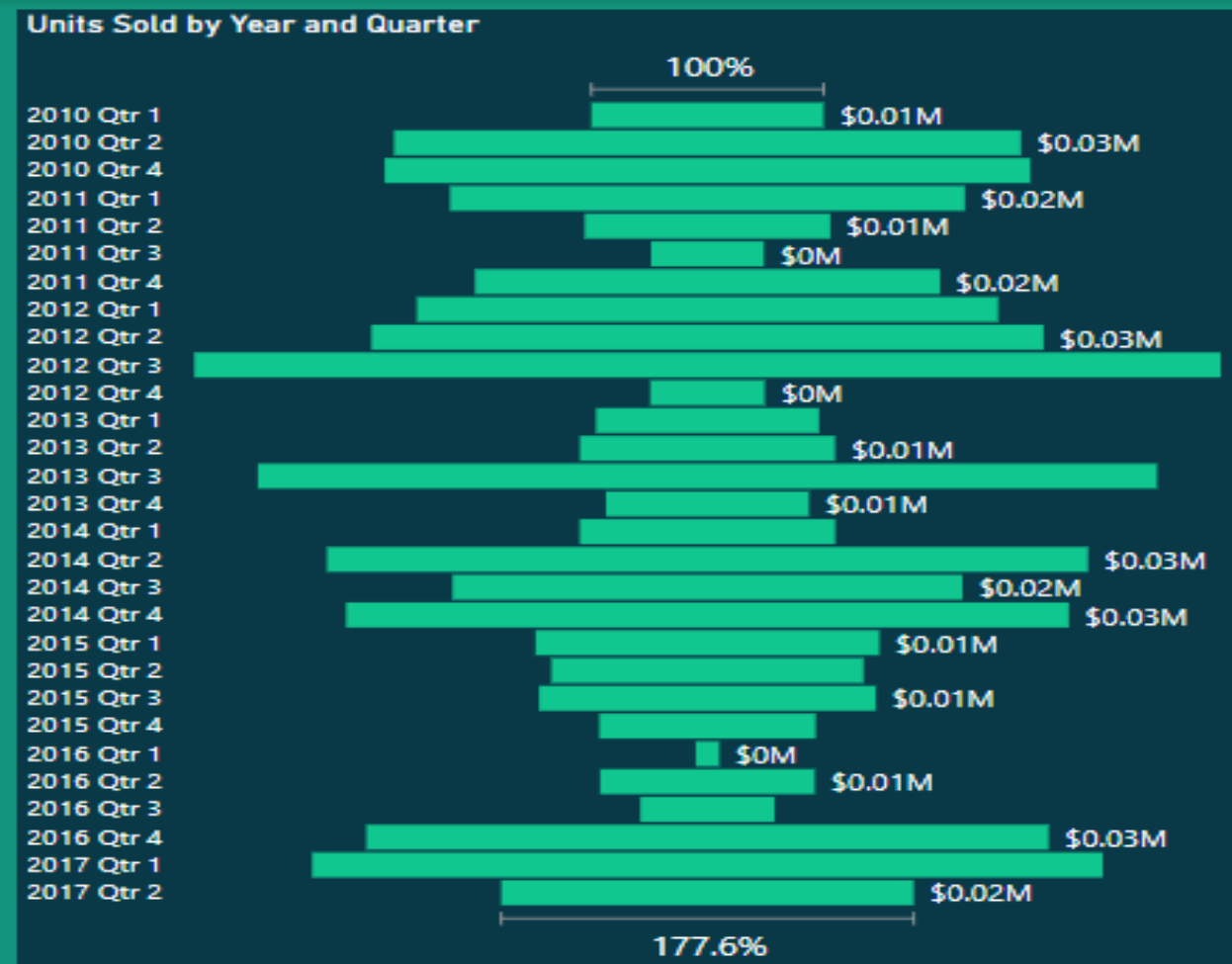| | 2012 | 3 | 9 | 17 | 2 |
|---|---|---|---|---|---|
| | $9,213,010.120000001 | $3,398,369.010000002 | $2,084,889.030000001 | $1,505,888.07 | $1,505,888.07 |
| Total Profit | 2013 | 2 | 7 | 18 | |
| $44,168,198.39999998 | $6,715,420.039999995 | $2,887,940.639999999 | $1,065,073.62 | $579,000.96 | |
| | 2010 | 1 | 8 | | |
| | $6,629,567.430000002 | $2,167,965.750000001 | $248,406.36 | | |

| Year | | Quater | | Month | | Day_Of_Week | | Day | |
|---|---|---|---|---|---|---|---|---|---|
| 2012 | | 3 | | 7 | | 3 | | | |

| | 2012 | 3 | 7 | 3 | 17 |
|---|---|---|---|---|---|
| | $97,967 | $41,995 | $22,646 | $13,990 | $8,082 |
| Total Unit Sold | 2014 | 2 | 9 | 1 | 31 |
| $512,871 | $92,040 | $27,507 | $16,545 | $8,656 | $5,908 |
| | 2013 | 1 | 8 | | |
| | $64,663 | $23,781 | $2,804 | | |

In this Decomposition Tree visual, We can analyze how much Sales and Profits were made from 2012 to 2017. Comparing 5 year, 2012 was the year in which highest Sale and Profits were made, which was $9,213,010 , $97,967 And it was a most made on Sales and Profit. Sales and Profit were very balanced in all four quarter but it was highest in quarter 3.September was the month in which highest sales and profit were recorded.

## Units Sold by Year and Quarter

100%

| Year Quarter | Value |
|---|---|
| 2010 Qtr 1 | $0.01M |
| 2010 Qtr 2 | $0.03M |
| 2010 Qtr 4 | |
| 2011 Qtr 1 | $0.02M |
| 2011 Qtr 2 | $0.01M |
| 2011 Qtr 3 | $0M |
| 2011 Qtr 4 | $0.02M |
| 2012 Qtr 1 | |
| 2012 Qtr 2 | $0.03M |
| 2012 Qtr 3 | |
| 2012 Qtr 4 | $0M |
| 2013 Qtr 1 | |
| 2013 Qtr 2 | $0.01M |
| 2013 Qtr 3 | |
| 2013 Qtr 4 | $0.01M |
| 2014 Qtr 1 | |
| 2014 Qtr 2 | $0.03M |
| 2014 Qtr 3 | $0.02M |
| 2014 Qtr 4 | $0.03M |
| 2015 Qtr 1 | $0.01M |
| 2015 Qtr 2 | |
| 2015 Qtr 3 | $0.01M |
| 2015 Qtr 4 | |
| 2016 Qtr 1 | $0M |
| 2016 Qtr 2 | $0.01M |
| 2016 Qtr 3 | |
| 2016 Qtr 4 | $0.03M |
| 2017 Qtr 1 | |
| 2017 Qtr 2 | $0.02M |

177.6%

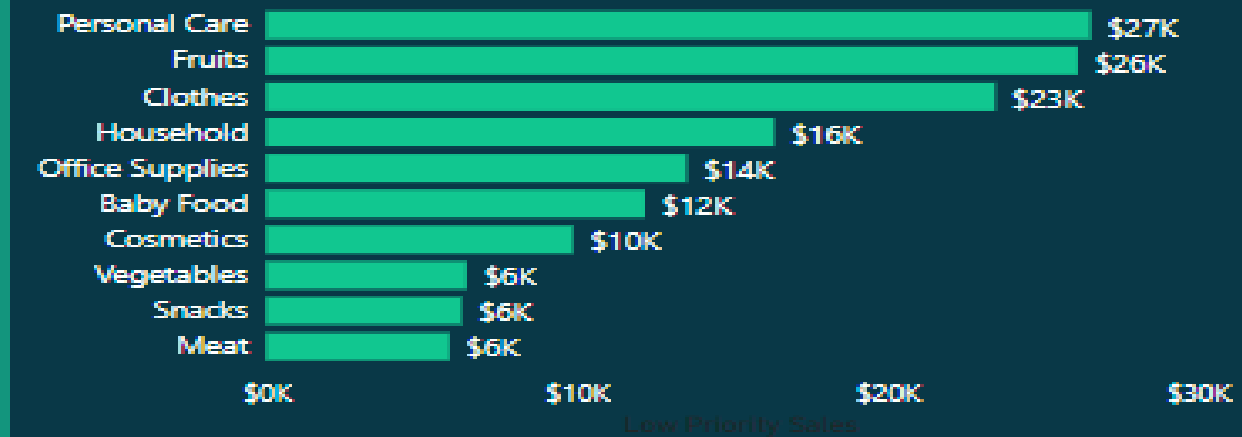| Order Date | First Item | Unit Cost | Unit Price |
|---|---|---|---|
| 2010-10-24 | Office Supplies | $524.96 | $651.2 |
| 2011-11-07 | Office Supplies | $524.96 | $651.2 |
| 2011-11-26 | Office Supplies | $524.96 | $651.2 |
| 2012-01-11 | Office Supplies | $524.96 | $651.2 |
| 2012-02-16 | Office Supplies | $524.96 | $651.2 |
| 2012-04-01 | Office Supplies | $524.96 | $651.2 |
| 2012-06-13 | Office Supplies | $524.96 | $651.2 |
| 2013-02-01 | Office Supplies | $524.96 | $651.2 |
| 2013-04-23 | Office Supplies | $524.96 | $651.2 |
| 2014-05-02 | Office Supplies | $524.96 | $651.2 |
| 2015-10-27 | Office Supplies | $524.96 | $651.2 |
| 2016-12-06 | Office Supplies | $524.96 | $651.2 |
| 2010-12-30 | Household | $502.54 | $668.2 |
| 2011-04-23 | Household | $502.54 | $668.2 |
| 2012-01-05 | Household | $502.54 | $668.2 |
| 2012-02-10 | Household | $502.54 | $668.2 |
| 2012-05-26 | Household | $502.54 | $668.2 |
| 2012-10-21 | Household | $502.54 | $668.2 |
| 2014-11-06 | Household | $502.54 | $668.2 |
| Total | Baby Food | $19,104.80000000001 | $27,676.1300000000 |

In this visual we can analyze how much total Unit Sold by Year and Quarter $41,995 is the highest unit sold in Quarter 3 , 2012 was 12.39% higher than 2nd highest quarter 3 , 2013 Sales.
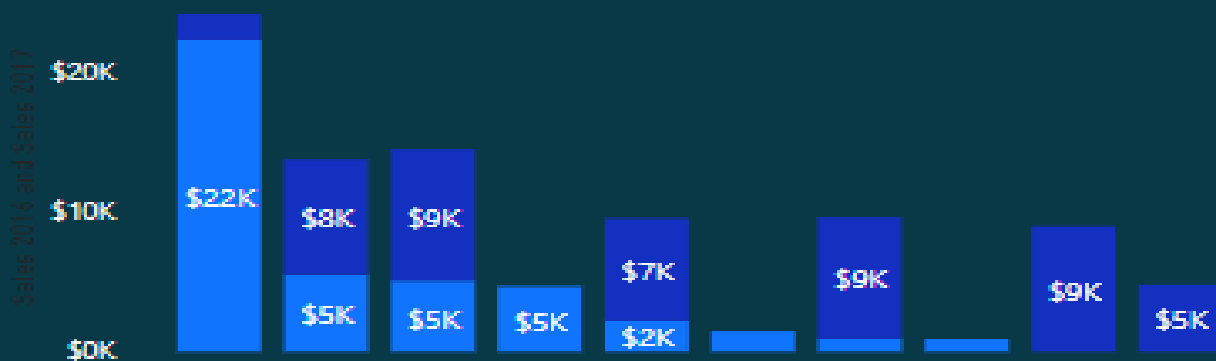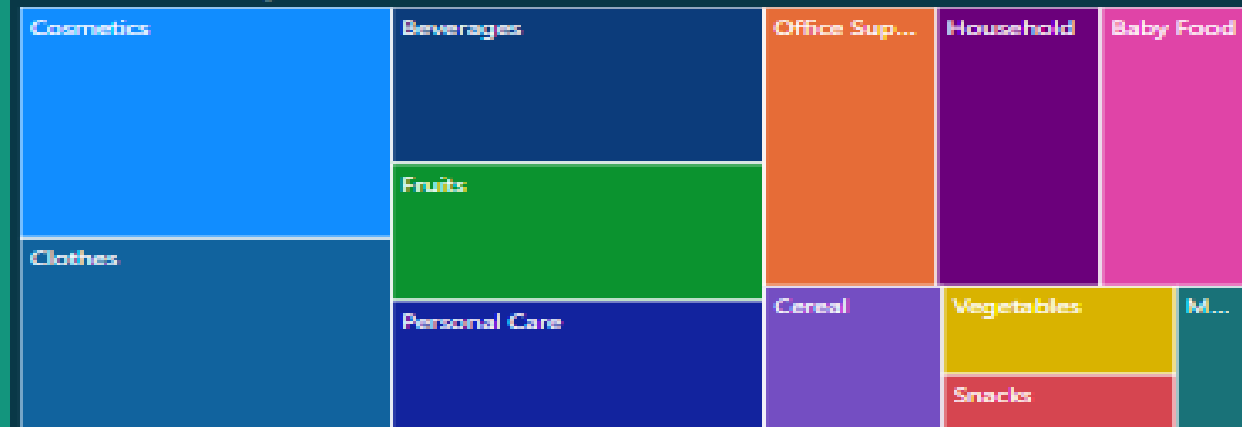
# High Priority Sales by Item

| Item | Sales |
|---|---|
| Cosmetics | $42K |
| Baby Food | $20K |
| Cereal | $19K |
| Household | $17K |
| Clothes | $16K |
| Fruits | $10K |
| Beverages | $9K |
| Office Supplies | $9K |
| Vegetables | $8K |
| Personal Care | $3K |

# Low Priority Sales by Item

| Item | Sales |
|---|---|
| Personal Care | $27K |
| Fruits | $26K |
| Clothes | $23K |
| Household | $16K |
| Office Supplies | $14K |
| Baby Food | $12K |
| Cosmetics | $10K |
| Vegetables | $6K |
| Snacks | $6K |
| Meat | $6K |
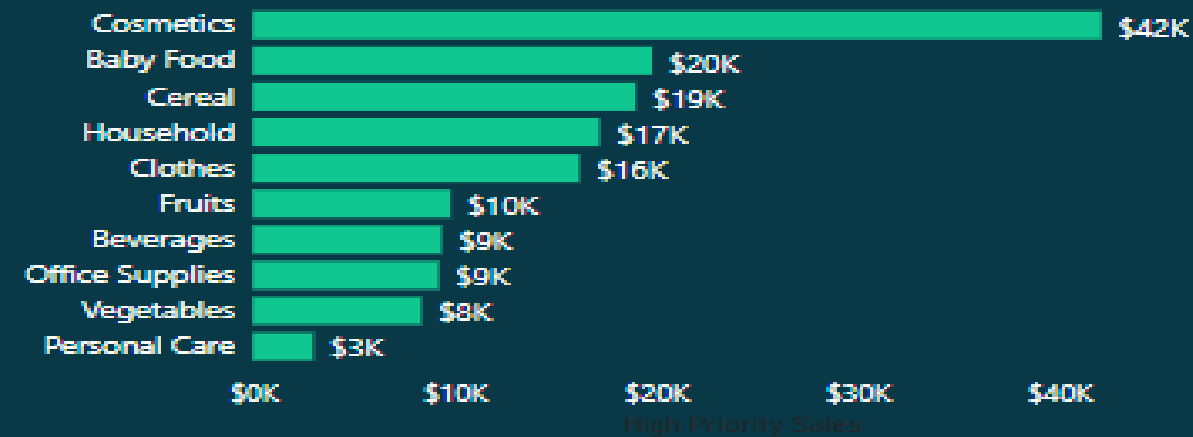
# Sales 2016 and Sales 2017 by Item

● Sales 2016  ● Sales 2017

$22K, $8K, $9K, $5K, $5K, $5K, $7K, $2K, $9K, $9K, $5K

# Total Unit Sold by Item

Cosmetics, Beverages, Office Sup..., Household, Baby Food, Fruits, Clothes, Personal Care, Cereal, Vegetables, M..., Snacks

In this visual we can analyze High priority item and Low priority item. $42,112 Cosmetic was the higher priority item 92.94% higher than Personal care $3015 which is the last priority sales item.and in Stacked column chart, comparing sales between 2016 to 2017.At $22,308 Cosmetic in 2016 is the 98.16% higher than the $1015 Cosmetic in 2017.

# Thank You