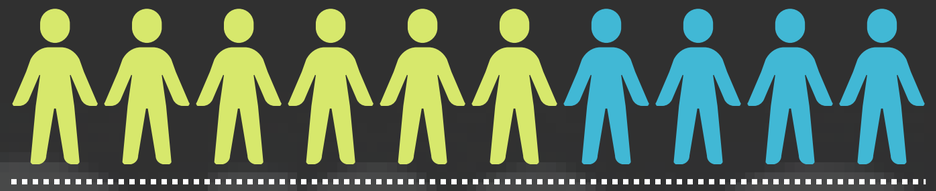


AMAZON SALES REPORT

INTRODUCTION

In the era of digital transformation, Amazon has emerged as a global e-commerce giant, revolutionizing the way consumers shop and businesses operate. With a vast and diverse product portfolio, extensive geographical reach, and innovative sales channels, Amazon's sales data offers a rich source of insights into consumer behavior, market trends, and operational efficiency.

This report delves into an extensive analysis of Amazon's sales data between (2010-2017), encompassing a variety of attributes such as regions, countries, item types, sales channels, order priorities, and key financial metrics. By leveraging this data, I aim to uncover significant patterns and trends that can inform strategic decisions and enhance business performance.

MAIN OBJECTIVES

Geographical Analysis

- Analiazing sales, costs,revenue and profits across different regions and countries to identify top-performing and underperforming markets.

Evaluate Sales Channel Performance

- Comparing online and offline sales channels in terms of revenue, cost, profit, and shipping durations and Identify the more efficient and profitable sales channel.

Analyze Sales Trends

- Identify monthly, yearly, and yearly month-wise sales trends to understand seasonality and growth patterns.

Product Performance and Order Priorities

- Determine the best-selling and least-selling products.Analyze profit margins for different product types to identify the most profitable items.

And

Examine the impact of order priority on sales, profits, and shipping durations.

Have a Look Into Few Rows of Amazon Sales Dataset

Region	Country	Item Type	Sales Channel	Order Priority	Order Date	Order ID	Ship Date	Units Sold	Unit Price	Unit Cost	Total Revenue	Total Cost	Total Profit
Australia and Oceania	Tuvalu	Baby Food	Offline	H	5/28/2010	669165933	6/27/2010	9925	255.28	159.42	2533654.00	1582243.50	951410.50
Central America d the Caribbean	Grenada	Cereal	Online	C	8/22/2012	963881480	9/15/2012	2804	205.70	117.11	576782.80	328376.44	248406.36
Europe	Russia	Office Supplies	Offline	L	5/2/2014	341417157	5/8/2014	1779	651.21	524.96	1158502.59	933903.84	224598.75
Sub-Saharan Africa	Sao Tome and Principe	Fruits	Online	C	6/20/2014	514321792	7/5/2014	8102	9.33	6.92	75591.66	56065.84	19525.82
Sub-Saharan Africa	Rwanda	Office Supplies	Offline	L	2/1/2013	115456712	2/6/2013	5062	651.21	524.96	3296425.02	2657347.52	639077.50

DATASET STATISTICS

Dataset name: Amazon sales
Time Period : 2010-2017

Dataset statistics

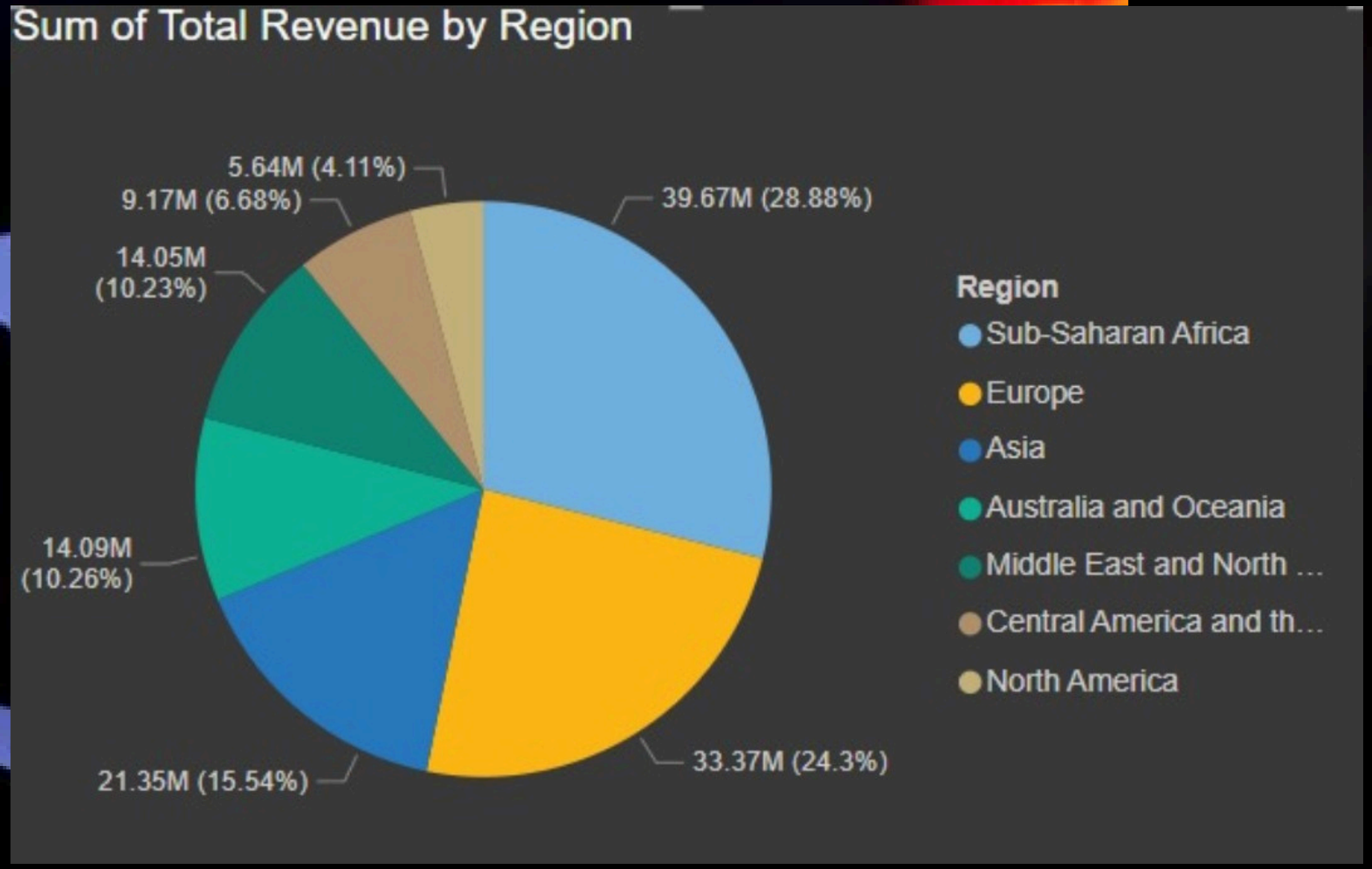
Number of variables	14
Number of observations	100
Missing cells	0
Missing cells (%)	0.0%
Duplicate rows	0
Duplicate rows (%)	0.0%
Total size in memory	11.1 KiB
Average record size in memory	113.3 B

Variable types

Categorical	4
Text	1
DateTime	2
Numeric	7

ANALYSIS OF SUM OF TOTAL REVENUE BY EACH REGION

Region	Total Revenue
Sub-Saharan Africa	39672031.43
Europe	33368932.11
Asia	21347091.02
Australia and Oceania	14094265.13
Middle East and North Africa	14052706.58
Central America and the Caribbean	9170385.49
North America	5643356.55

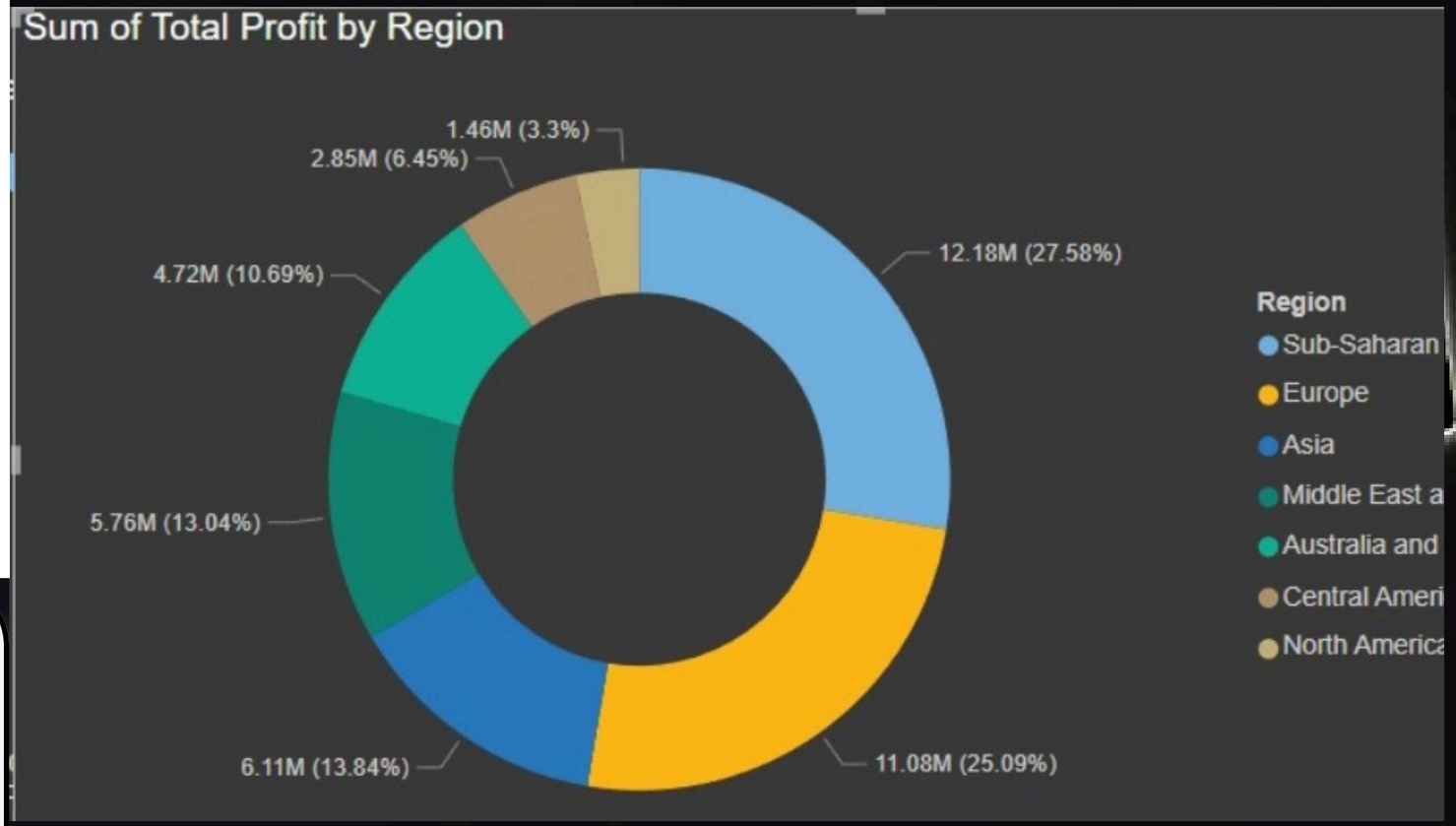


CONCLUSION

Maximum Revenue Generated By :
Sub-Saharan Africa: 39.67 M
Minimum Revenue Generated By :
North America : 5.64 M

ANALYSIS OF TOTAL PROFIT BY EACH REGION

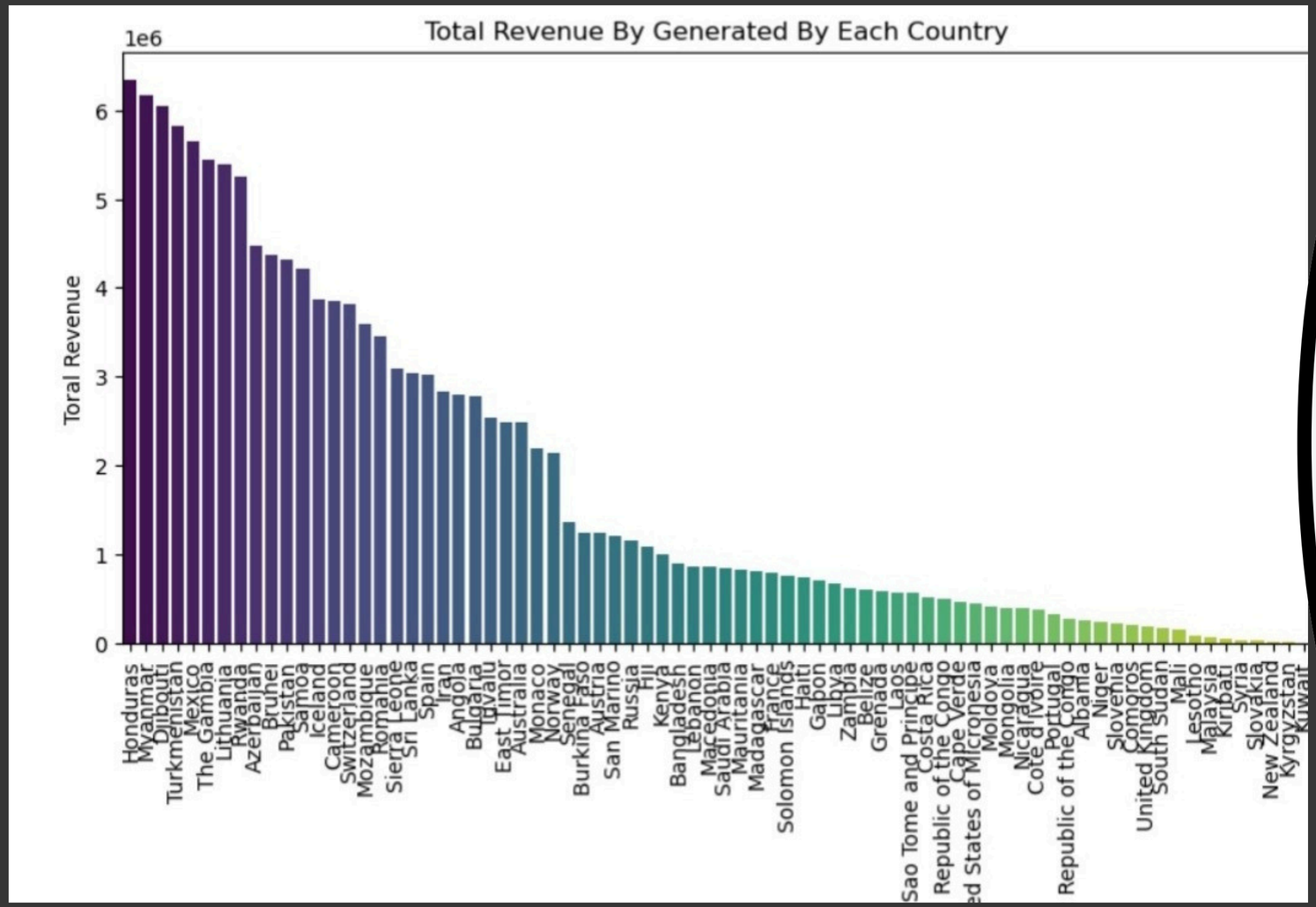
Region	Total Profit
Sub-Saharan Africa	12183211.40
Europe	11082938.63
Asia	6113845.87
Middle East and North Africa	5761191.86
Australia and Oceania	4722160.03
Central America and the Caribbean	2846907.85
North America	1457942.76



As per Observation:
Maximum Profit Generated By Sub-Saharan Region around 12.18 M between (2010-2017)
and Minimum Profit Generated By North America around 1.46 M

ANALYSIS OF TOTAL REVENUE BY EACH COUNTRY

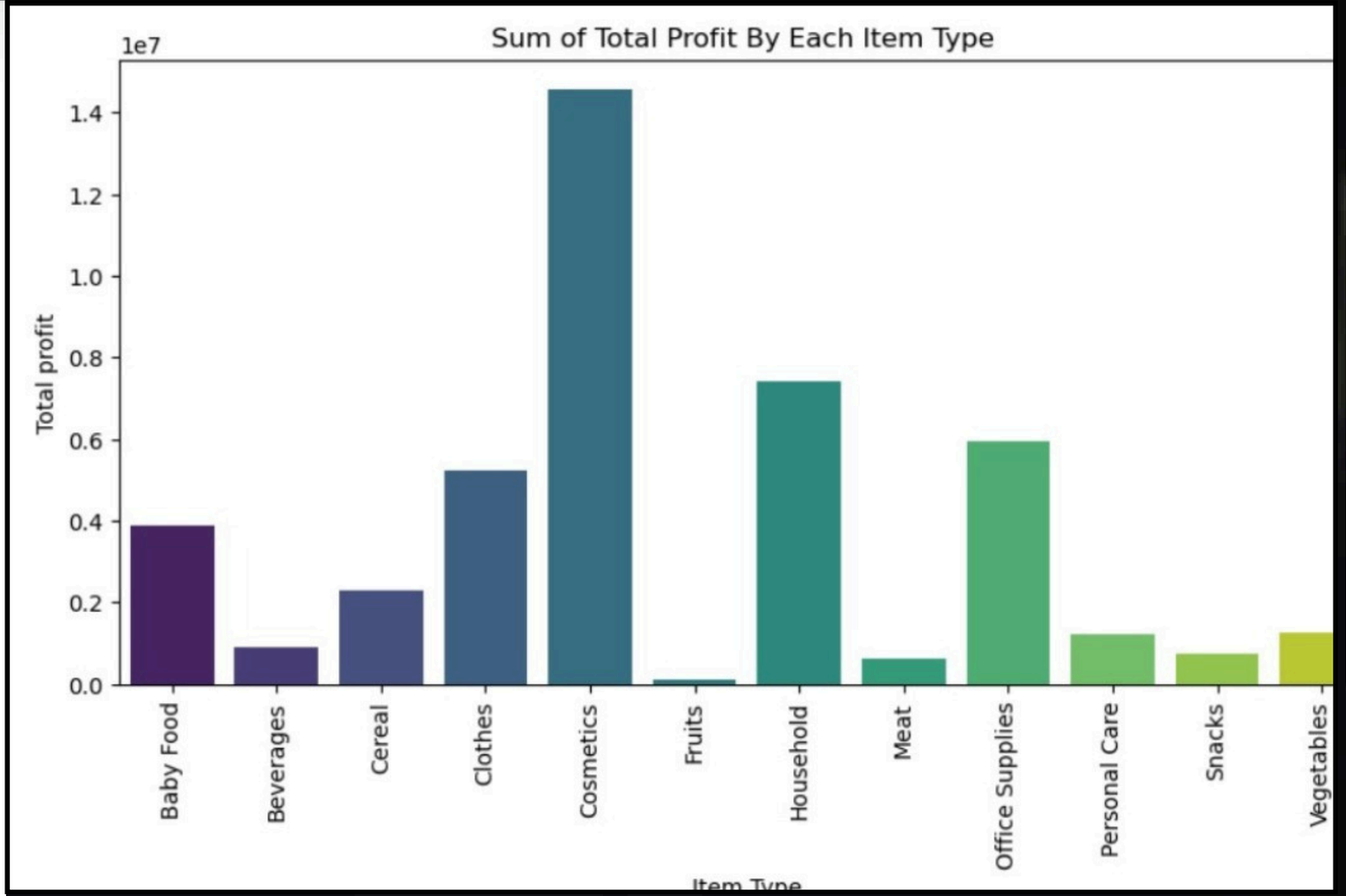
Country	Total Revenue
Honduras	6336545.48
Myanmar	6161257.90
Djibouti	6052890.86
Turkmenistan	5822036.20
Mexico	5643356.55
...	...
Syria	35304.72
Slovakia	26344.26
New Zealand	20404.71
Kyrgyzstan	19103.44
Kuwait	4870.26



Maximum Revenue Generated By Honduras and Minimum Revenue Generated By Kuwait

ANALYSIS OF TOTAL PROFIT BY EACH ITEM TYPES

	Item Type	Total Profit
0	Baby Food	3886643.70
1	Beverages	888047.28
2	Cereal	2292443.43
3	Clothes	5233334.40
4	Cosmetics	14556048.66
5	Fruits	120495.18
6	Household	7412605.71
7	Meat	610610.00
8	Office Supplies	5929583.75
9	Personal Care	1220622.48
10	Snacks	751944.18
11	Vegetables	1265819.63



As Per Observation: Maximum Profit Generated By Cosmetics between (2010-2017) and Minimum Profit By Fruits

ANALYSIS OF MONTHLY SALES TRENDS

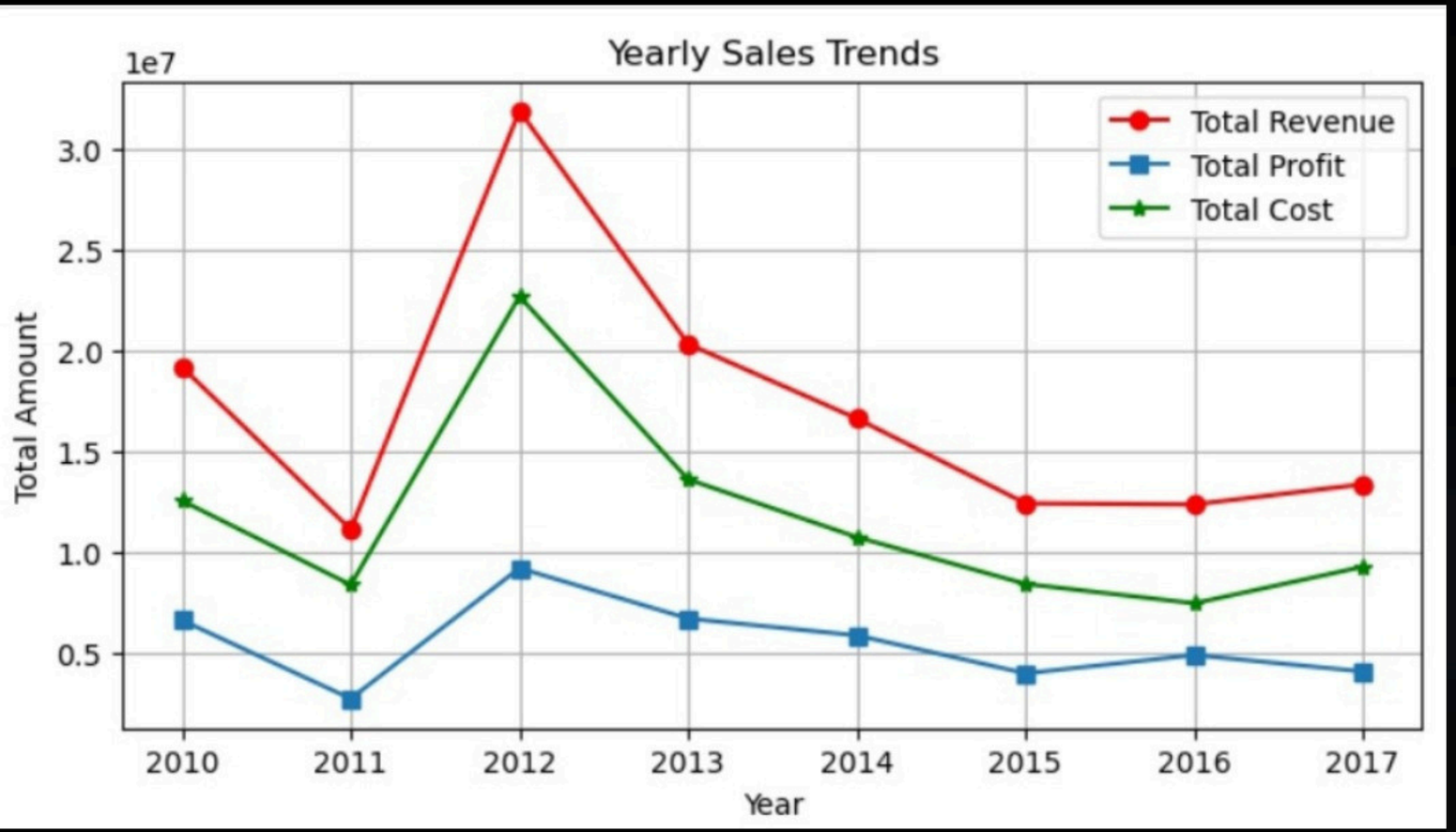
	Order_Month	Total Cost	Total Revenue	Total Profit
0	1	7665610.10	10482467.12	2816857.02
1	2	17668467.26	24740517.77	7072050.51
2	3	1346472.81	2274823.87	928351.06
3	4	11426977.98	16187186.33	4760208.35
4	5	8633047.69	13215739.99	4582692.30
5	6	3044946.34	5230325.77	2185379.43
6	7	10091055.44	15669518.50	5578463.06
7	8	548888.24	1128164.91	579276.67
8	9	2970596.53	5314762.56	2344166.03
9	10	10780653.36	15287576.61	4506923.25
10	11	14110622.11	20568222.76	6457600.65
11	12	4893232.05	7249462.12	2356230.07

The analysis reveals significant sales peaks in February and November .Conversely, sales tend to dip in March and August .

Hence The recurring patterns in sales highlight the importance of seasonality, with predictable peaks during major shopping seasons.

ANALYSIS OF YEARLY SALES TRENDS

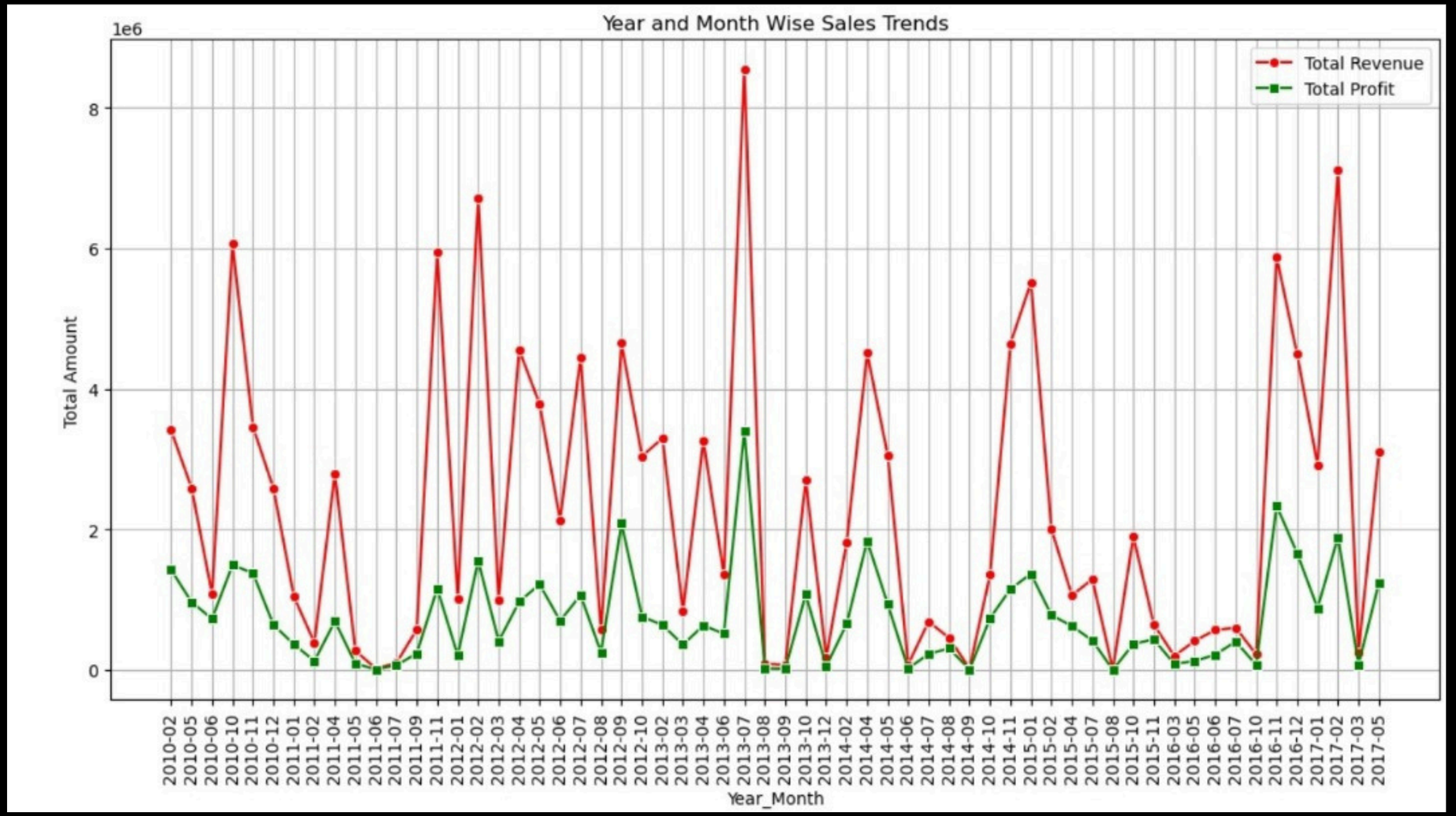
	Order_Year	Total Cost	Total Revenue	Total Profit
0	2010	12556457.49	19186024.92	6629567.43
1	2011	8388157.84	11129166.07	2741008.23
2	2012	22685634.40	31898644.52	9213010.12
3	2013	13615028.62	20330448.66	6715420.04
4	2014	10750752.75	16630214.43	5879461.68
5	2015	8431443.42	12427982.86	3996539.44
6	2016	7469029.21	12372867.22	4903838.01
7	2017	9284066.18	13373419.63	4089353.45



The analysis reveals significant sales peaks in 2012 .Conversely, sales tend to dip in 2011.
Hence The recurring patterns in sales highlight the importance of yearly, with predictable peaks during major shopping seasons.

ANALYSIS OF YEARLY-MONTHLY SALES TRENDS

	Order_Year_Month	Total Revenue	Total Profit
0	2010-02	3410661.12	1424410.94
1	2010-05	2587973.26	965441.52
2	2010-06	1082418.40	727423.20
3	2010-10	6064933.75	1495392.79
4	2010-11	3458252.00	1375311.70
5	2010-12	2581786.39	641587.28
6	2011-01	1042225.35	363509.04
7	2011-02	387002.20	127722.96
8	2011-04	2798046.49	693911.51
9	2011-05	272410.45	89904.06
10	2011-06	19103.44	7828.12
11	2011-07	97040.64	65214.72
12	2011-09	574951.92	235601.16
18	2012-05	3782781.82	1218518.14
19	2012-06	2132075.27	698414.36
20	2012-07	4445093.92	1065073.62
21	2012-08	576782.80	248406.36
22	2012-09	4648152.72	2084889.03
23	2012-10	3042246.77	758734.72
24	2013-02	3296425.02	639077.50
25	2013-03	835759.10	359941.17
26	2013-04	3262562.10	632512.50
27	2013-06	1352867.40	515753.38
28	2013-07	8545511.20	3398463.02
29	2013-08	89623.98	23150.46
30	2013-09	71253.21	18405.17
31	2013-10	2702770.40	1074864.34
32	2013-12	173676.25	53252.50
33	2014-02	1819660.25	655704.80
34	2014-04	4510578.10	1838545.92
35	2014-05	3060338.59	938755.75
36	2014-06	75591.66	19525.82
37	2014-07	688641.85	227273.58



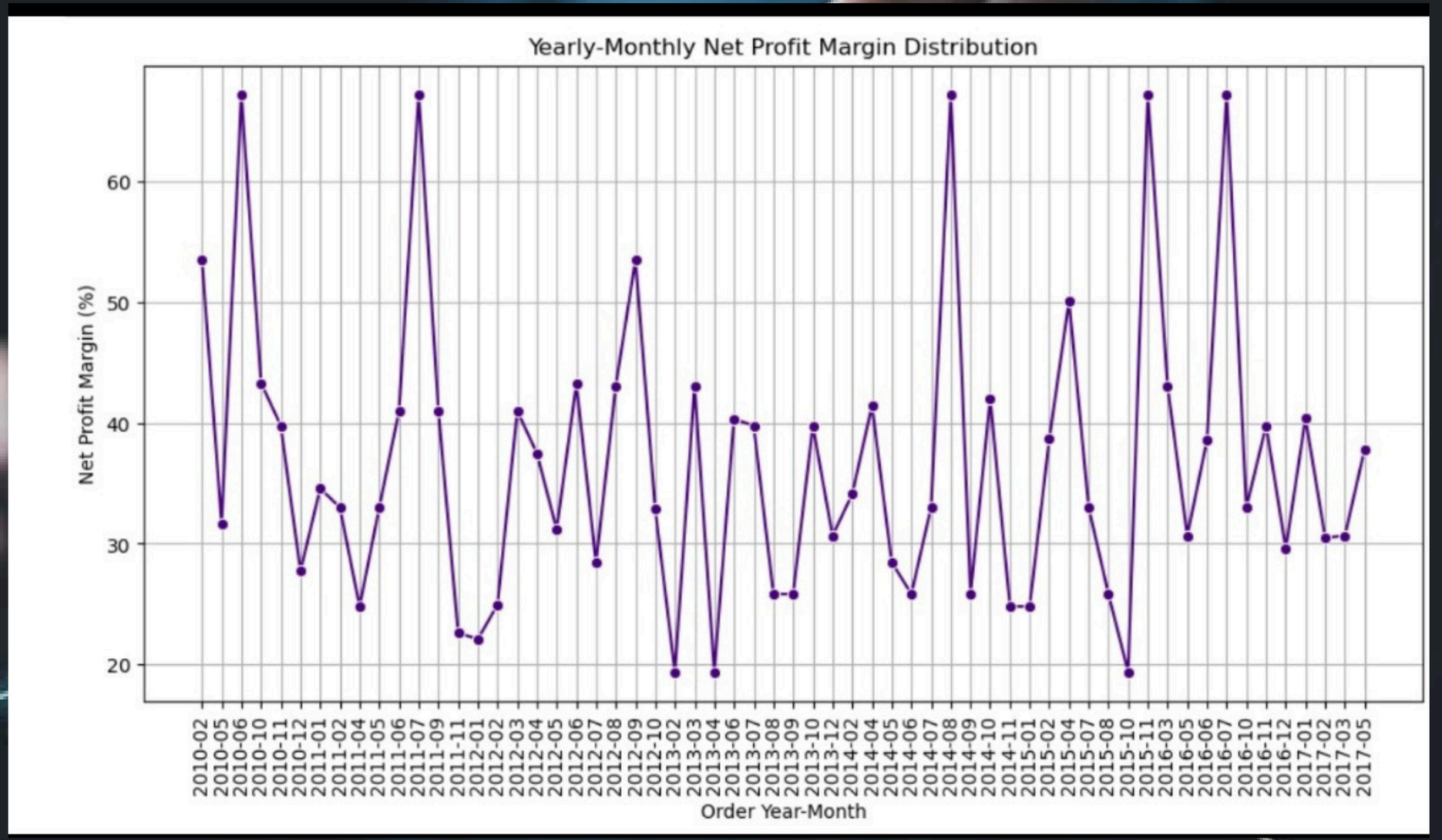
ANALYSIS OF MONTHLY PROFIT MARGIN

	Order_Year_Month	Profit_margin
52	2016-07	67.203514
48	2015-11	67.203514
2	2010-06	67.203514
38	2014-08	67.203514
11	2011-07	67.203514

Maximum Profit Margin Peaks in 2016,2015,2014,2011, 2010

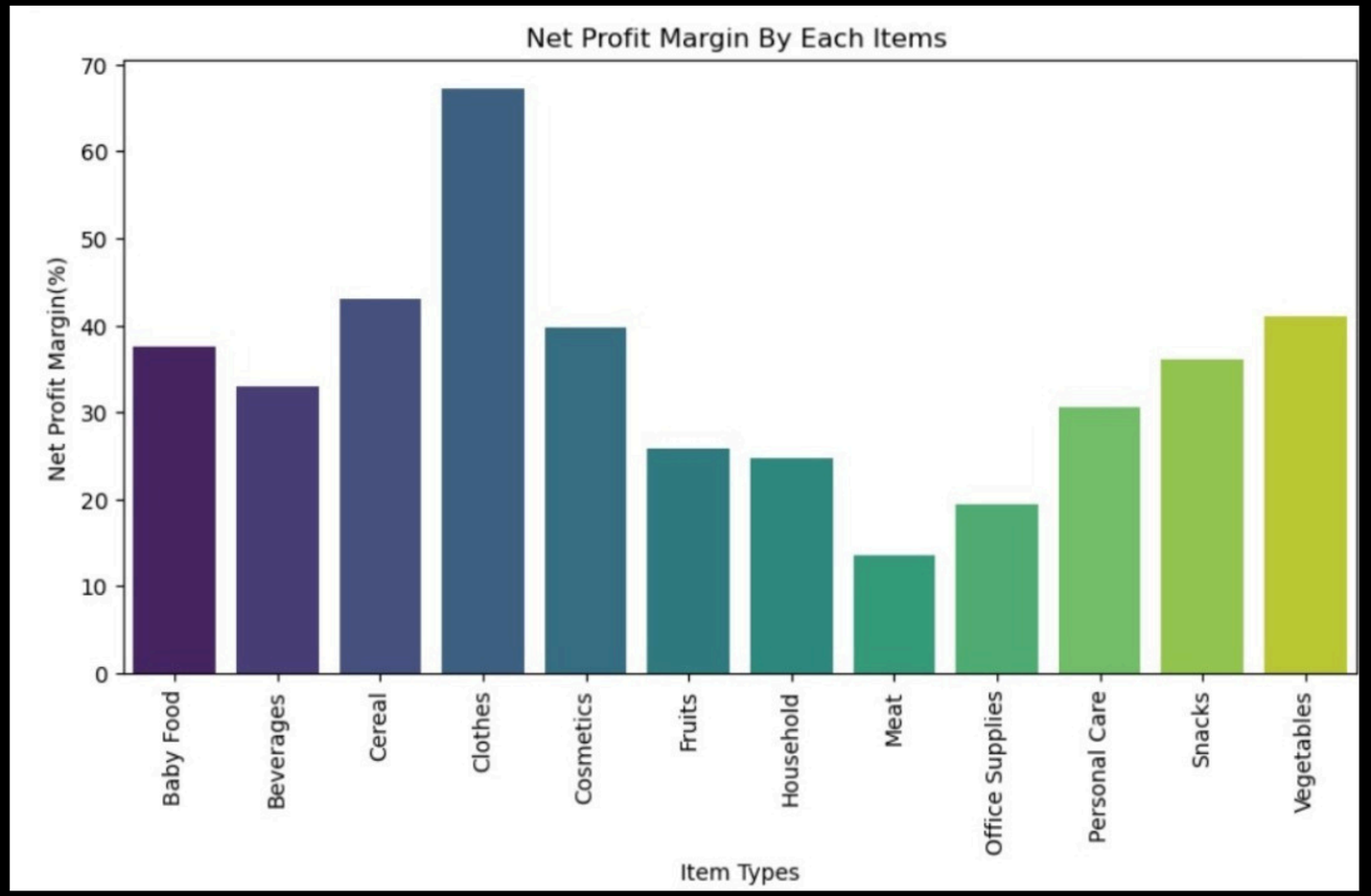
47	2015-10	19.386987
24	2013-02	19.386987
26	2013-04	19.386987

Minimum Profit Margin tends down in August 2015 and February, May 2013



ANALYSIS OF PROFIT MARGIN BY EACH ITEMS

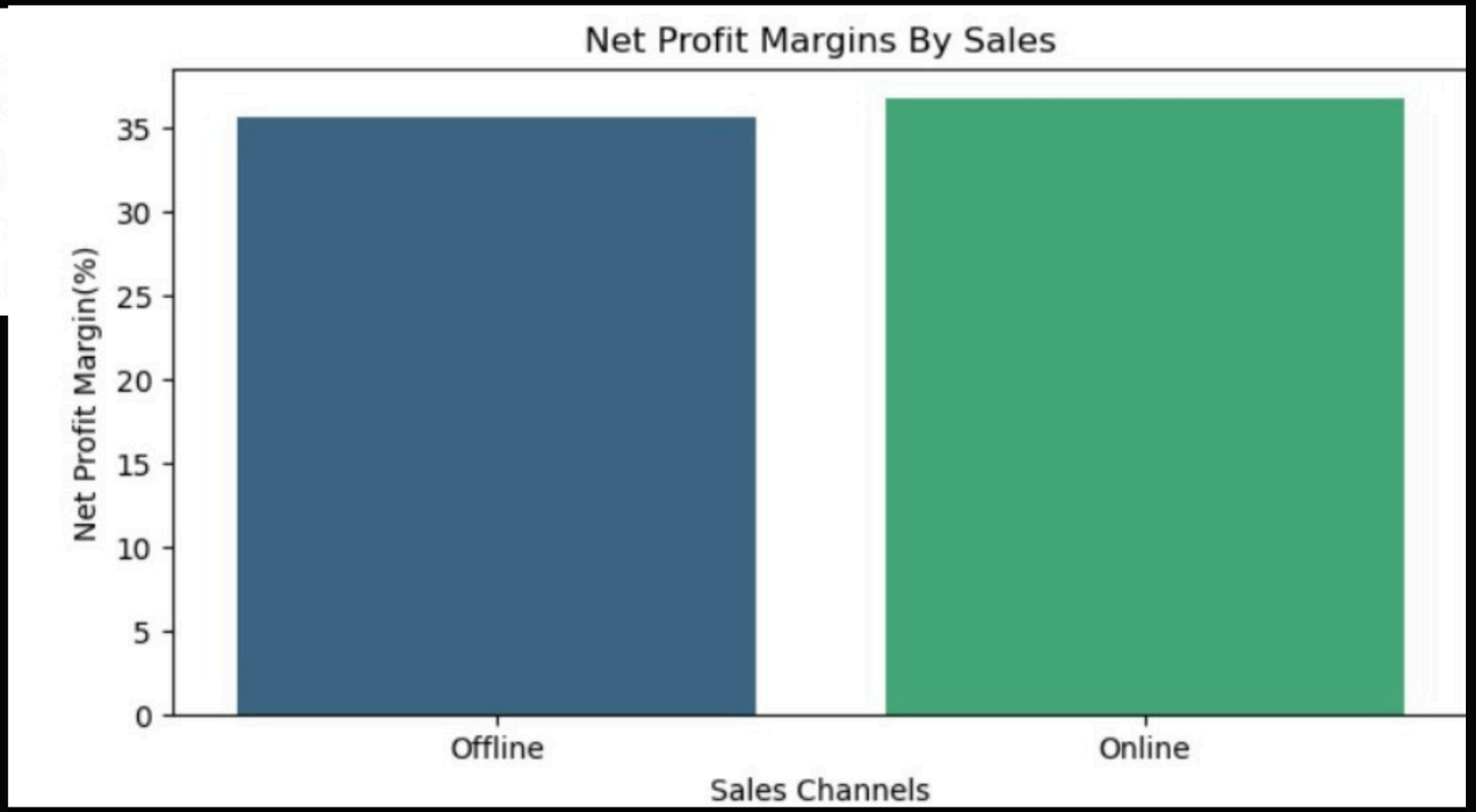
	Item Type	Profit_margin
0	Baby Food	37.550924
1	Beverages	33.003161
2	Cereal	43.067574
3	Clothes	67.203514
4	Cosmetics	39.768984
5	Fruits	25.830654
6	Household	24.799856
7	Meat	13.558036
8	Office Supplies	19.386987
9	Personal Care	30.661936
10	Snacks	36.138419
11	Vegetables	40.977541



Between (2010-2017) Maximum Profit Margin gains on Clothes and Minimum on Meat

ANALYSIS OF PROFIT MARGIN BY EACH CHANNEL

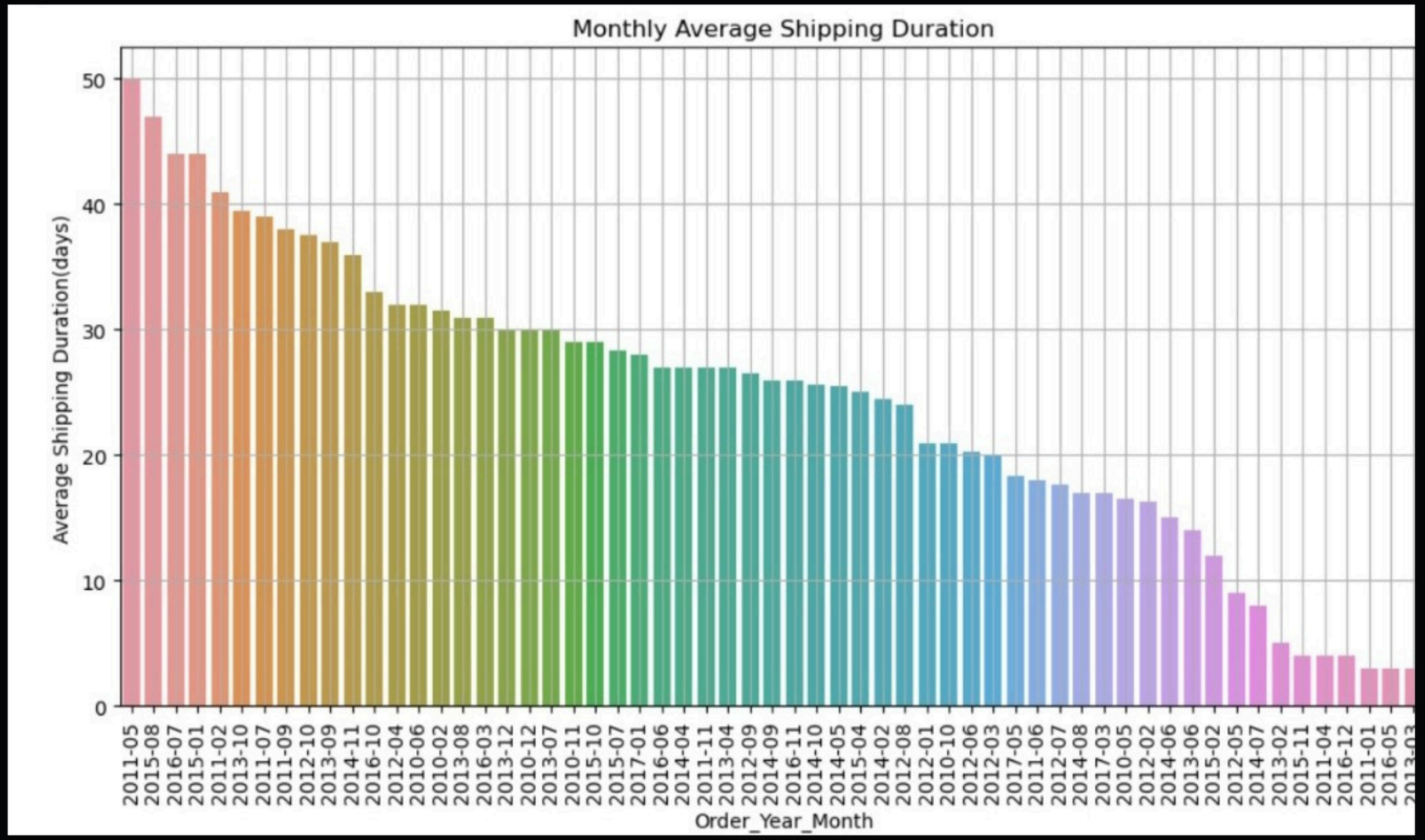
	Sales Channel	Profit_margin
0	Offline	35.688983
1	Online	36.734263



As Per Observation Total Profit Margin Recursively Increasing from Offline Sales channel to Online Sales Channel Between the Year 2010-2017

MONTHLY AVERAGE SHIPPING DURATION

The average shipping duration tends to be higher during certain months, likely correlating with peak shopping periods such May and July.This increase is probably due to the higher volume of orders during the holiday season, which can strain logistics and fulfillment capacities. Months like January and March often show shorter average shipping durations, likely because of lower order volumes post-holiday season, allowing for more efficient processing and delivery.



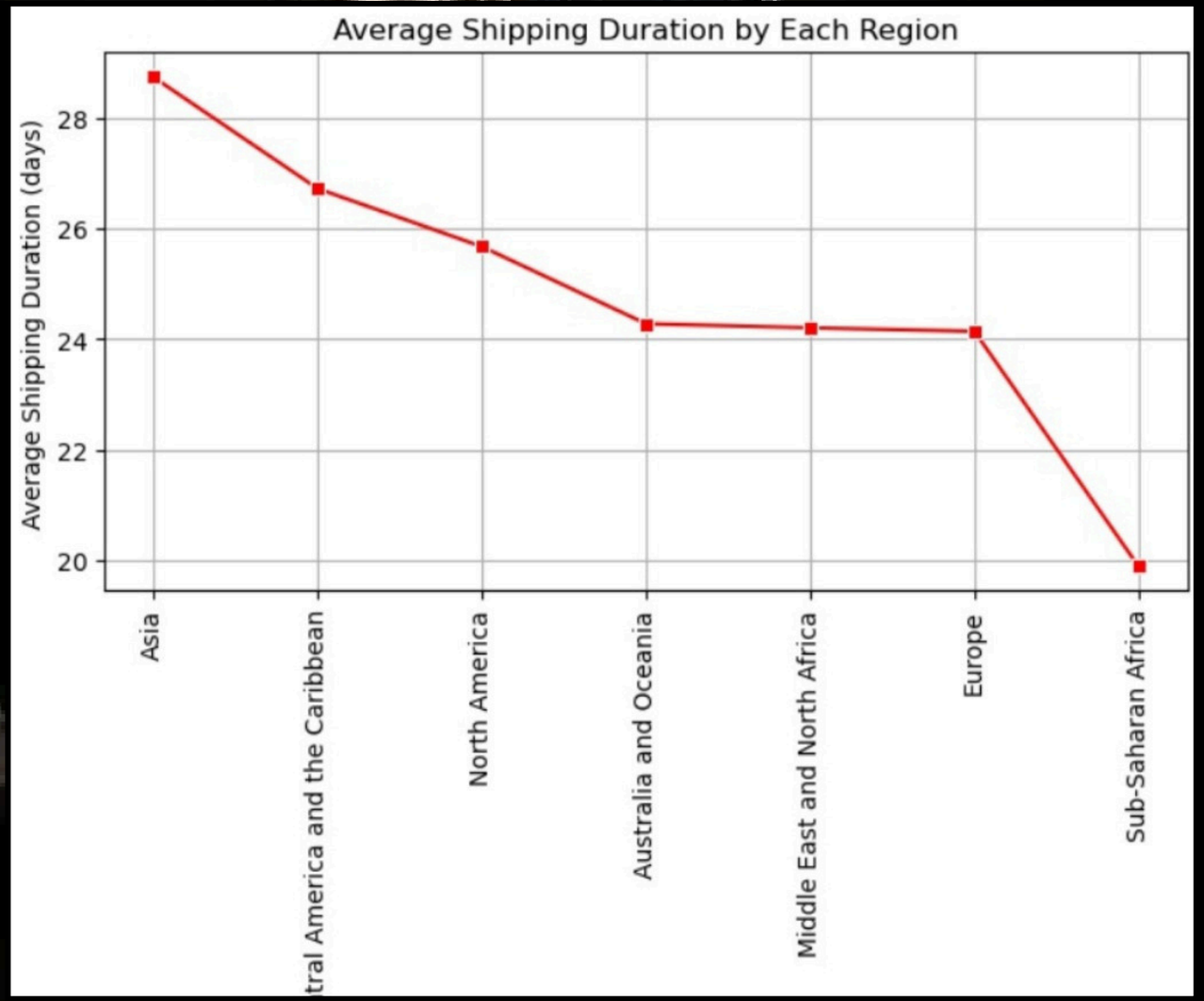
AVERAGE SHIPPING DURATION BY ORDER PRIORITY

	Order Priority	Shipping_Duratio
0	C	23.86363
1	H	21.40000
2	L	23.59259
3	M	25.33333

High Priority (H) Orders:
The data shows that High-priority orders have the shortest average shipping duration. This indicates that these orders are processed and shipped more quickly.

AVERAGE SHIPPING DURATION BY EACH REGION

	Region	Shipping_Duration
0	Asia	28.727273
2	Central America and the Caribbean	26.714286
5	North America	25.666667
1	Australia and Oceania	24.272727
4	Middle East and North Africa	24.200000
3	Europe	24.136364
6	Sub-Saharan Africa	19.888889

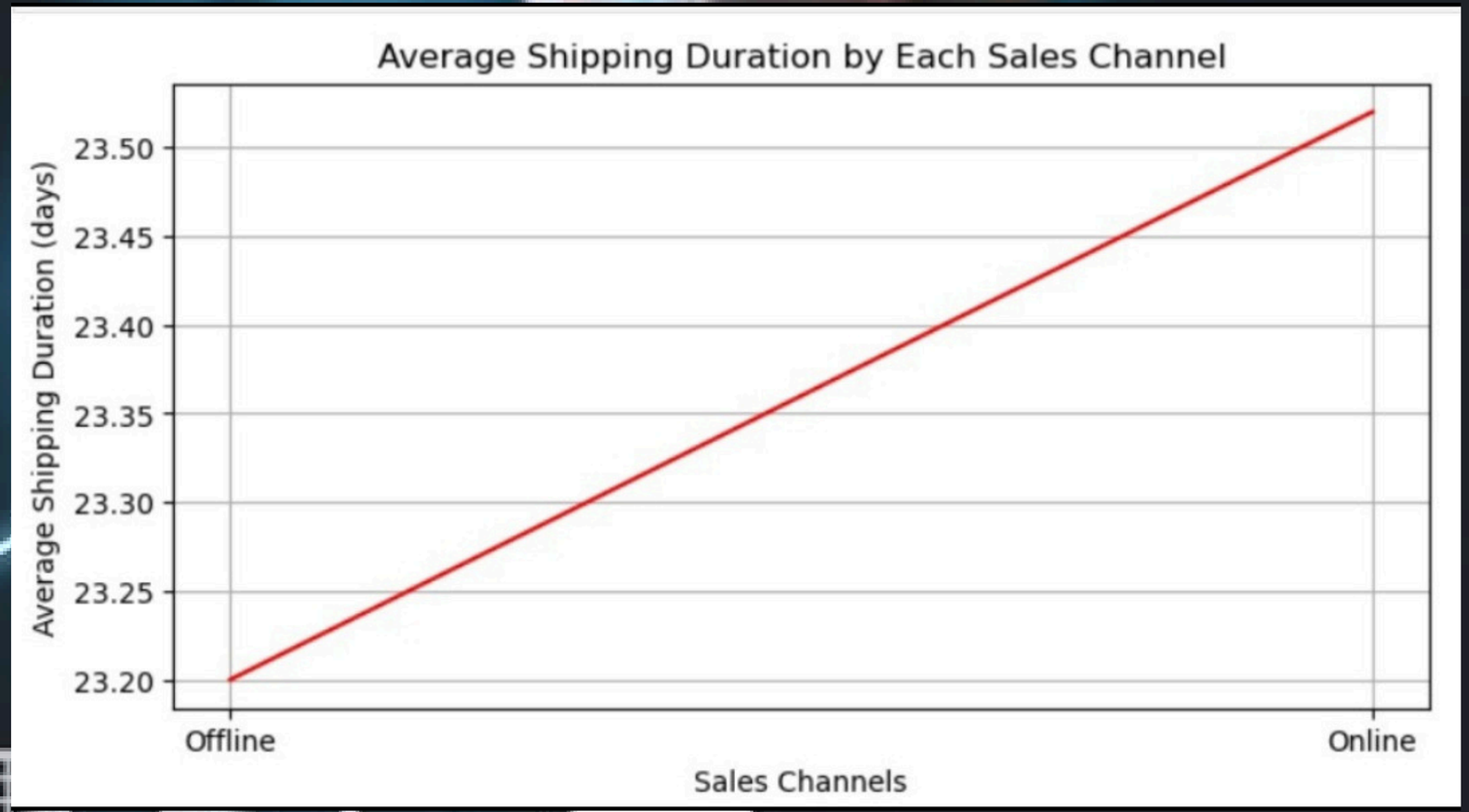


The graph indicates significant variations in shipping durations across different regions. For instance, Sub-Saharan Africa exhibits the shortest average shipping duration, suggesting efficient logistics and distribution networks within this region.

AVERAGE SHIPPING DURATION BY SALES CHANNEL

	Sales Channel	Shipping_Duration
0	Offline	23.20
1	Online	23.52

The analysis indicates a noticeable difference in shipping durations between the online and offline sales channels. As Offline channel has shorter shipping duration



Amazon Sales Dashboard Year(2010-2017)

44.17M
Sum of Total Profit

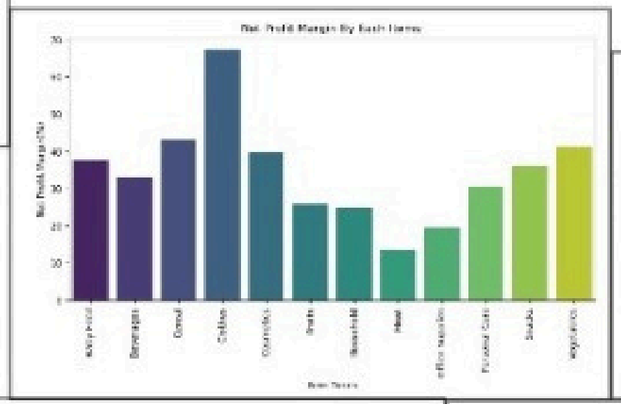
93.18M
Sum of Total Cost

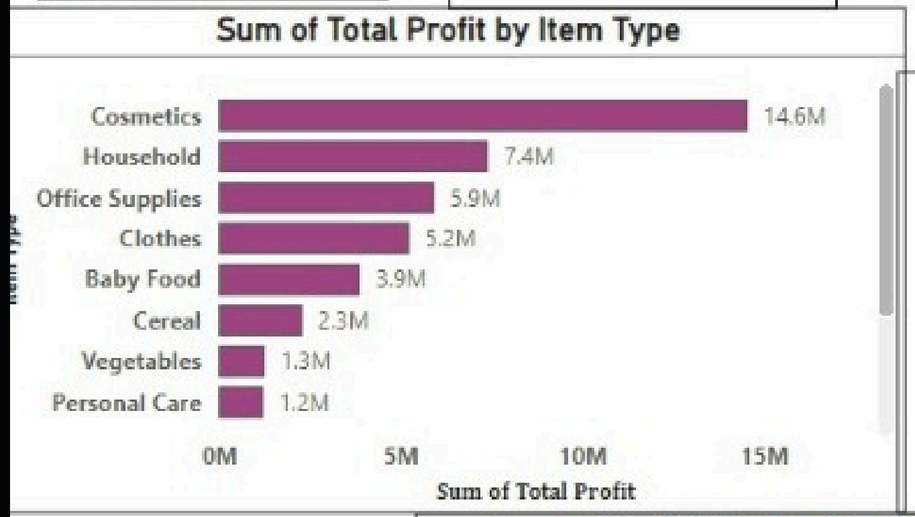
137.35M
Sum of Total Revenue

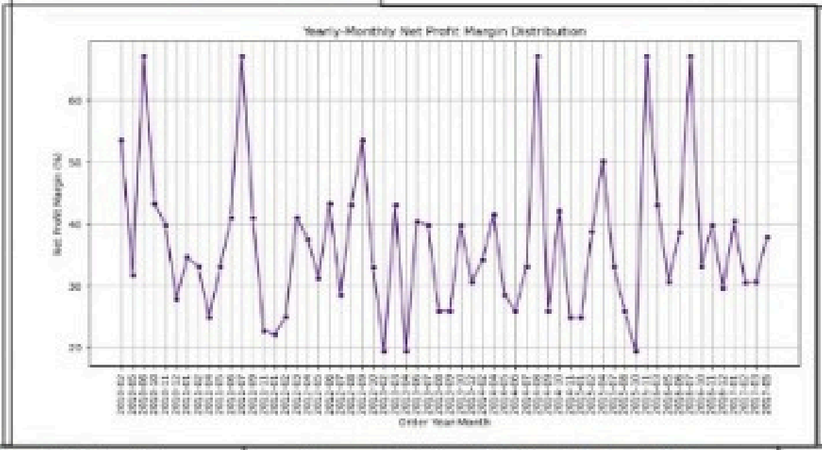
513K
Sum of Units Sold

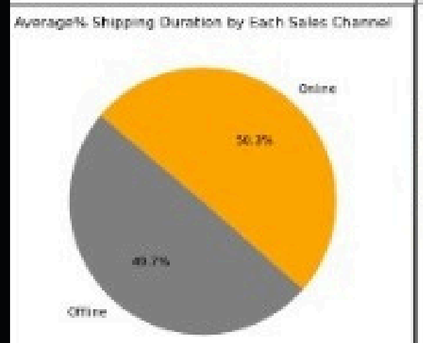
	Sales Channel	Profit_margin
0	Offline	35.688983
1	Online	36.734263

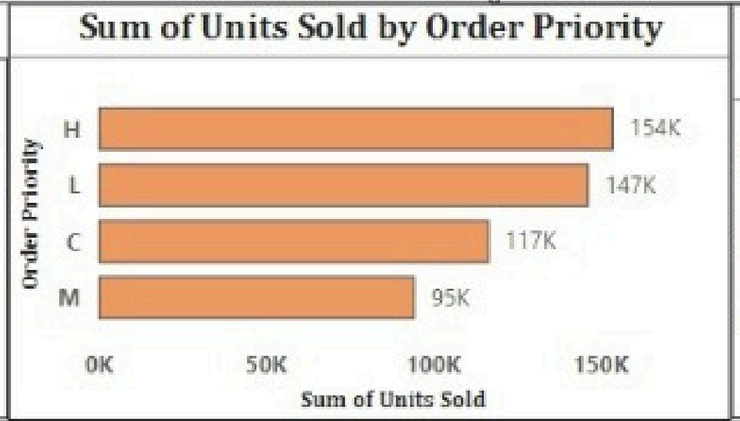
	Order_Year_Month	Profit_margin
52	2016-07	67.208514
48	2015-11	67.208514
2	2010-06	67.208514
38	2014-08	67.208514
11	2011-07	67.208514

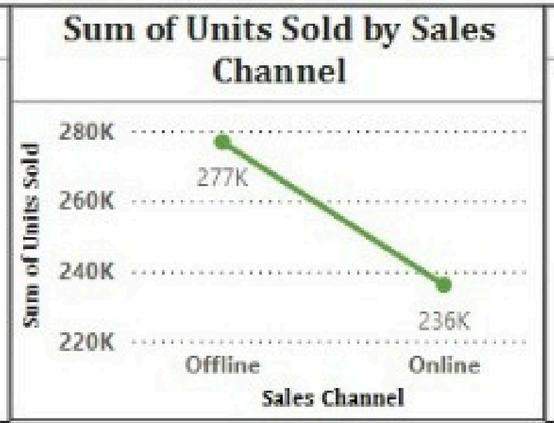


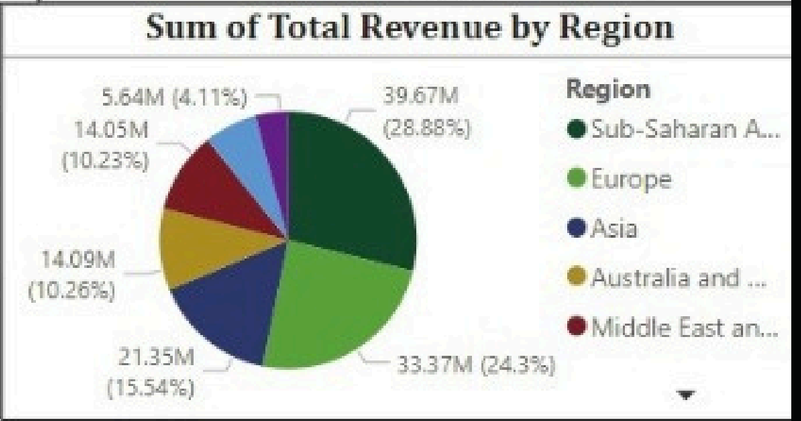












Pridiction Model For Future Sales

```
# Training The Model

model= LinearRegression()
model.fit(x_train,y_train)
```

```
LinearRegression
LinearRegression()
```

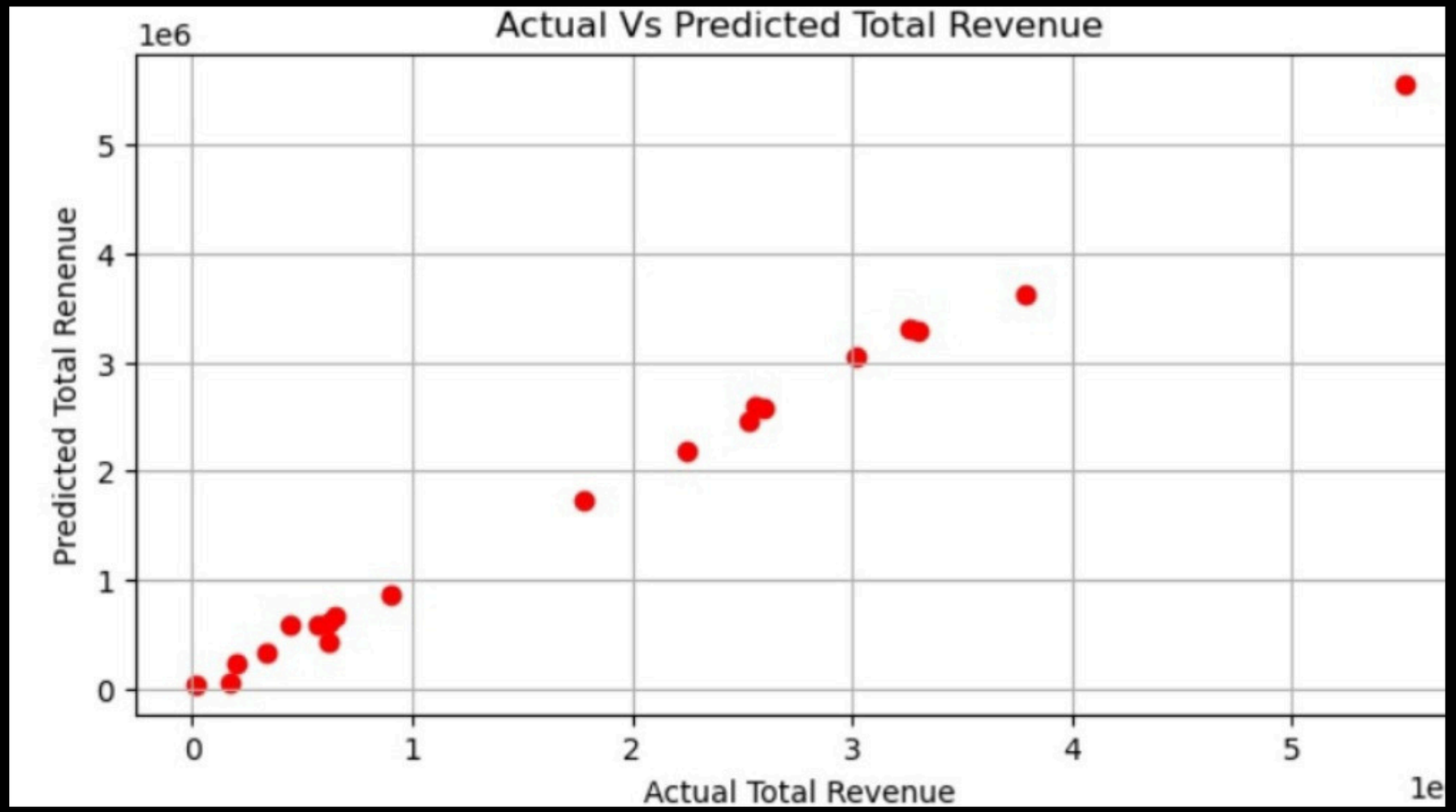
```
# Making Prediction

y_predict=model.predict(x_test)
y_predict
```

```
array([ 616641.71320668, 2193981.78041929, 3313287.82102644,
        232689.98071776,  674820.7098945 , 2576813.33839323,
        340993.29205762, 3057050.15494381,   42719.05173038,
       2461151.48996343, 2607639.91749204, 3619979.43964778,
       1739195.42355929, 5559304.84109101,  424297.17183004,
       3290815.03038281,  591826.70343879,  585654.31635442,
        854971.88287995,   62083.18613091])
```

```
model.score(x_test,y_test)
```

```
0.9972140797451141
```



THANK YOU