

The Executive Summary for Company XYZ Q1 Business Data

The following summary report is the result of a data analysis performed on the Quarter 1, 2019 business data of Company XYZ supermarkets in Abuja, Lagos and Port Harcourt. The goal of this data analysis project is to identify insights that can further improve productivity and ensure cost-effective operations.

1) The data and modelling approach

The dataset was well collected as there is no case of missing data. The data for each location were combined to generate a global dataset which was analysed. The data format in each column was checked, the date and time data were converted to standard forms, and the summary statistical attribute of the dataset was computed. Data aggregation with respect to the city was performed, and the sum and average value of the tax, total revenue per sale, cost of goods sold (cogs) and gross income were computed, and these revealed various trends and insights.

2) Key insights from the data analysis

A total of 1000 sales were made across the three branches for the 3-month period, with 342 in Lagos, 332 in Abuja and 328 in Port Harcourt. The highest total single sale is ₦375,354.00, and the minimum is ₦3,844.26. Epay is the most used means of payment with 345 transactions, followed by cash payment with 344 and card payment with 311 transactions. Also, the minimum customer satisfaction rating is 4, and the maximum is 10, with an average value of 6.97. The lowest single and the overall average customer satisfaction rating occurred at Branch B, as shown in Figure 1.

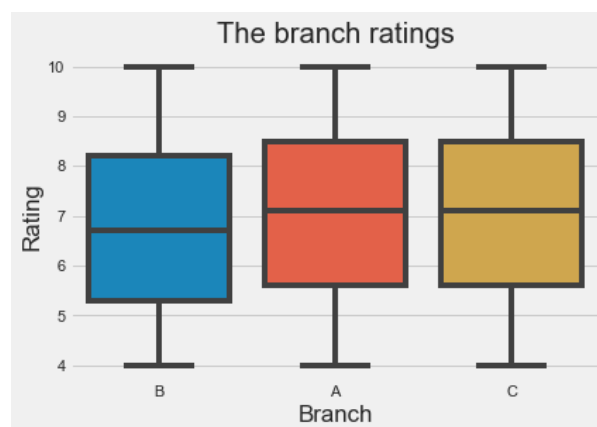


Figure 1. A box plot of customer rating

The total cost of goods sold for Abuja is ₦36,410,630.40 with a gross income of ₦1,820,531.52, and ₦36,411,555.60 for Lagos with a gross income of ₦1,820,577.78, and ₦37,909,270.80 for Port Harcourt with a gross income of ₦1,895,463.54. Regarding the total number of transactions for the three branches, Fashion Accessories is the highest product line while Health and Beauty product line has the lowest, as shown in Figure 2.

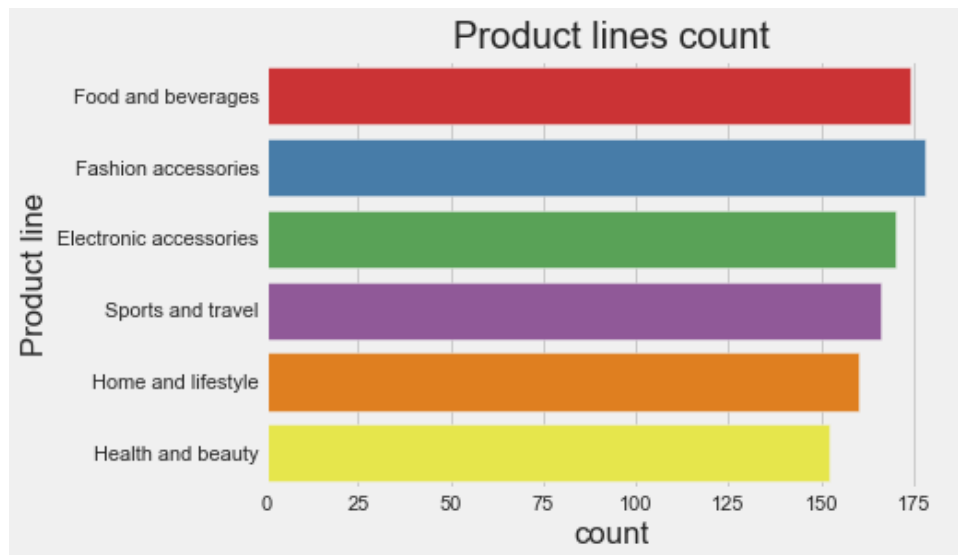


Figure 2. A bar chart of sales per product line

In terms of income, Sports and Travel generated the highest gross income of ₦944,962.74, while Electronic Accessories had the lowest gross income of ₦931,500.54 as shown in Table 1 and Figure 3 using the calculated gross margin (4.762%) per product line and per city.

Table 1. Financial analysis per product line

PRODUCT LINE	TOTAL REVENUE		COGS		GROSS INCOME	
	sum	mean	sum	mean	sum	mean
Sports and travel	19,844,217.54	119,543.48	18,899,254.80	113,850.93	944,962.74	5,692.55
Home and lifestyle	19,390,288.68	121,189.30	18,466,941.60	115,418.39	923,347.08	5,770.92
Health and beauty	17,709,746.04	116,511.49	16,866,424.80	110,963.32	843,321.24	5,548.17
Food and beverages	20,212,143.84	116,161.75	19,249,660.80	110,630.23	962,483.04	5,531.51
Fashion accessories	19,550,122.20	109,832.15	18,619,164.00	104,602.04	930,958.20	5,230.10
Electronic accessories	19,561,511.34	115,067.71	18,630,010.80	109,588.30	931,500.54	5,479.41

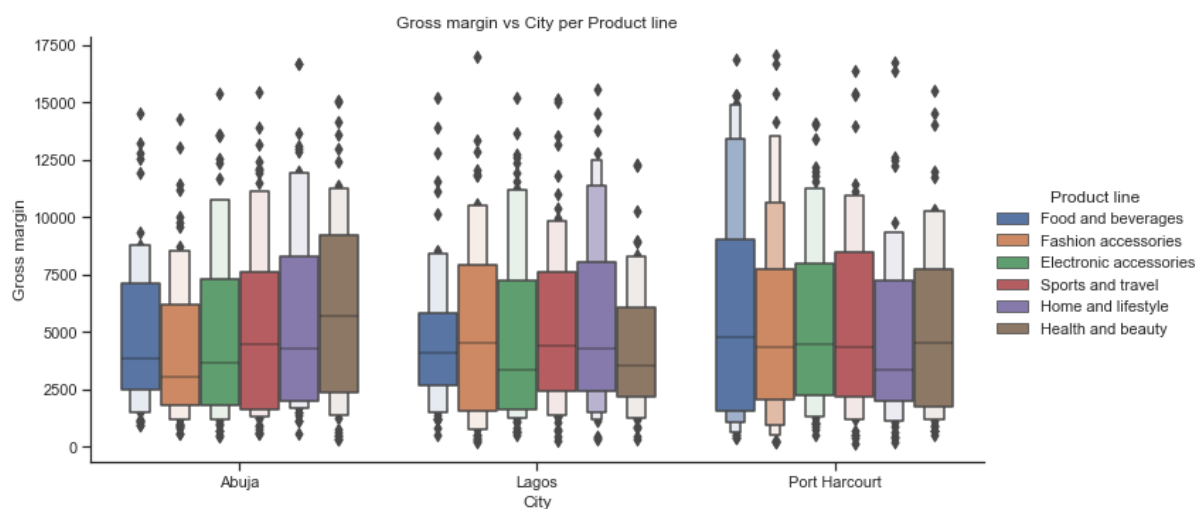


Figure 3. A bar chart of sales per product line

3) Conclusions

The data analysis shows that, on average, women spend significantly more on Food and Beverages, Fashion Accessories, and Home and Lifestyle while men spend more on Health and Beauty. This can help in targeting customers with various offer packages. Also, Branch B in Abuja had the lowest customer satisfaction rating, and this may require strategic intervention.

Report written and submitted by:

Adekitan A. I.

February 06, 2022