

WALMART SUPERSTORE SALES ANALYSIS - POWER BI

GUVI Project II - Shweta Herlekar

Task 1 - About Walmart

Walmart is one of the world's largest retail corporations, operating a chain of hypermarkets, discount department stores, and grocery stores. Walmart's business model focuses on offering everyday low prices (EDLP) to attract customers. Walmart is known for its low prices and wide range of products, including electronics, clothing, household goods, and groceries. The company has a significant presence in the United States and operates internationally in countries such as Mexico, Canada, the United Kingdom, and China, among others. Additionally, Walmart has a strong focus on sustainability and has implemented various initiatives to reduce its environmental impact. The company has also expanded into e-commerce, competing with online retailers like Amazon.

Walmart v/s Amazon

Walmart:

Business Model: Brick-and-mortar retail stores and e-commerce platform

Physical Stores: Operates thousands of physical stores globally

Fulfillment: Utilizes its stores for click-and-collect and as fulfillment centers

Delivery Options: Offers in-store pickup, curbside pickup, and same-day delivery in some areas

Pricing Strategy: Emphasizes everyday low prices (EDLP)

Product Range: Offers a wide range of products, including groceries, electronics, and household goods

Loyalty Programs: Offers Walmart+ for perks like free shipping and discounts

Technology Focus: Investing in e-commerce and digital technology, including AI and data analytics

Market Presence: Strong presence in the United States and several other countries

Sustainability: Has sustainability goals and initiatives, including renewable energy and waste reduction

Task 1 - About Amazon

Amazon:

Business Model: Primarily an e-commerce platform, also offers cloud computing, AI, and other services

Physical Stores: Limited physical stores, focus is mainly online

Fulfillment: Extensive network of fulfillment centers for fast shipping

Delivery Options: Offers fast shipping options like Prime for 1-2 day delivery

Pricing Strategy: Prices can vary, often competitive with dynamic pricing

Product Range: Extensive range of products, including third-party sellers

Loyalty Programs: Prime membership includes benefits like free shipping, streaming, and more

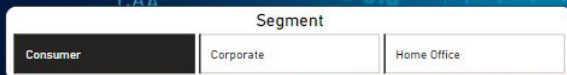
Technology Focus: Known for its tech innovation, including AI, cloud services, and smart devices

Market Presence: Global presence, with operations in many countries

Sustainability: Has sustainability goals and initiatives, including carbon neutrality and renewable energy

Task 2 - Profit Analysis

Profit Analysis



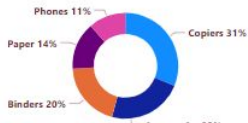
363K

Sum of Sales

57K

Sum of Profit

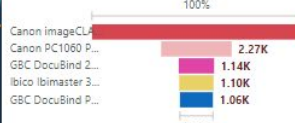
Sum of Profit by Sub-Category



Sum of Sales and Sum of Profit by Year



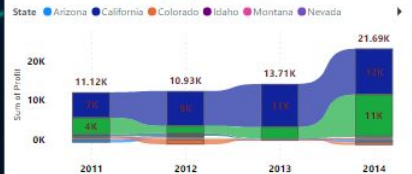
Sum of Profit by Product



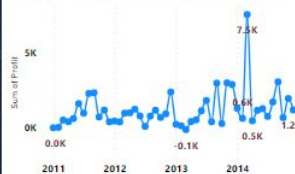
Sum of Profit and Sum of Sales by Category



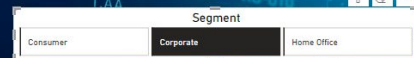
Sum of Profit by Year and State



Sum of Profit by Year, Quarter and Month



Profit Analysis



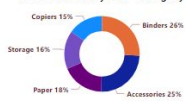
226K

Sum of Sales

34K

Sum of Profit

Sum of Profit by Sub-Category



Sum of Sales and Sum of Profit by Year



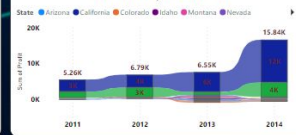
Sum of Profit by Product



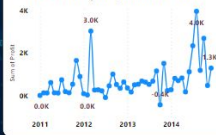
Sum of Profit and Sum of Sales by Category



Sum of Profit by Year and State



Sum of Profit by Year, Quarter and Month



Profit Analysis



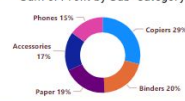
137K

Sum of Sales

17K

Sum of Profit

Sum of Profit by Sub-Category



Sum of Sales and Sum of Profit by Year



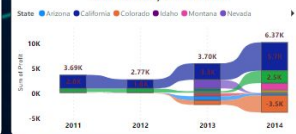
Sum of Profit by Product



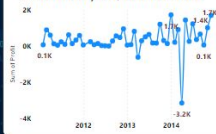
Sum of Profit and Sum of Sales by Category



Sum of Profit by Year and State



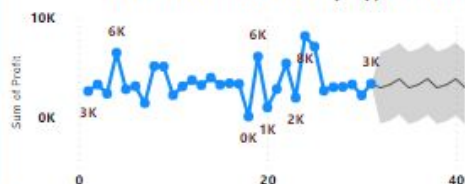
Sum of Profit by Year, Quarter and Month



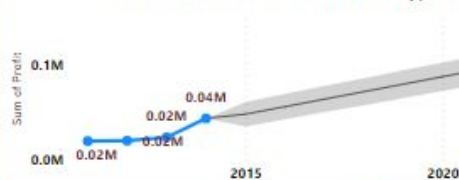
Task 2 - Profit Forecasting

Profit Forecasting For Walmart

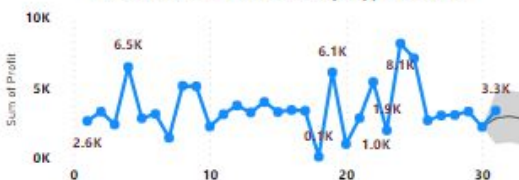
Profit Forecast For The Day (Type 1 Chart)



Profit Forecast For The Quarter (Type 1 Chart)



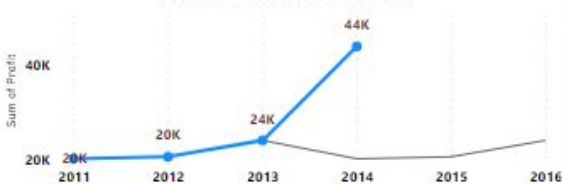
Profit Forecast For The Day (Type 2 Chart)



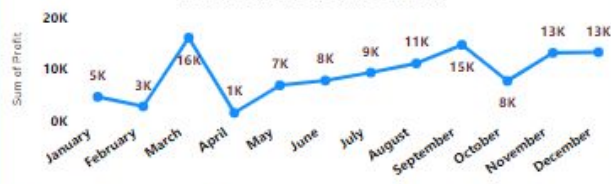
Profit Forecast For The Quarter (Type 2 Chart)



Profit Forecast For The Year



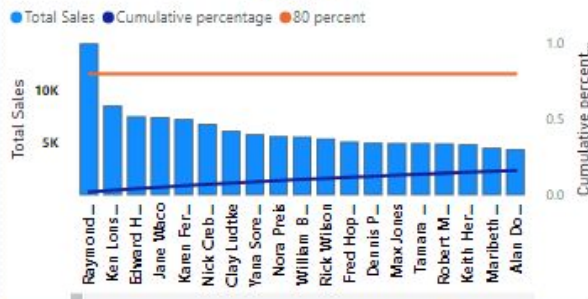
Profit Forecast For The Month



Task 3 - Pareto Test

Pareto Test - 20% customers contributing to 80% sales

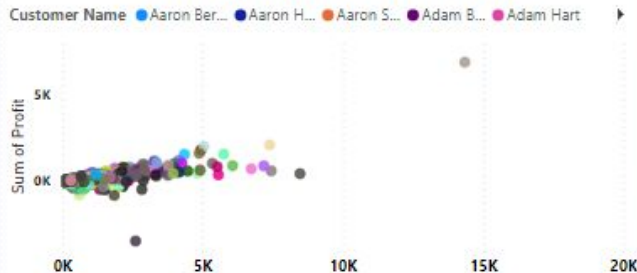
Total Sales, 80 % Sales & Cumulative Percentage By 20 % Customers



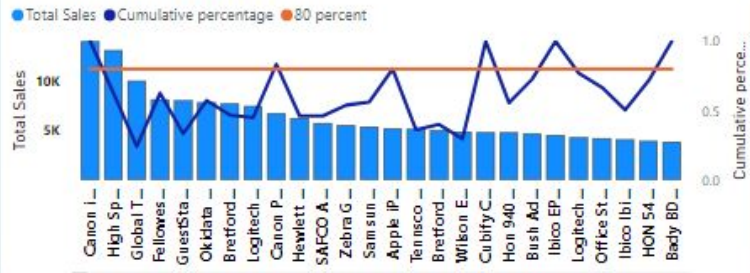
Customer Name	Total Sales	Rank	Cumulative percentage	Sum of Profit
Raymond Buch	14,345.28	1	0.02	6,807.09
Ken Lonsdale	8,472.39	2	0.03	426.61
Edward Hooks	7,447.77	3	0.04	589.75
Jane Waco	7,391.53	4	0.05	2,073.28
Karen Ferguson	7,182.77	5	0.06	878.44
Nick Crebassa	6,734.23	6	0.07	706.57
Clay Ludtke	6,069.64	7	0.08	890.34
Yana Sorensen	5,754.17	8	0.09	1,551.59
Nora Preis	5,564.60	9	0.10	367.71
William Brown	5,523.05	10	0.10	825.29
Rick Wilson	5,347.87	11	0.11	1,018.50
Fred Hopkins	5,054.48	12	0.12	1,991.90
Dennis P...	4,941.68	13	0.12	1,799.99
Total	7,25,457.82	1	0.02	1,08,418.45

[See details](#)

Total Sales and Sum of Profit by Customer Name



Sales Chart Of Best Selling Products



Task 4A - Sales & Revenue Analysis

Sales & Revenue Analysis - Overview

12K

Sum of Quantity

725K

Sum of Sales

108K

Sum of Profit

4

Average of Avg...

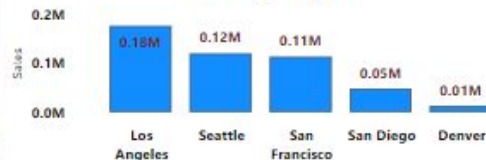
Sales by Category



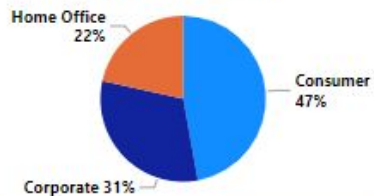
Sales Over Year & Category



Sales by Region



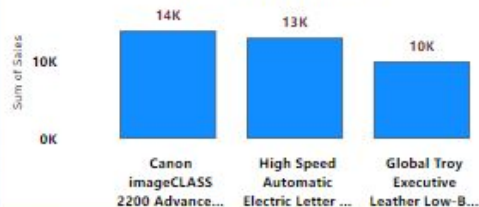
Sales by Segment



Sales by Category and Region

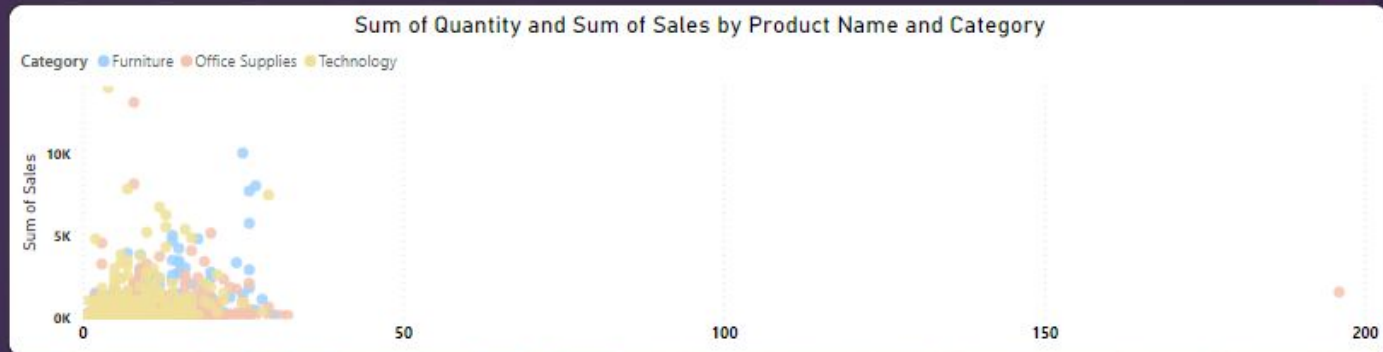


Top Selling Products



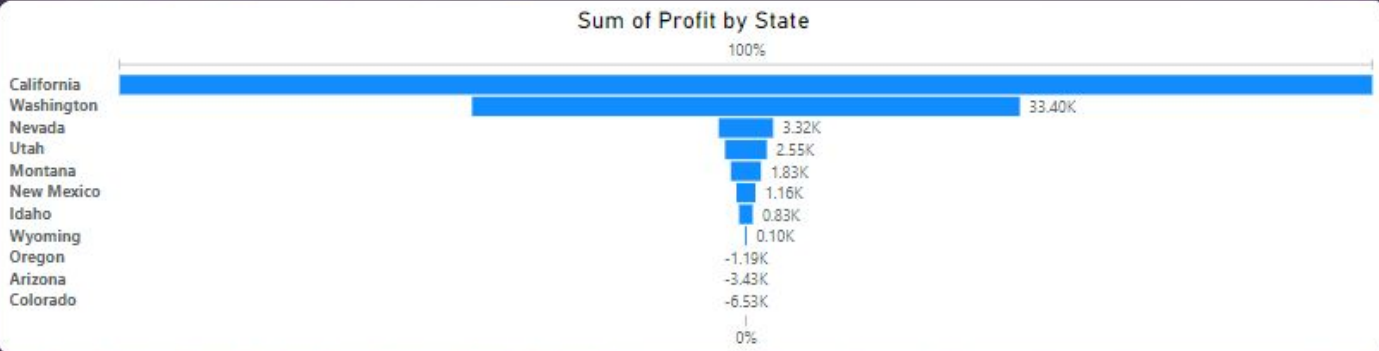
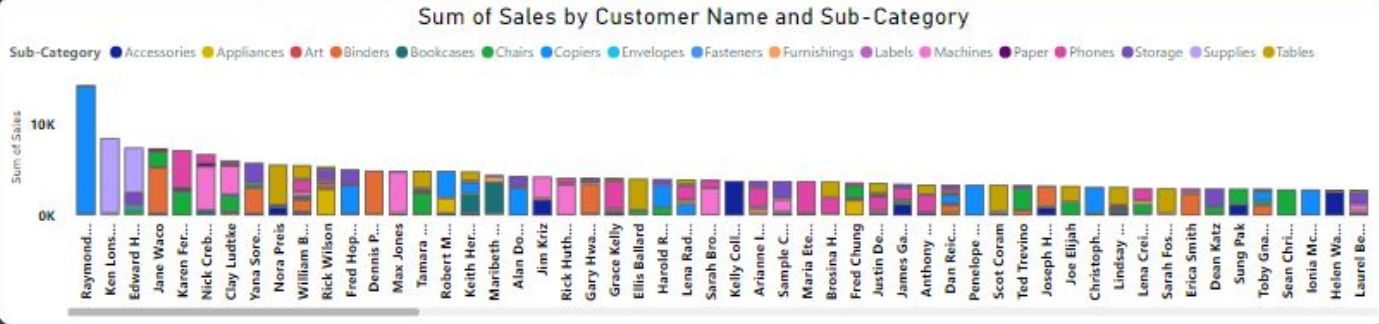
Task 4B - Inventory Management Analysis

Inventory Management Analysis



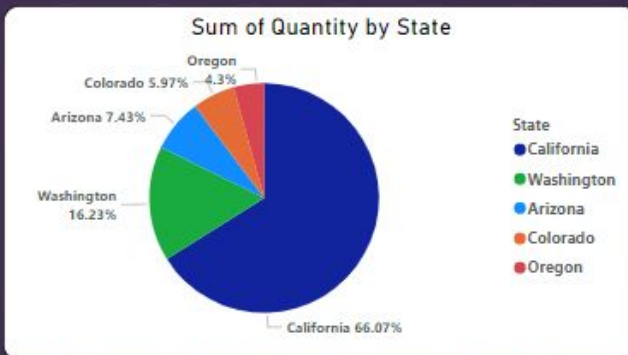
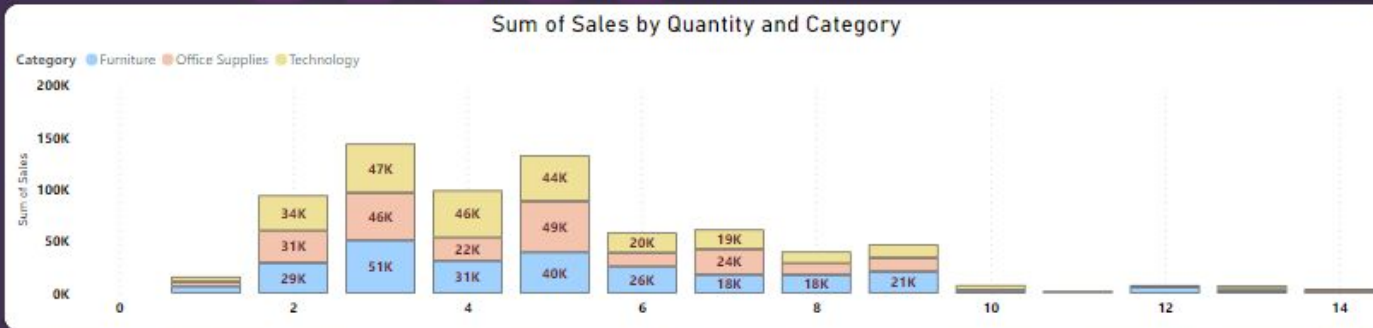
Task 4C - Customer Insights Analysis

Customers Insights Analysis



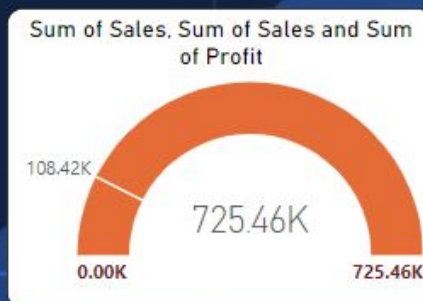
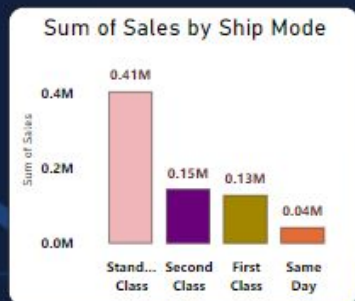
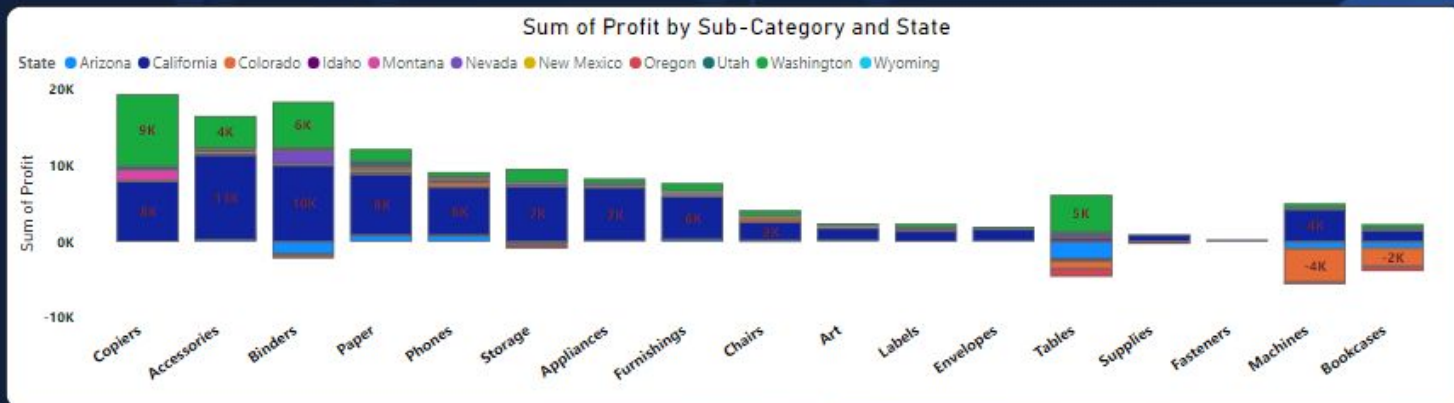
Task 4D - Store Performance Analysis

Store Performance Analysis



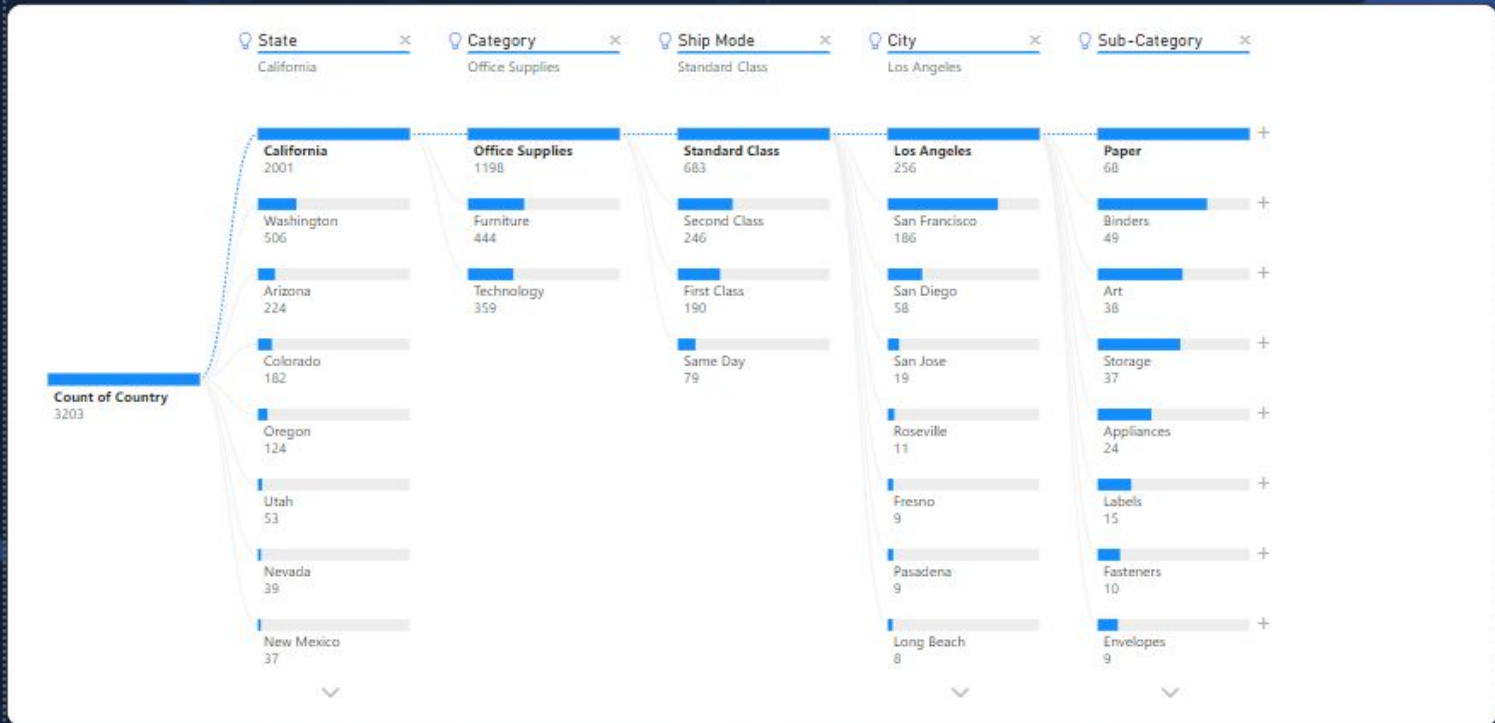
Root Cause Analysis

Root Cause Analysis



Root Cause Analysis

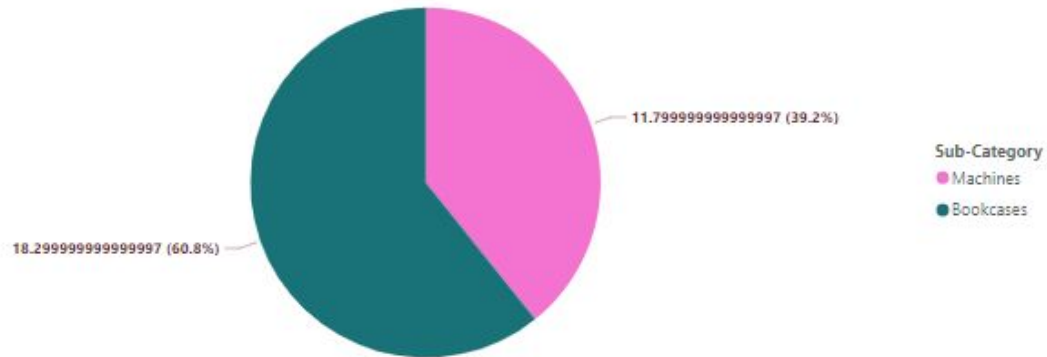
Root Cause Analysis



Root Cause Analysis

Root Cause Analysis

Sum of Profit and Sum of Discount by Sub-Category



Insights

Insights

Profit Analysis and Forecasting

1. Amongst all segments, consumer segment has turned out to be most profitable, also giving maximum number of sales.
2. Profit has been rising consistently from the state of California over the period from 2011 - 2014.
3. Profit ratios have peaked in the year 2014 for segments-'Consumer' and 'Corporate' but have plummeted for the 'Home Office' segment.
4. Copies have been the top performing subcategory for Walmart.
5. Negative profit numbers have been observed for regions of Colorado, Oregon and Arizona. Deep-diving into customer demographics and analytics of these regions can help to leverage these markets well. Creating appropriate demand and mapping customers with their demands can help to increase sales and profit numbers.
6. Profit Forecast for Walmart is expected to reach 1.5M by the end of 2024.
7. Over the course of 2024, profit numbers are expected to peak in 2 time periods - March-April and September- October. Profit numbers are expected to take a dip around November - regaining numbers in December.

Sales and Revenue Analysis

1. Sales for Technology and Furniture categories are at par, sales for office supplies are slightly lesser.
2. Los Angeles has delivered on maximum sales and Denver has delivered on least sales for Walmart.
3. Seattle and Los Angeles are contributing to more than 50 percent sales across segments for Walmart.
4. Copier, Letter Opener and Low-Back Tilter have been the best selling products.

Pareto Analysis:

1. The Pareto principle, also known as the 80/20 rule, states that roughly 80% of the effects come from 20% of the causes. In the context of testing, a Pareto test could refer to analyzing the results of a test to identify which factors are having the most significant impact.
2. Advanced Copier, Printers, Electric Binding System and Electric Letter Opener contribute to more than 80 percent sales for Walmart.
3. Focusing on enhancing the in-store and online shopping experience, refining product categories to better meet customer demands, implementing competitive pricing strategies and investing in significant e-commerce expansion can help to increase the loyal and high-paying customer base for Walmart.
4. Innovation in products and targeted marketing strategies can help to extract more revenue.

Insights

Root Cause Analysis:

1. Profit percentage is about 15 percent in comparison to overall sales. Customer loyalty programs, streamlining the supply chain to reduce costs, embracing innovation to meet evolving customer demands and implementing targeted marketing strategies can help to improve profit ratios and numbers for sales.
2. Profit ratios have peaked in the 3rd quarter Q3 last year for Walmart.
3. Weekend offers can be done more aggressively as majority of our audience turn into active buyers on weekends and holidays.
4. Walmart is facing losses in the sub-categories of machines and bookcases. The states of Colorado and Arizona are the top states facing losses.
5. For shipping mode, sales derived from the same day deliveries are least, indicating that it is the worst performing shipping mode category. Improving on-ground services and activities to increase same day sales can lead to better performance of this category. Average days for a delivery are about 4. Ways and means can be implemented to reducing delivery time thereby engaging more customers. Delivery days for Amazon is just 2 which is half. This could lead to a lot of our audience switching to our competitors leading to lesser profit margin for Walmart.
6. For the categories of machines and bookcases, exorbitant discount has been provided - Machines- 39 percent and Bookcases - 60 percent which is leading to losses. A reduction in discount percentage and product assortment can help to pull these categories in profit-making categories.
7. Sales in California are booming and can be leveraged more through seasonal promotions, local partnerships and cultural campaigns. Tapping into upcoming and growing markets of Washington, Arizona and Colorado can help to boost sales for 2024.
8. Creating a demand for furniture and technology products in metropolitan and cosmopolitan regions like Oregon, Arizona and Washington can help Walmart penetrate into bigger, competitive markets.
9. Raymond Buch, Ken Lonsdale and Edward Hooks are the top 3 customers contributing to major sales for Walmart's products. Leveraging digital marketing campaigns of search engine optimization and targeted google advertising for customer demographics similar to the top 3 customers can help to expand customer base, especially of like-minded customers and buyers.
10. Customers like Jack Lebron, Sara Luxembourg and Thais Sissman are contributing least to sales. Weekend offers/loyalty programs can be offered to these to increase their probability of buying Walmart products and becoming loyal customers.
11. California and Washington have been the top performing states for Walmart and innovation-based strategies can be implemented to strengthen their current market.

To increase sales, Walmart could consider several strategies:

1. **Enhanced E-commerce Experience:** Improve the online shopping experience, including website usability, product recommendations, and checkout process to increase online sales.
2. **Omni-channel Integration:** Further integrate online and offline channels to provide a seamless shopping experience, such as offering in-store pickup for online orders and vice versa.
3. **Product Expansion:** Continuously expand product offerings to meet diverse customer needs and preferences, including exclusive or high-demand items.
4. **Personalized Marketing:** Implement personalized marketing strategies based on customer data to increase engagement and drive sales.
5. **Price Optimization:** Continuously monitor and adjust pricing strategies to remain competitive and appeal to price-conscious shoppers.
6. **Customer Loyalty Programs:** Enhance loyalty programs like Walmart+ to incentivize repeat purchases and increase customer retention.
7. **Store Experience:** Improve in-store experiences through layout optimization, staff training, and customer service to drive foot traffic and sales.
8. **Supply Chain Efficiency:** Enhance supply chain operations to ensure product availability, reduce out-of-stock instances, and improve overall customer satisfaction.
9. **Localized Marketing:** Tailor marketing efforts to local markets to increase relevance and drive foot traffic to stores.
10. **Sustainability Initiatives:** Emphasize sustainability initiatives, which can resonate with eco-conscious consumers and enhance brand image.

Implementing these strategies could help Walmart drive sales growth and strengthen its position in the retail market.



THANK YOU!