

XYZ Inc.

Leveraging Data Insights for Growth and Optimization

How to increase and optimize the profits and revenue for the coming year ?

11 May 2024

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INTRODUCTION

- XYZ Inc. is seeking insights into its business performance across continents, countries, products, and customer groups (type) and is looking for opportunities to optimize/increase its profits.
- Attached excel has data for one year for XYZ Inc. customers across continents, countries, customer groups, and products

TOOLS UTILIZED

POWER BI

Microsoft Power BI is a data visualization platform.

PYTHON

Python helps in analysing data more quicker and efficiently. Just importing few Libraries helps in visualizing the data. For example PANDAS, NUMPY



MS EXCEL

Helps in Data Cleaning and Sorting. It is the tool for data analysis and interpretation. Contains plenty of formulas to work with data, data filtering, etc.

JUPYTER NOTEBOOK

JupyterLab is the latest web-based interactive development environment for notebooks, code, and data. Its flexible interface allows users to configure and arrange workflows in data science.

CHANGES MADE IN DATA SET

The Total Cost column was missing, calculation done :

$$\text{Cost per unit} * \text{units sold} = \text{Total cost}$$

We can find profit/loss by, calculation

$$\text{Profit} = \text{Total Sales} - \text{Total Cost}$$

Margin percentage column

$$\text{Margin percentage} = (\text{Profit} / \text{Total Sales}) * 100$$

The units value was in decimals. Since units should be in whole numbers , they were rounded off

Excel Sheet is attached in the submission for the same

**ON THE BASIS OF THIS CHANGED AND ADDED , THE FURTHER
DATA ANALYSIS HAS BEEN CARRIED OUT.**

TOP 5 FINDINGS

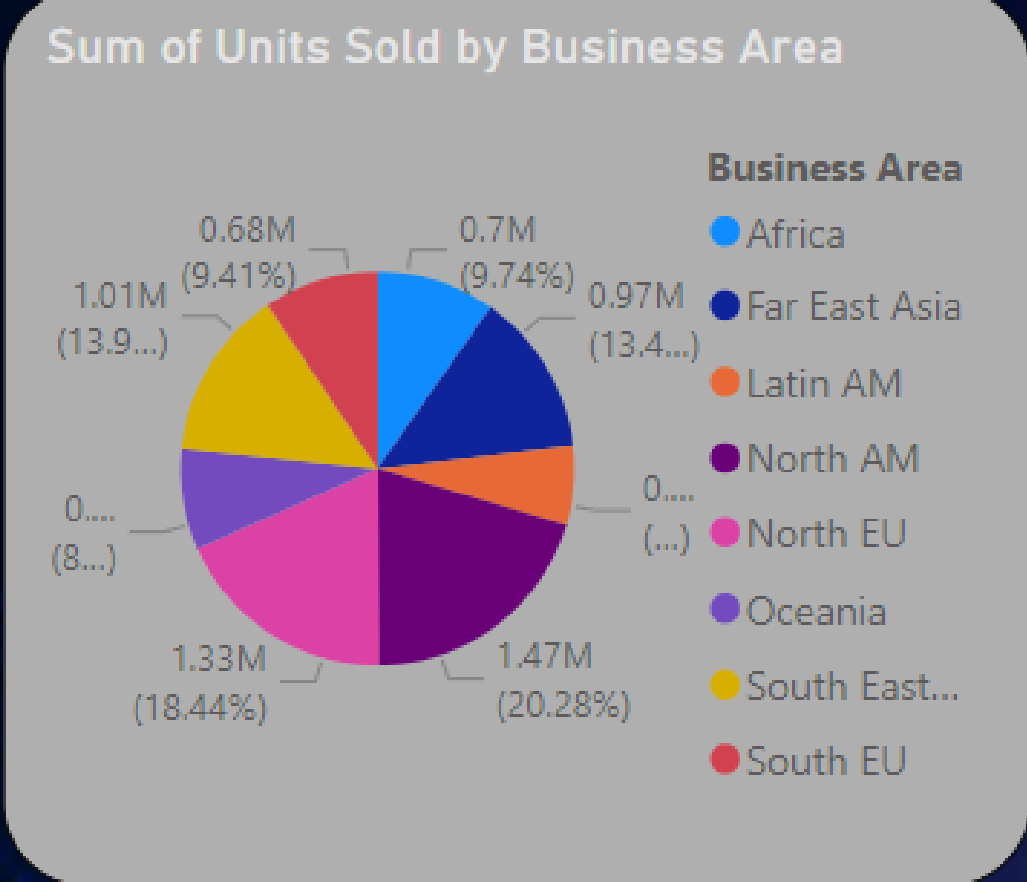
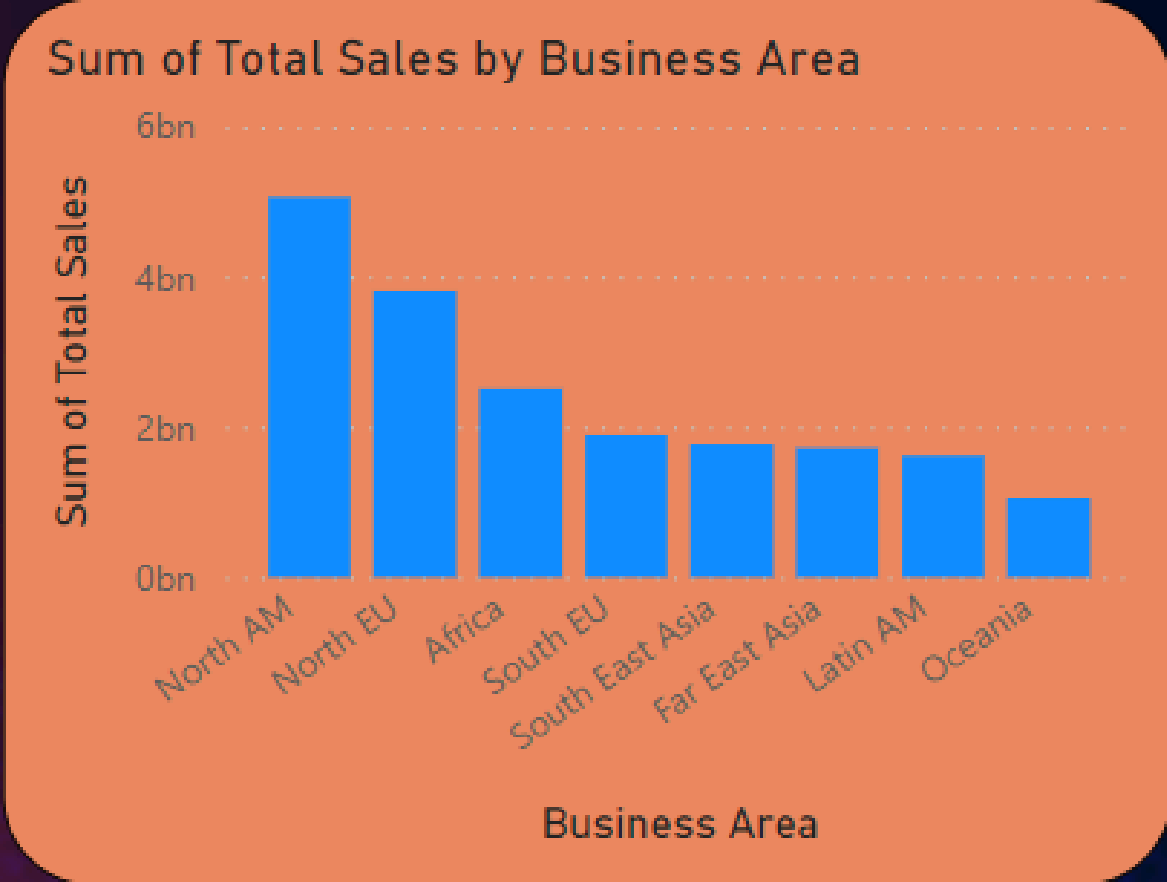
ANALYSIS PARAMETER	FINDING
OVERALL BUSINESS PERFORMANCE	TOTAL PROFIT AND LOSS IN ONE YEAR
CONTINENT WISE	CONTINENTS WITH MAXIMUM AND MINIMUM PROFITS
CUSTOMER SEGMENT WISE	CUSTOMER SEGMENTS AND THEIR CONTRIBUTION TO PROFIT
PRODUCT WISE	PRODUCTS WITH HIGH AND LOW PROFIT AND LOSS RATES
COUNTRY WISE	TOP AND BOTTOM PERFORMING COUNTRIES IN EACH CONTINENT

BASED ON THE TOP FINDINGS , A DASHBOARD
IS CREATED IN POWER BI TO VISUALIZE THE
DATA PERFECTLY

GO ON THE NEXT PAGE TO VIEW THE DASHBOARD
DASHBOARD HAS BEEN SUBMITTED IN THE ASSIGNMENT

FINDINGS

Business Area	
Africa	Far East Asia
Latin AM	North AM
North EU	Oceania
South East...	South EU



19.4bn

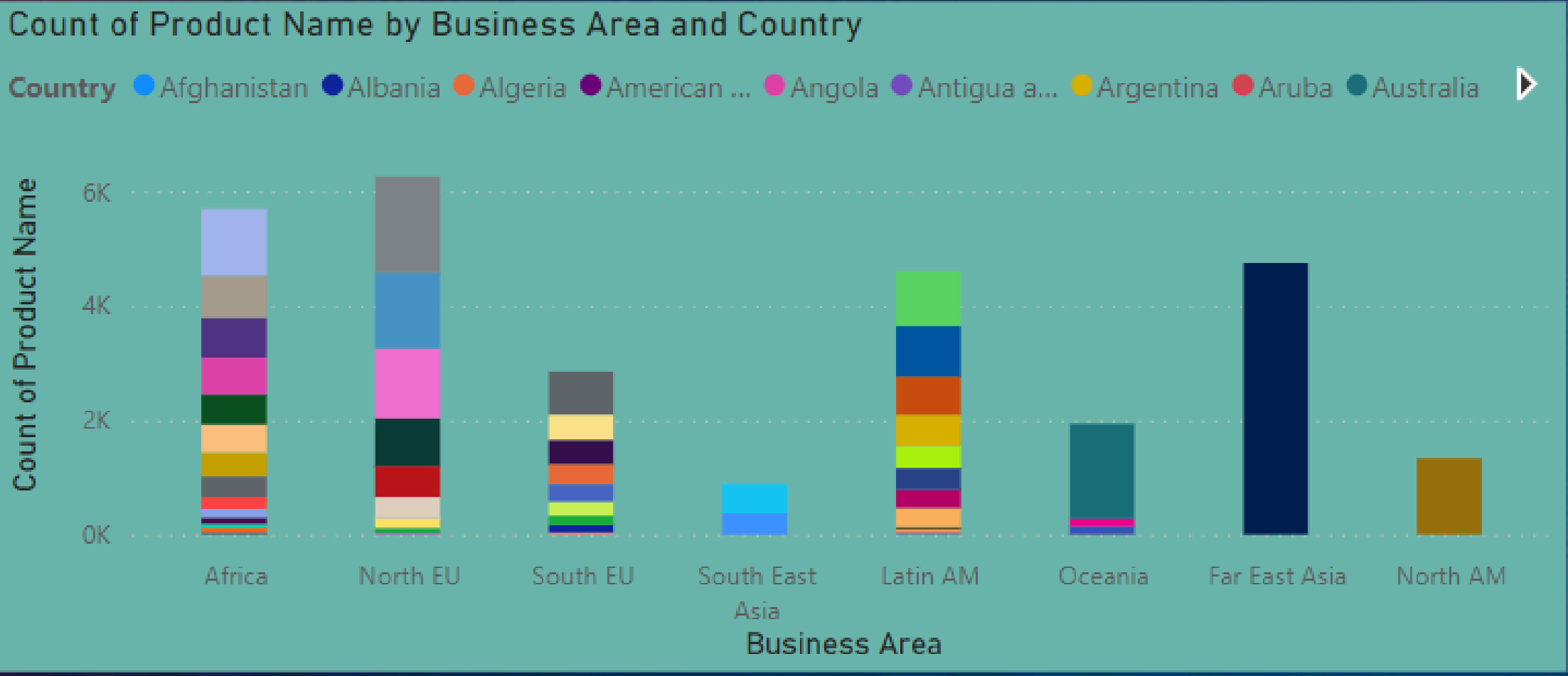
Sum of Total Sales

13.3bn

Sum of Total Cost

7M

Sum of Units Sold



FINDINGS

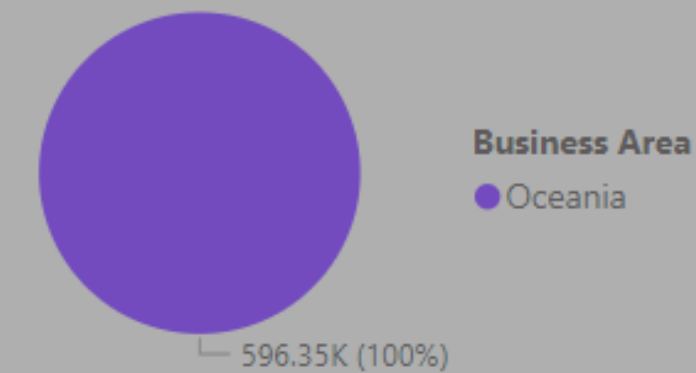
Business Area

Africa	Far East Asia
Latin AM	North AM
North EU	Oceania
South East...	South EU

Sum of Total Sales by Business Area



Sum of Units Sold by Business Area



1.0bn

Sum of Total Sales

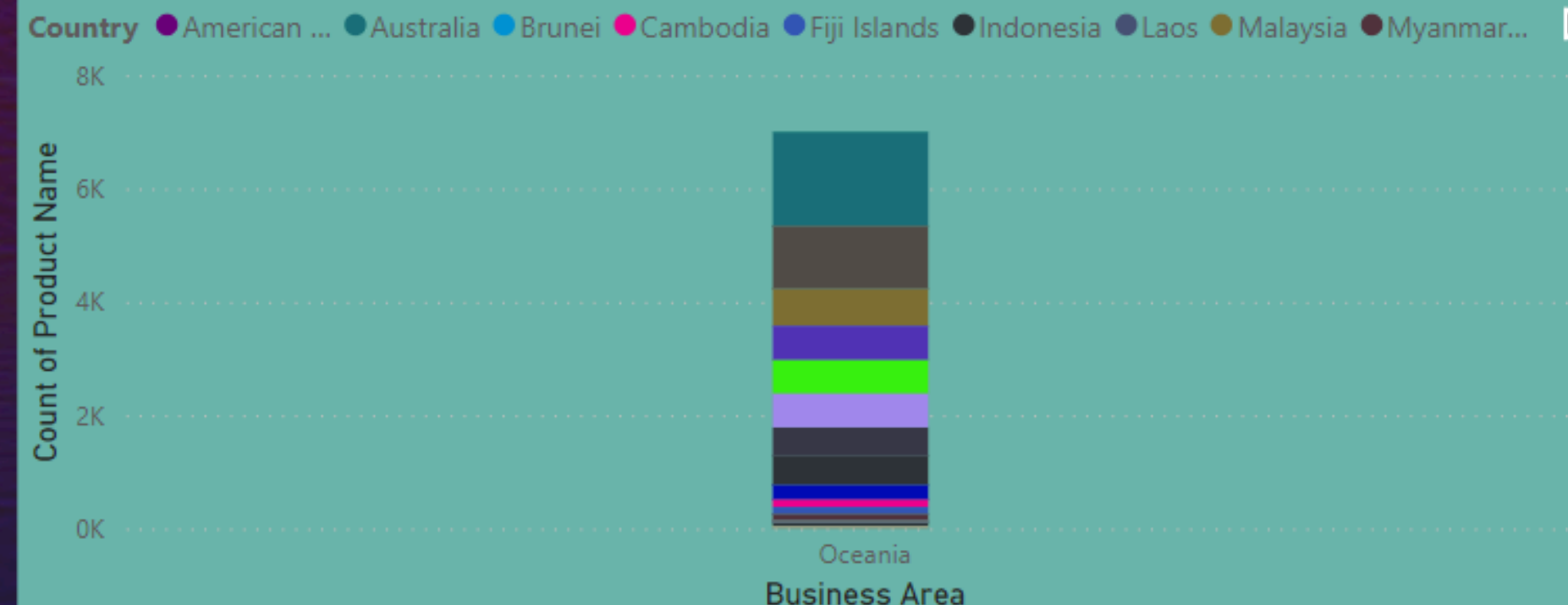
988.4M

Sum of Total Cost

596K

Sum of Units Sold

Count of Product Name by Business Area and Country



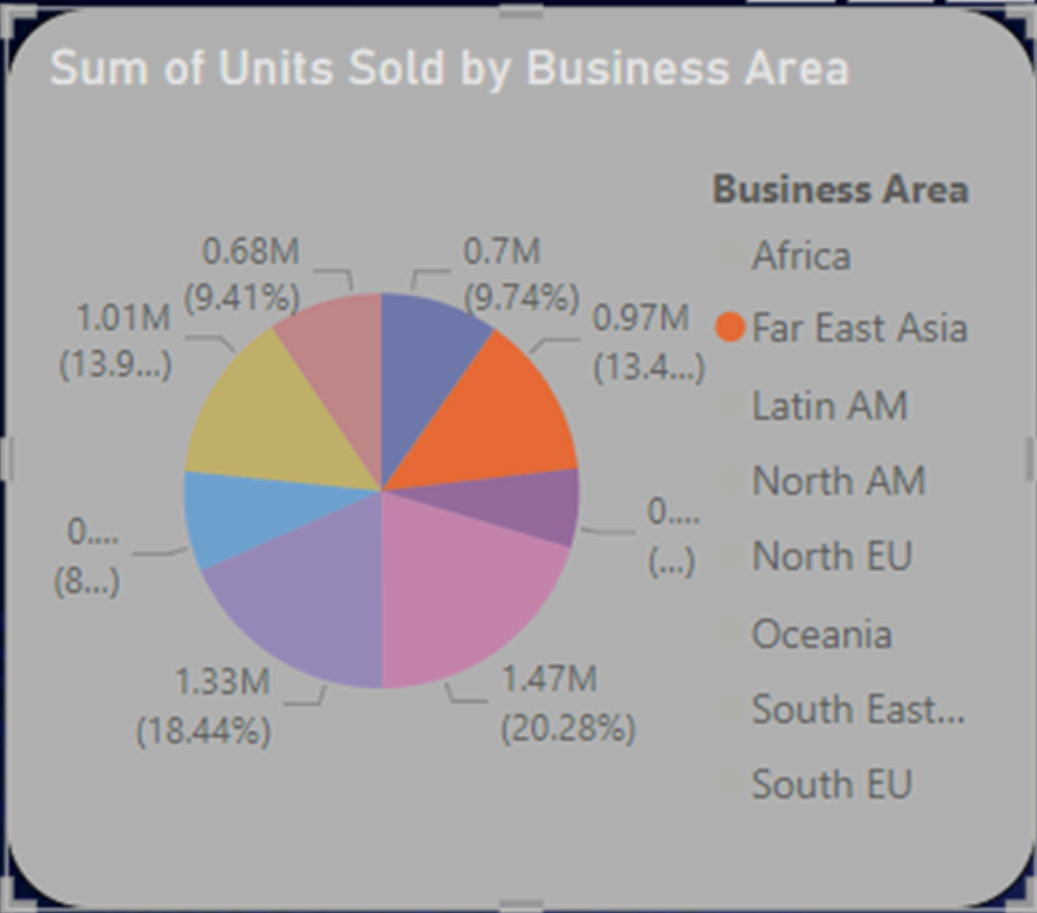
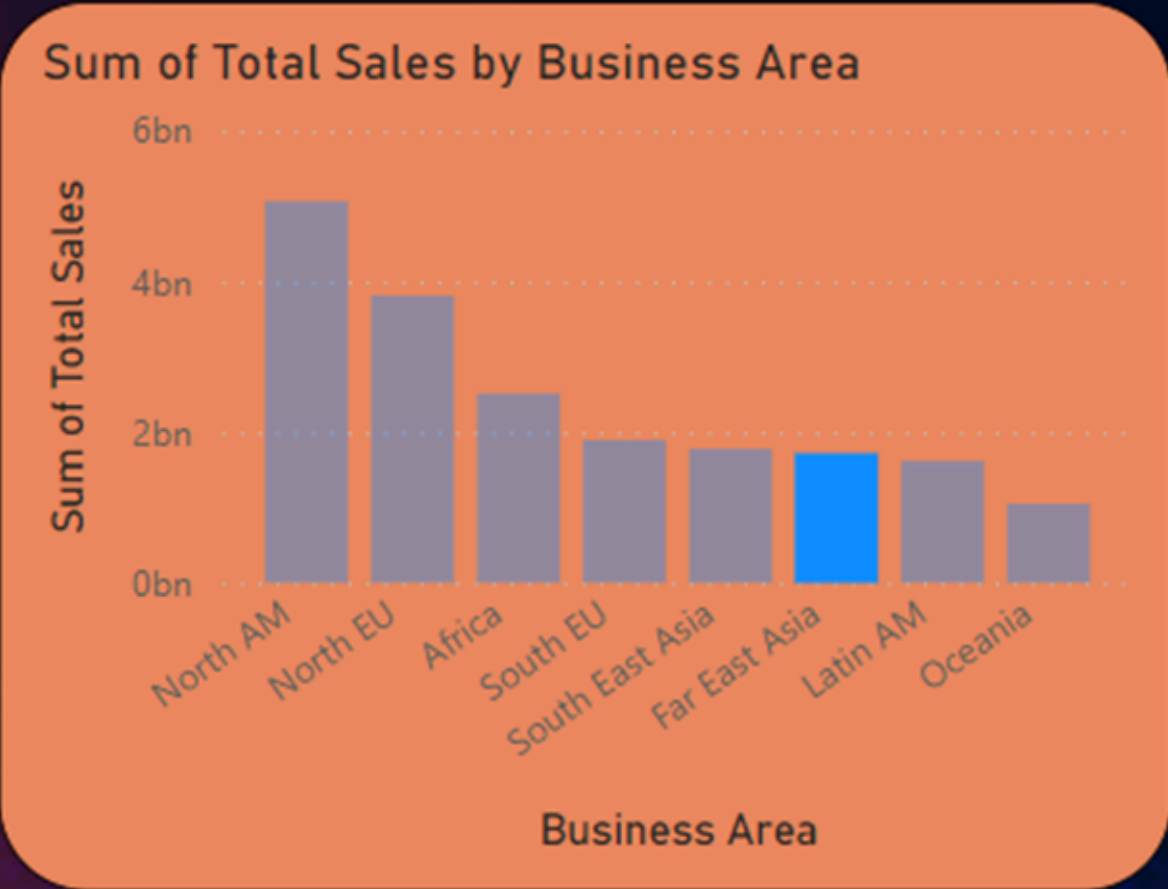
WHEN CLICKING ON DIFFERENT CONTINENTS , INSIGHTS FOR THAT CONTINENT ARE DISPLAYED ON THE DASHBOARD.
SAME CAN BE SEEN ABOVE FOR OCEANIA EU.

FINDINGS



Business Area

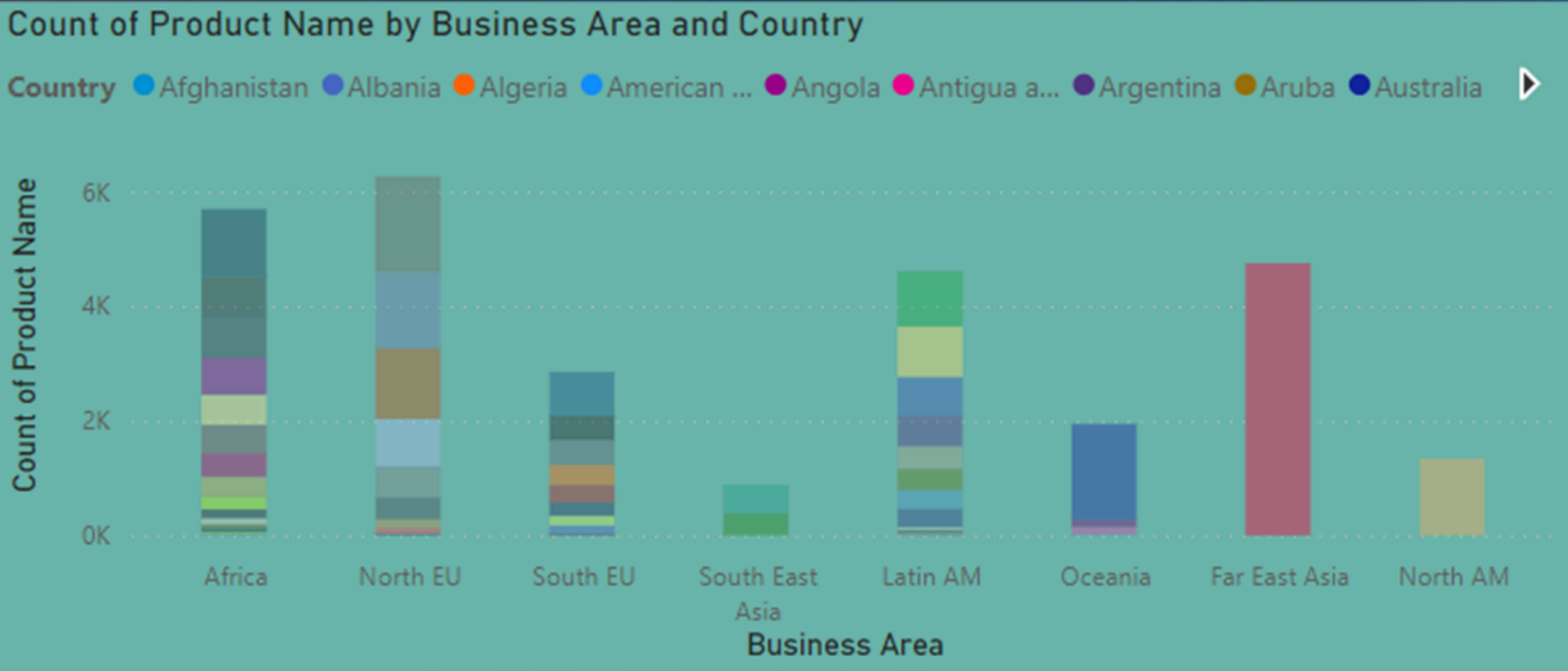
Far East Asia



1.7bn
Sum of Total Sales

1.6bn
Sum of Total Cost

970K
Sum of Units Sold



1. TOTAL PROFIT DONE IN ONE YEAR ACROSS ALL CONTINENTS

\$7.21 billion
Total Profit
approximately.

\$1.01 billion
Total Loss
approximately.

Total Profit and
loss of the business
all over the
continents can be
observed



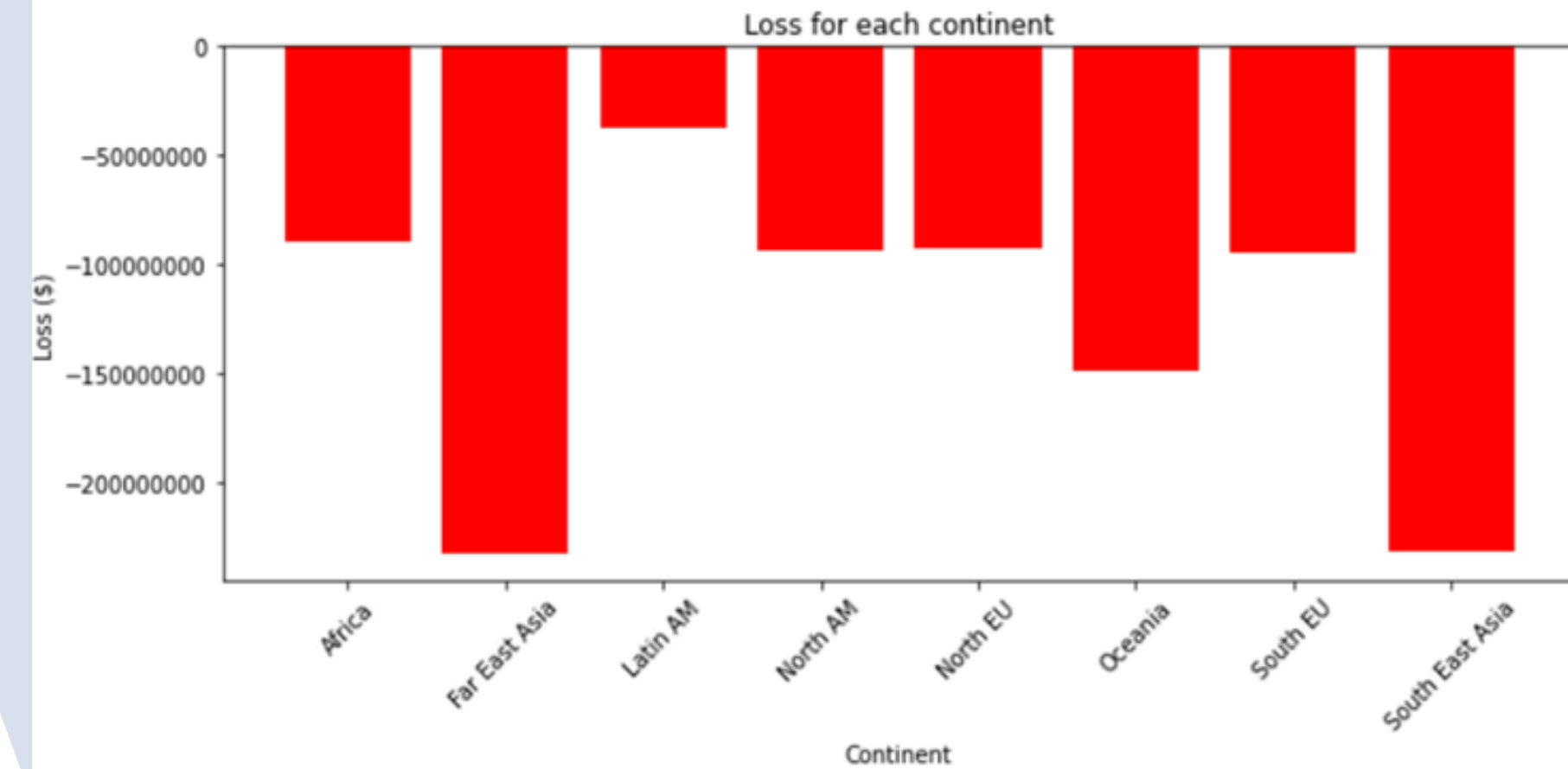
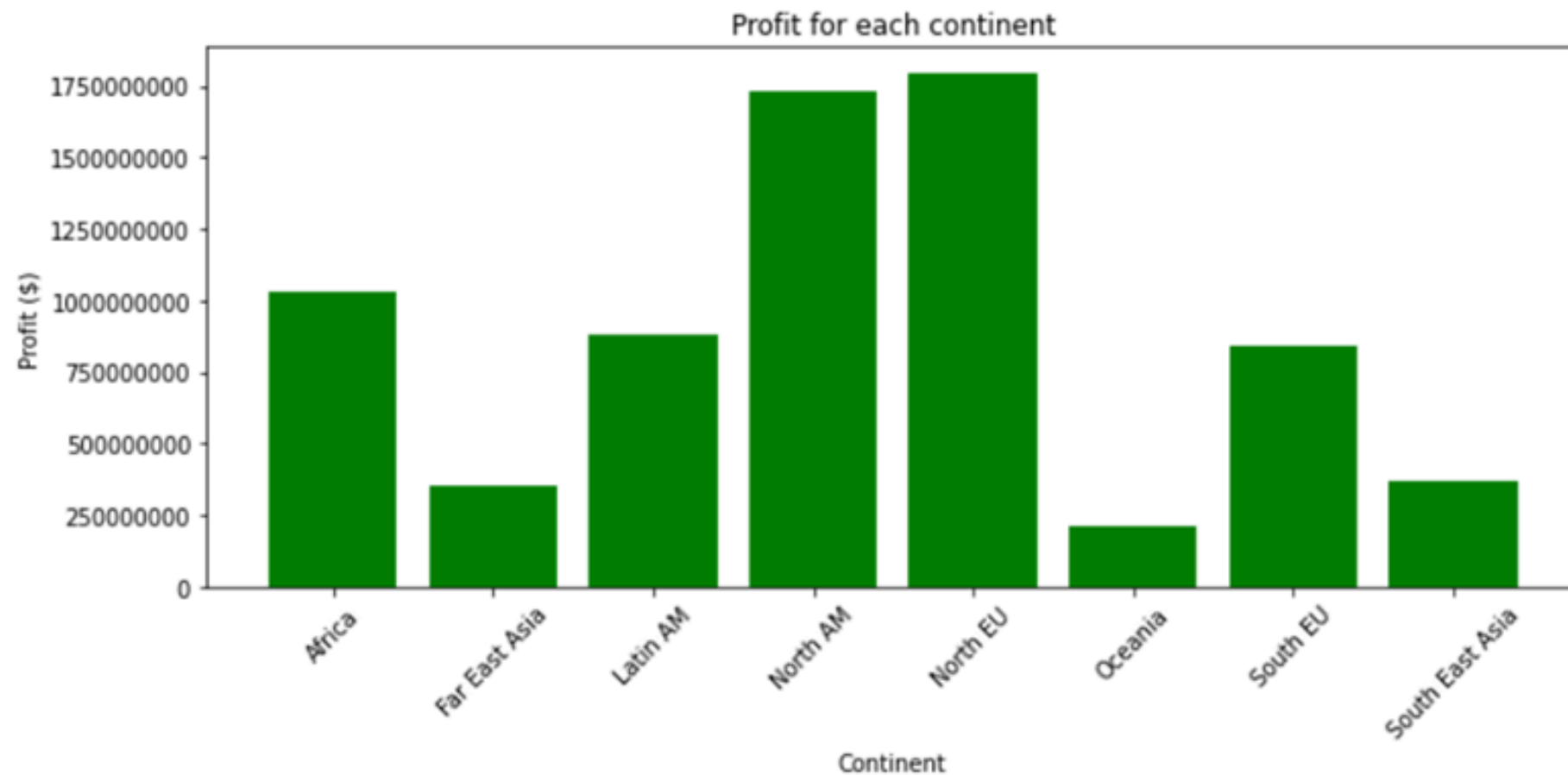
AFRICA
NORTH AMERICA
NORTH EUROPE
SOUTH EAST ASIA
FAR EAST ASIA
SOUTH EUROPE
OCEANIA
LATIN AMERICA

CONTINENTS

Total Profit: \$7,211,960,529.36
Total Loss: \$1,019,196,501.70

2.

CONTINENTS WITH MAXIMUM AND MINIMUM PROFIT



- The profit and loss column in the dataset has negative as well as positive values.
- The negative values indicate loss whereas the positive values indicate profit.
- Taking this into consideration , the above bar graphs have been plotted.
- It is observed that North EU has maximum profit figures and Oceania has minimum profit figures.
- Similarly , Far East Asia has maximum loss and Latin America has minimum loss figures.

3.

CUSTOMER SEGMENTS AND THEIR CONTRIBUTIONS TO PROFIT



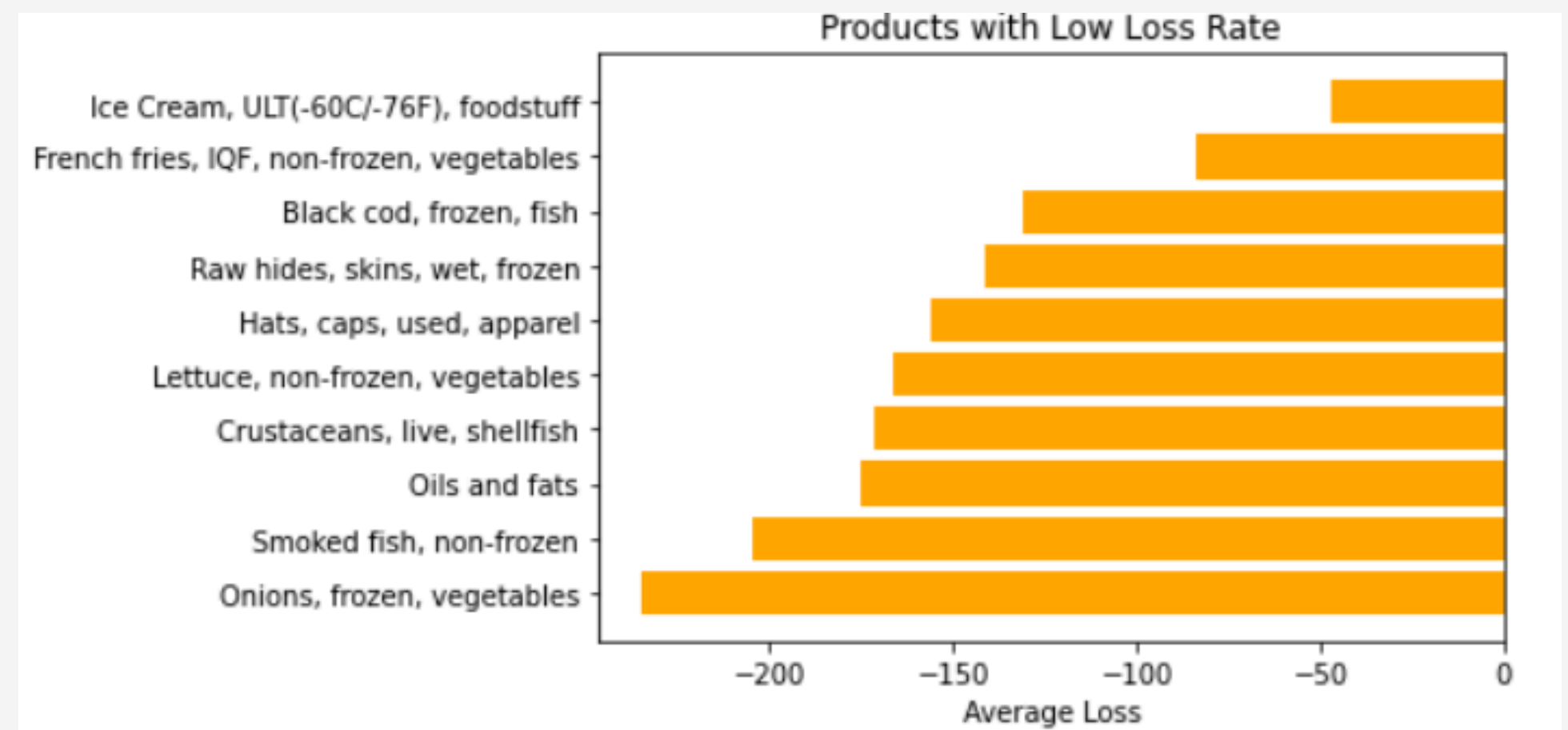
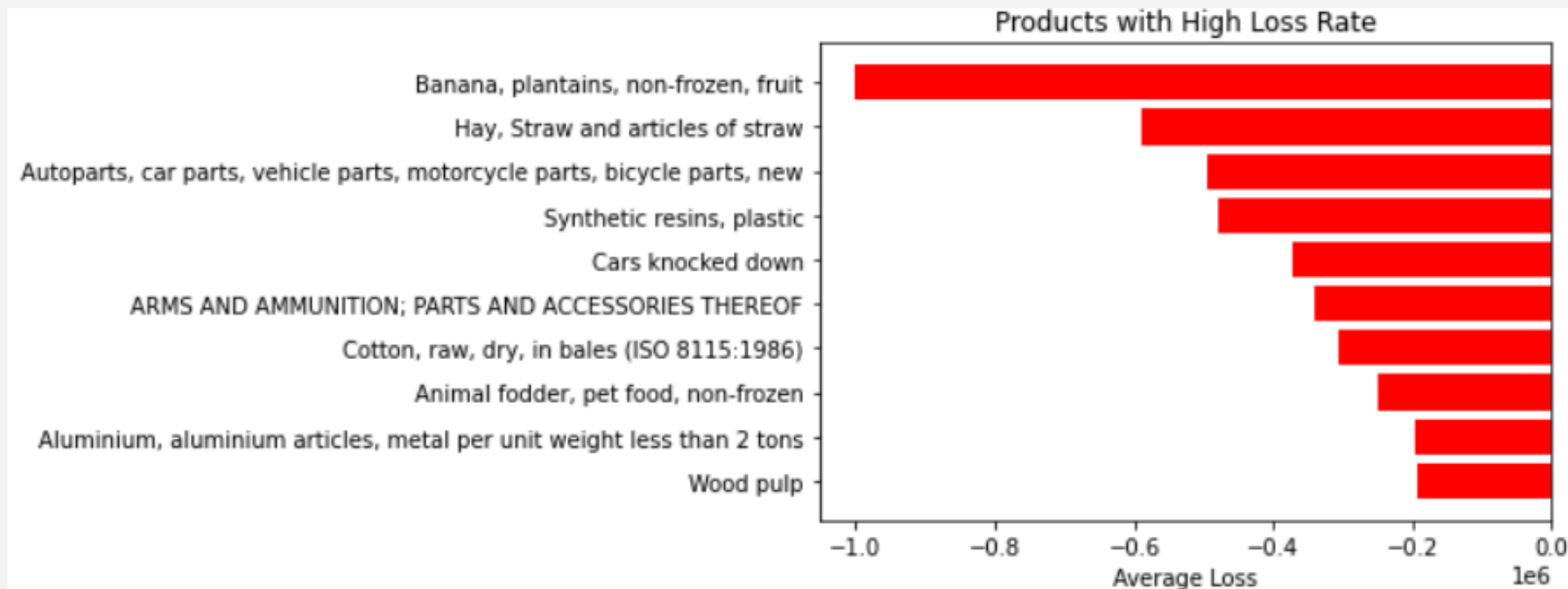
- CS5 contributes to the maximum profits of the business and CS6 contributes the least.
- It is also observed that CS6 contributes to maximum loss and CS5 contributes to minimum loss.

4. PRODUCTS THAT HAVE HIGH AND LOW PROFIT AND LOSS RATES



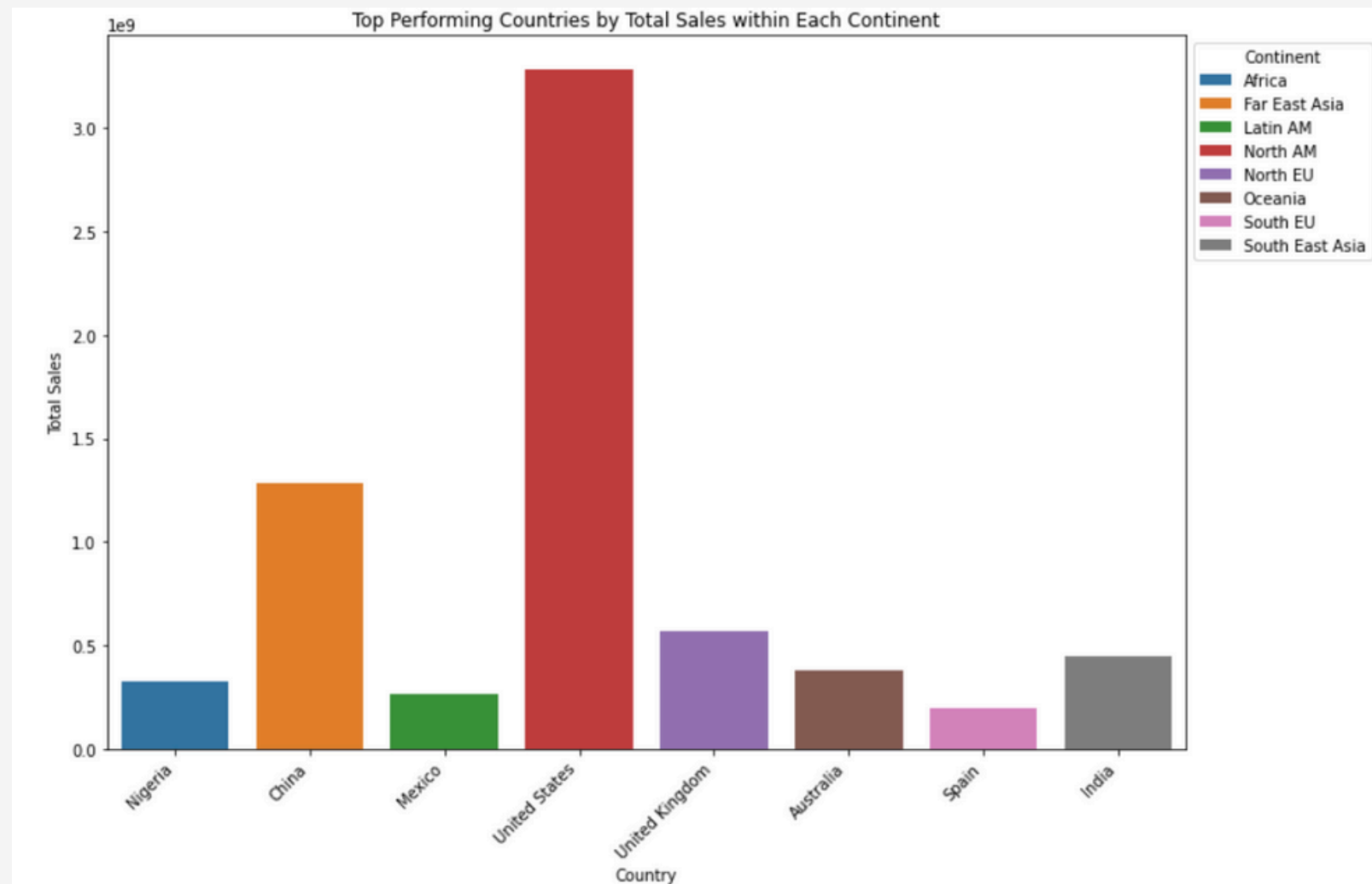
This depiction shows which 10 products have high and low profit rates

4. PRODUCTS THAT HAVE HIGH AND LOW PROFIT AND LOSS RATES

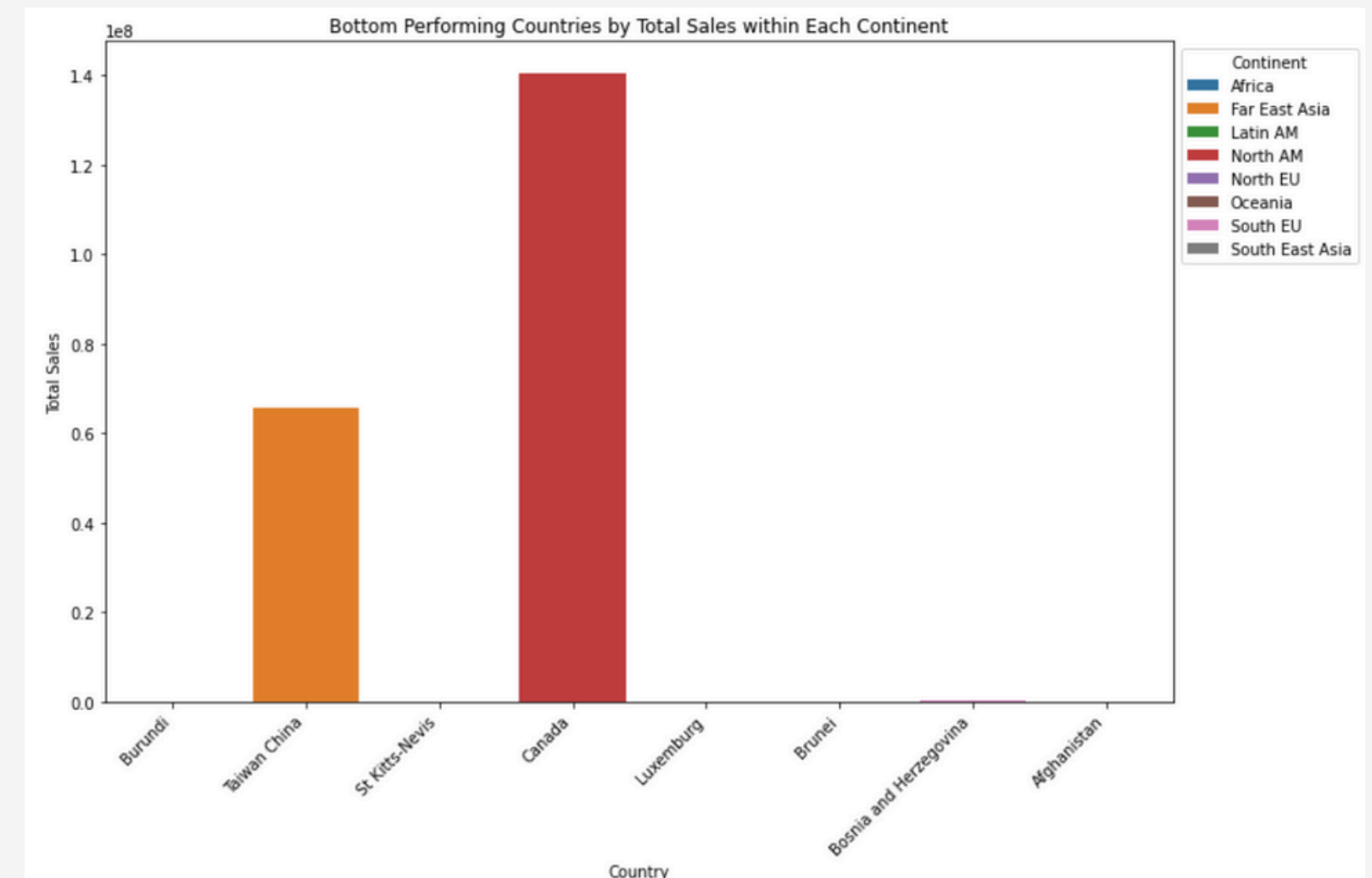


This depiction shows which 10 products have high and low loss rates

5. TOP AND BOTTOM PERFORMING COUNTRIES IN EACH CONTINENT



Top Performing Countries by Total sales



Bottom Performing Countries by Total sales

- it is observed that United states has the highest sales in North America.
- Same is shown for all continents.
- Similarly , also shows which country has least sales in each continent.

TOP 3 ACTIONS TO BE TAKEN WITH IMMEDIATE EFFECT

- Increase the market penetration / revenue.
- Can be done by decreasing cost of products and changing SLA's in low performing countries that are contributing to losses and have very low profit rate.
- Increasing cost in high performing countries to increase profits.
- New customer acquisition can also help. It can be done by providing skill development for heavy machinery.

1.

- CS6 and CS7 have very less profit percentage.
- To improve sales revenue and profit in CS6 – In – house skills development and training can be given on technical know – how of the heavy machinery.
- For CS7 since subscription terms are there , either reduce the cost or shift to another SLA that customer is willing to give. This will improve the profit rates.

2.

For the least selling products , immediate action needs to be taken.

2 steps can be taken –

- Dead inventory can be sold at very less cost to reduce the loss rates.
- Find out root cause behind low sales revenue and work on improvising strategies like cost reduction , change of SLA's terms etc. This is to optimize profits.

These steps are essential to quickly sell the dead inventory and focus on growing this stagnant market

3.

FORECAST FOR ONE YEAR AHEAD

Forecast for the next year:

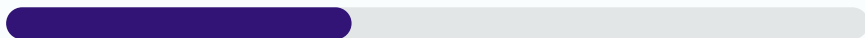
	Total Sales	Units Sold
Customer Segment		
CS1	5.144210e+08	62038.5
CS2	8.612748e+09	2572601.5
CS3	1.029049e+09	242195.0
CS4	5.083749e+09	1517167.5
CS5	8.745306e+09	2419284.5
CS6	1.249735e+05	20.0
CS7	3.437398e+05	38.5
CS8	8.874724e+08	414163.0
Total forecasted sales for the next year: \$24,873,213,509.36		

Difference in Sales (Next Year Forecast - This Year):

	Total Sales	Units Sold
Customer Segment		
CS1	8.573683e+07	0.0
CS2	1.435458e+09	0.0
CS3	1.715081e+08	0.0
CS4	8.472915e+08	0.0
CS5	1.457551e+09	0.0
CS6	2.082892e+04	0.0
CS7	5.728997e+04	0.0
CS8	1.479121e+08	0.0
Increase in Total Sales: \$5,429,085,384.34		
Percentage Increase in Total Sales: 27.92%		

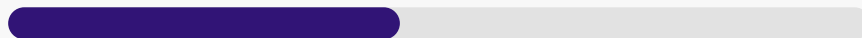
15%

Product Portfolio Optimization with increased sales increase to 15%



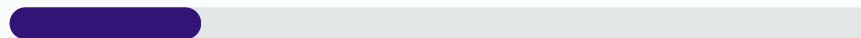
20%

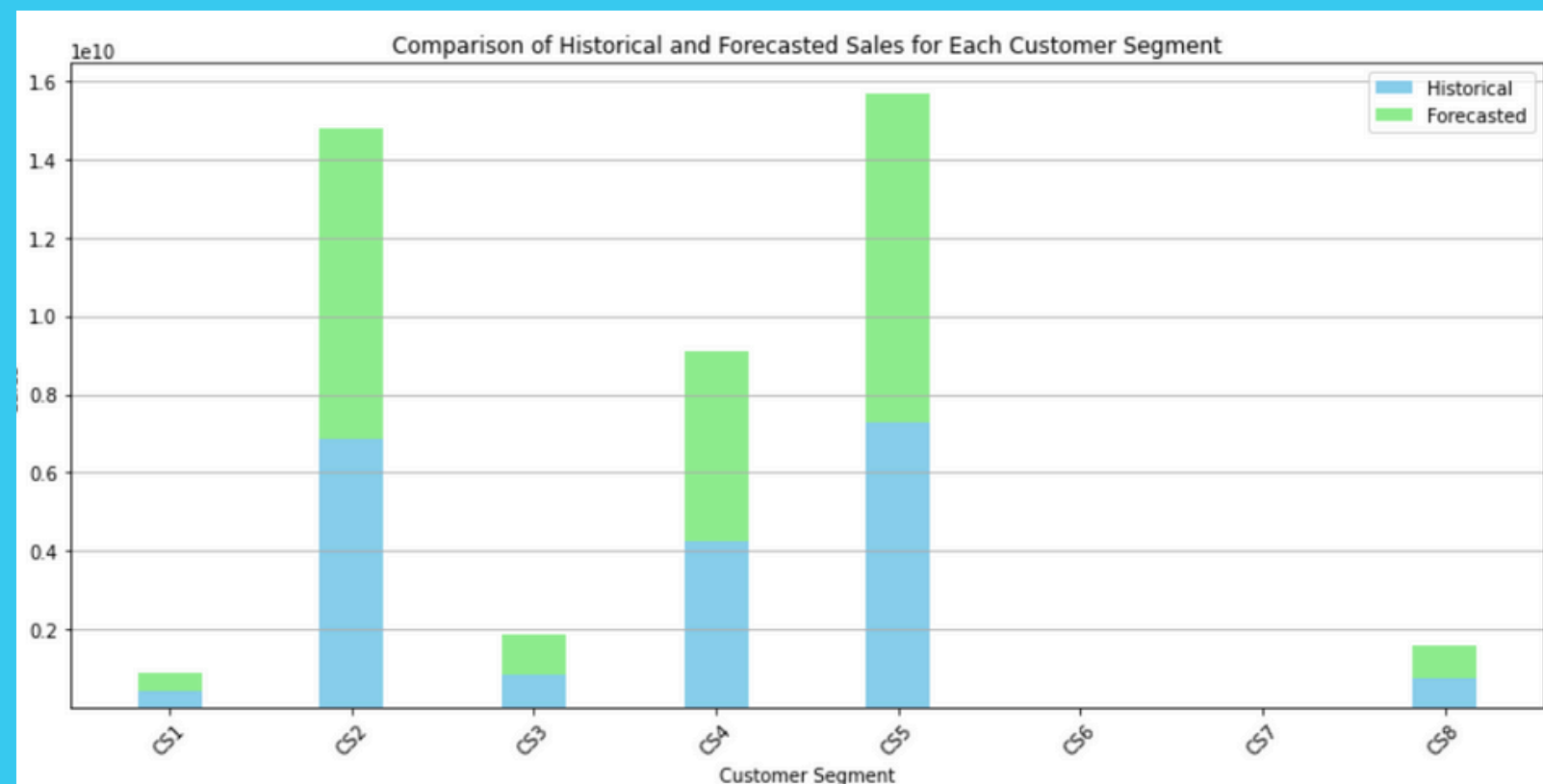
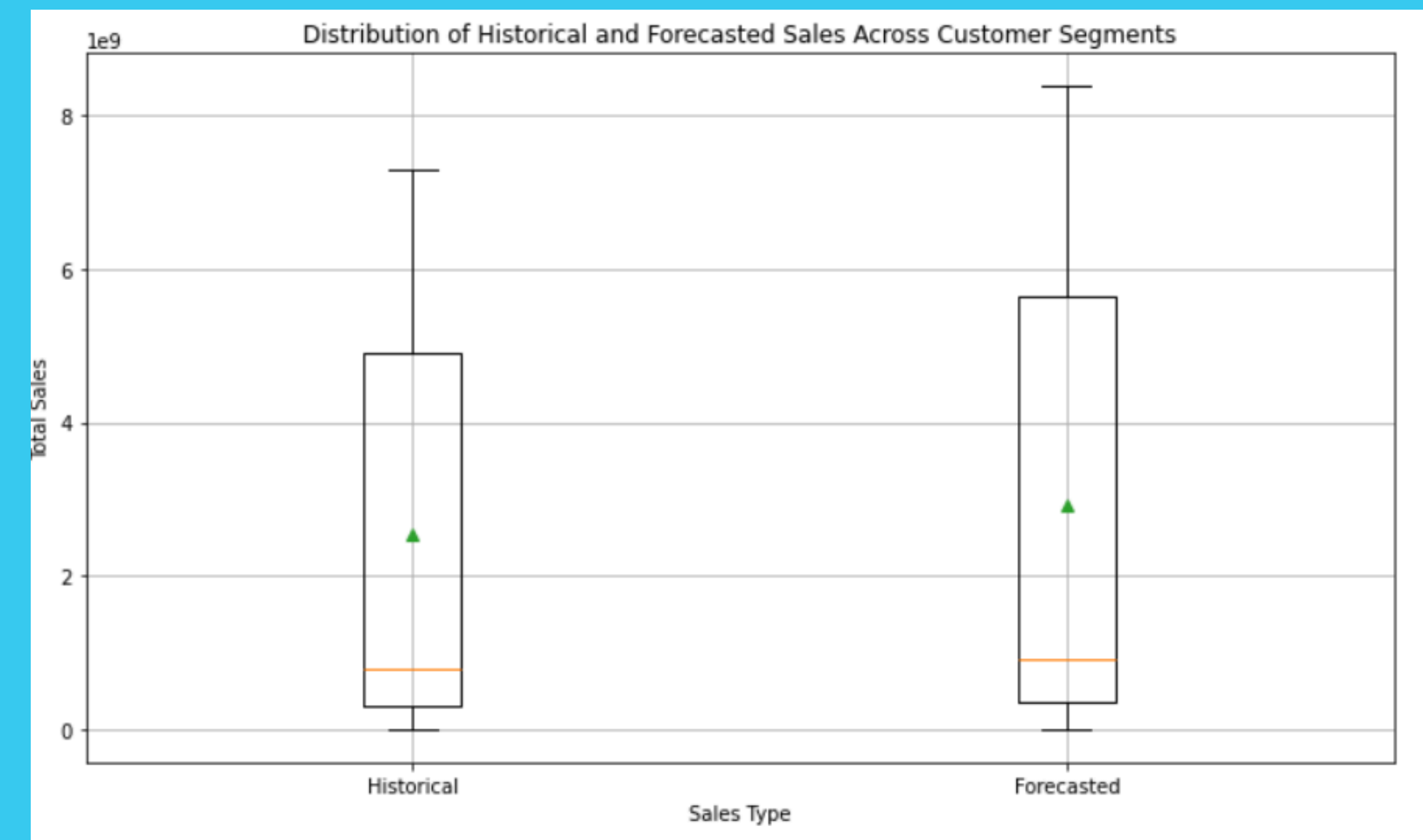
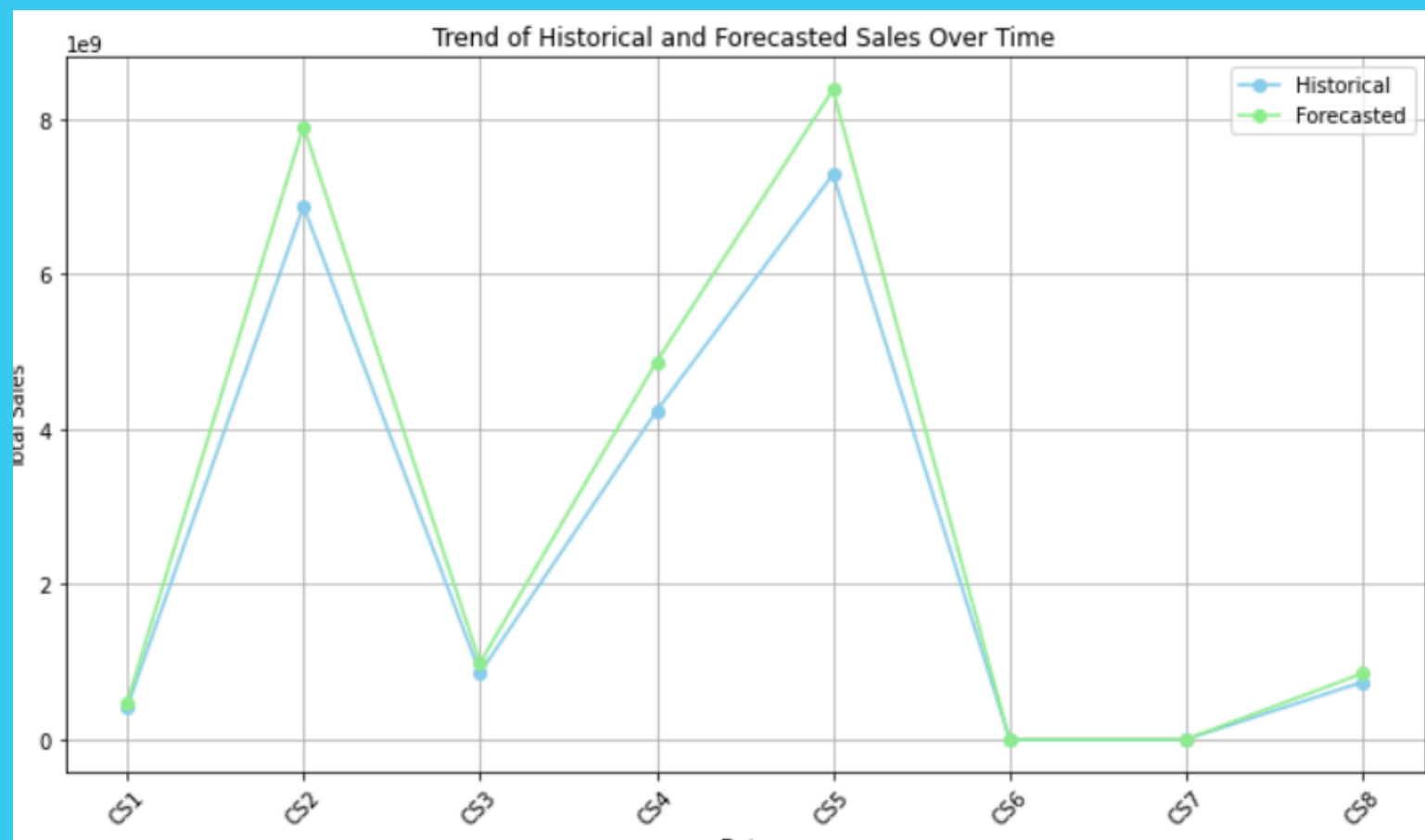
New Customer Acquisition with increased growth rate to 20%



10%

CS6 and CS7 Strategy Revamp with increased growth rate to 10%





- It can be observed that Percentage increase in total sales will be 27.92%.
- The total sales will reach upto 24 bn dollars approximately.
- CS6 and CS7 sales will increase by 10%.



OPPORTUNITIES FOR EXPANSION

01

PRODUCTS

- Can be done within the top-selling categories such as **Furniture, Electronics, and Garments**. Introducing new variants, accessories, or complementary products within these categories can attract a broader customer base and drive additional profits.
- Collaborating with suppliers or manufacturers of top-selling products can enable XYZ Inc. to strengthen its supply chain and gain access to exclusive offerings.

02

COUNTRIES

- With its large and diverse market, XYZ Inc. can further penetrate the **US** market by strengthening its distribution network, expanding its product offerings, and enhancing its brand presence.
- XYZ Inc. can explore opportunities to establish partnerships with local distributors, retailers, and e-commerce platforms.

03

INDUSTRIES

- Identifying the most booming industry segments, such as **Textiles** presents opportunities for expansion. XYZ Inc. can leverage its strengths and resources to develop tailored marketing strategies and product offerings that cater to the unique needs and preferences of these industries.
- Forming strategic partnerships and alliances with key players in booming industry segments, such as **Warehousing and Machinery**, can facilitate market penetration and business expansion.



OPPORTUNITIES FOR SHRINKAGE

01

PRODUCTS

- Products such as "**Banana, plantains, non-frozen, vegetables**", have exhibited negligible sales volume, indicating low market demand.
- Reviewing the performance of the least-selling products, XYZ Inc. should consider rationalizing or discontinuing items with minimal demand or profitability.
- For products with consistently low sales volumes, such as "**ARMS AND AMMUNITION; PARTS AND ACCESSORIES THEREOF**", XYZ Inc. may need to consider exiting certain markets or product categories altogether.

02

COUNTRIES

- To navigate challenges in the **Bosnian, Thailand** market, XYZ Inc. could explore alternative distribution channels, such as online platforms or specialty retailers, to reach target customers more effectively.

03

INDUSTRIES

- Industries such as **Construction Services, Publishing and warehousing** exhibit minimal growth, suggesting limited opportunities for expansion. By diversifying its portfolio across multiple industries, XYZ Inc. can spread risk and safeguard against economic fluctuations or disruptions in specific sectors.
- Conducting thorough market analysis and competitive intelligence in least booming industry segments, such as **Other**, provides valuable insights into market dynamics, competitive landscape, and potential growth drivers.

ADDITIONAL POINTS TO CONSIDER

Employee Training and Development:

- Invest in continuous training and development programs for employees to enhance their skills, productivity, and job satisfaction.
- A well-trained workforce can contribute significantly to business growth and customer satisfaction.
- This can also increase customers in high commitment SLA's

1.

Customer Loyalty Programs:

- Implement customer loyalty programs to reward repeat purchases, referrals, and engagement.
- This can foster customer loyalty and encourage long-term relationships, ultimately leading to higher retention rates and increased revenue.

2.

Expansion into New Markets:

- Explore opportunities for expanding into new geographical markets or diversifying product offerings to reach a wider customer base.
- Conduct market research to identify untapped opportunities and develop a strategic plan for expansion.

3.