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Finance Project: Data Exploration Analysis Portion With SQL

06-17-2024

Insights Gathered

1. The dataset ranges from 01/01/15 to 12/31/15
2. There are 2,878 records from 2015 and 3,198 records from 2016
3. The 4th quarter has the highest revenue and product quantity
4. December and October has the highest revenue whereas July and August have the lowest
5. Revenue on average is high during ending and starts of the year, during the summer months of August and June, they dip down and rise back up early Fall
6. The minimum age is 17, the average age is 21.69 and the maximum age is 25
7. Similarly, the older an individual is, the higher the quantity of products they purchase
8. There are 2,828 females and 3,248 males
9. Both genders have the biggest preference for Accessories
10. State wise, both genders have the biggest preference for California
11. 2015, overall had the lowest number of people from both genders especially in the first half of the year. Conversely, the ending months of 2015 and second quarter of 2016 saw the highest number of people from both genders
12. The United States has the highest revenue
13. California - USA, England - United Kingdom, Washington - USA have the highest revenues state / region wise
14. California - USA, England - United Kingdom, Washington - USA have the largest preferences for Accessories out of all other state/region combinations.

15. England - United Kingdom and California - United States also have the largest preferences for Bikes
16. California - USA also has the largest preference for Clothing
17. California - USA and England - United Kingdom have the biggest share of customers
18. California-USA is very over-represented with more people than on average than other regions 5X their data
19. The top selling product categories are Accessories, Clothing, and Bikes in first, second, and third place respectively
20. Similar to the top selling rankings, the product categories with the highest unit prices are Accessories, Clothing, and Bikes first, second, and third place respectively
21. The sub-categories that generate the most revenue are Mountain Bikes, Tires and Tubes, Road Bikes, Helmets and Jerseys from first to fifth place respectively
22. Generally, the bigger the unit cost, the bigger the unit price
23. Mountain Bikes, Touring Bikes, Road Bikes, Gloves, and Hydration Packs have the highest average cost/revenue ratio
24. The minimum quantity in the data is 1, the average is 1.99, and the maximum is 3
25. Generally, the smaller the unit price, the more greater the quantities sold
26. Prices are highest in July, February, and December. Prices are lowest in August, October, and June
27. Mountain Bikes have the highest average unit price followed by Touring Bikes, Road Bikes, and Hydration Packs
28. Bottles and Cages' have the lowest average unit price followed closely by socks, caps, and cleaners.

29. What is the overall revenue trend over the years?
30. Total revenue decreased from 2015 to 2016
31. Average revenue/Cost ratio is generally decreases throughout the months
32. Similarly, Average revenue/Cost ratio is generally decreases throughout the quarters
33. Average revenue is highest in the first quarter of the year and then goes down gradually for the next to quarters and rises back up in the 4th quarter
34. Bikes have an average profit of 618.1, Clothing have an average profit of 298.26 and Accessories have an average profit of 157.61
35. The most expensive product categories have the highest average profit
36. Generally, the older an individual is, the higher the revenue they generate and the quantity of products they purchase on average
37. Generally, the bigger the unit price, the bigger the average revenue generated by the product
38. Both men and women have the biggest preference for Tires and Tubes in first place, Bottles and Cages in second place and Helmets in third palce
39. Bikes have the highest average unit cost and average revenue followed by clothing and accessories
40. The average purchase quantity is 1.99
41. Texas customers purchase 3 items on average which is the highest. Wyoming custmoers have the smallest average quantity at 1
42. Bikes have the biggest average purchase size followed by clothing and accessories
43. Customers shop the most in the Spring and the Fall months followed by Winter and very little in the Summer months

44. Males also generate the highest average revenue
45. Yes, from earlier queries it was found that the older an individual is, the more items they purchase and the higher the revenue generated.
46. Bikes product category was the only category to grow from 2015 to 2016 from an average revenue of 1455.54 to 1508.38
47. The unit price of all product categories decreased from 2015 to 2016
48. Costly products generate the highest revenue
49. December, October, May, and April are the strongest months for sales. They have the highest accumulated sales from 2015 - 2016
50. The 4th and 2nd quarters are the strongest quarters for sales from 2015 to 2016
51. From my exploratory data analysis, higher cost correlates with revenue hence profitability. So increasing the price of a product would result in better profitability. Additionally, products that have to do with bikes or bike parts have high profitability. In short, a seller should prioritize selling bike related items at a reasonably high price for good profitability
52. Companies can decide to expand their business in California and England given that those two places are where most revenue is generated, by quite a margin as well
53. Using insights from customer demographics, companies can decide which ages to advertise to. Additionally, it can guide their decision making when it comes to producing new products
54. Based on patterns and data from previous years including but not limited to profits and revenue data, companies can decide which products are worthy of prioritizing, production

and marketing wise. Additionally, they can compare how they did against their competitors and analyze what made their competitors perform better or worse than them and adapt accordingly