



جامعة مصر للمعلوماتية  
EGYPT UNIVERSITY  
OF INFORMATICS



Ministry of Communications  
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# Supermarket Sales Analysis

# Introduction

The supermarket sales analysis dataset, collected from multiple branches, contains detailed information about transactions, product lines, customer types, and the total revenue generated. This analysis aims to provide valuable insights into sales performance and customer behavior, helping to inform strategic decisions to enhance profitability and growth.



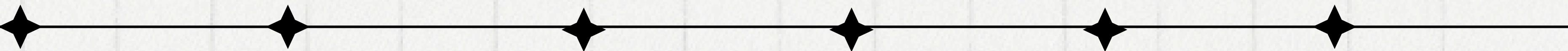
# Data Definition

The supermarket sales dataset comprises comprehensive information about sales transactions, containing 1000 rows and 17 columns, including:

Branches and cities.  
Cost of Goods Sold and revenue.  
Customer type (regular or new) and gender.  
Payment methods and product lines.  
Ratings and total transaction value.

	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q
1	Branch	City	Customer type	Gender	Product line	Unit price	Quantity	Tax %	Total	Date	Time	Payment	Cost of good sold	gross margin percentage	gross income	Rating
2	A	Yangon	Member	Female	Health and beauty	74.69	7	26.142	548.972	01/05/2019	13:08	Ewallet	522.83	4.761904762	26.1415	9.1
3	C	Naypyitaw	Normal	Female	Electronic accessories	15.28	5	3.82	80.22	03/08/2019	10:29	Cash	76.4	4.761904762	3.82	9.6
4	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.216	340.526	03/03/2019	13:23	Credit card	324.31	4.761904762	16.2155	7.4
5	A	Yangon	Member	Male	Health and beauty	58.22	8	23.288	489.048	1/27/2019	20:33	Ewallet	465.76	4.761904762	23.288	8.4
6	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.209	634.379	02/08/2019	10:37	Ewallet	604.17	4.761904762	30.2085	5.3
7	C	Naypyitaw	Normal	Male	Electronic accessories	85.39	7	29.887	627.617	3/25/2019	18:30	Ewallet	597.73	4.761904762	29.8865	4.1
8	A	Yangon	Member	Female	Electronic accessories	68.84	6	20.652	433.692	2/25/2019	14:36	Ewallet	413.04	4.761904762	20.652	5.8
9	C	Naypyitaw	Normal	Female	Home and lifestyle	73.56	10	36.78	772.38	2/24/2019	11:38	Ewallet	735.6	4.761904762	36.78	8
10	A	Yangon	Member	Female	Health and beauty	36.26	2	3.626	76.146	01/10/2019	17:15	Credit card	72.52	4.761904762	3.626	7.2
11	B	Mandalay	Member	Female	Food and beverages	54.84	3	8.226	172.746	2/20/2019	13:27	Credit card	164.52	4.761904762	8.226	5.9
12	B	Mandalay	Member	Female	Fashion accessories	14.48	4	2.896	60.816	02/06/2019	18:07	Ewallet	57.92	4.761904762	2.896	4.5
13	B	Mandalay	Member	Male	Electronic accessories	25.51	4	5.102	107.142	03/09/2019	17:03	Cash	102.04	4.761904762	5.102	6.8
14	A	Yangon	Normal	Female	Electronic accessories	46.95	5	11.738	246.488	02/12/2019	10:25	Ewallet	234.75	4.761904762	11.7375	7.1
15	A	Yangon	Normal	Male	Food and beverages	43.19	10	21.595	453.495	02/07/2019	16:48	Ewallet	431.9	4.761904762	21.595	8.2
16	A	Yangon	Normal	Female	Health and beauty	71.38	10	35.69	749.49	3/29/2019	19:21	Cash	713.8	4.761904762	35.69	5.7
17	B	Mandalay	Member	Female	Sports and travel	93.72	6	28.116	590.436	1/15/2019	16:19	Cash	562.32	4.761904762	28.116	4.5
18	A	Yangon	Member	Female	Health and beauty	68.93	7	24.126	506.636	03/11/2019	11:03	Credit card	482.51	4.761904762	24.1255	4.6
19	A	Yangon	Normal	Male	Sports and travel	72.61	6	21.783	457.443	01/01/2019	10:39	Credit card	435.66	4.761904762	21.783	6.9
20	A	Yangon	Normal	Male	Food and beverages	54.67	3	8.2005	172.211	1/21/2019	18:00	Credit card	164.01	4.761904762	8.2005	8.6
21	B	Mandalay	Normal	Female	Home and lifestyle	40.3	2	4.03	84.63	03/11/2019	15:30	Ewallet	80.6	4.761904762	4.03	4.4
22	C	Naypyitaw	Member	Male	Electronic accessories	86.04	5	21.51	451.71	2/25/2019	11:24	Ewallet	430.2	4.761904762	21.51	4.8
23	B	Mandalay	Normal	Male	Health and beauty	87.98	3	13.197	277.137	03/05/2019	10:40	Ewallet	263.94	4.761904762	13.197	5.1
24	B	Mandalay	Normal	Male	Home and lifestyle	33.2	2	3.32	69.72	3/15/2019	12:20	Credit card	66.4	4.761904762	3.32	4.4
25	A	Yangon	Normal	Male	Electronic accessories	34.56	5	8.64	181.44	2/17/2019	11:15	Ewallet	172.8	4.761904762	8.64	9.9
26	A	Yangon	Member	Male	Sports and travel	88.63	3	13.295	279.185	03/02/2019	17:36	Ewallet	265.89	4.761904762	13.2945	6
27	A	Yangon	Member	Female	Home and lifestyle	52.59	8	21.036	441.756	3/22/2019	19:20	Credit card	420.72	4.761904762	21.036	8.5
28	B	Mandalay	Normal	Male	Fashion accessories	33.52	1	1.676	35.196	02/08/2019	15:31	Cash	33.52	4.761904762	1.676	6.7
29	A	Yangon	Normal	Female	Fashion accessories	87.67	2	8.767	184.107	03/10/2019	12:17	Credit card	175.34	4.761904762	8.767	7.7
30	B	Mandalay	Normal	Female	Food and beverages	88.36	5	22.09	463.89	1/25/2019	19:48	Cash	441.8	4.761904762	22.09	9.6
31	A	Yangon	Normal	Male	Health and beauty	24.89	9	11.201	235.211	3/15/2019	15:36	Cash	224.01	4.761904762	11.2005	7.4
32	B	Mandalay	Normal	Male	Fashion accessories	94.13	5	23.533	494.183	2/25/2019	19:39	Credit card	470.65	4.761904762	23.5325	4.8
33	B	Mandalay	Member	Male	Sports and travel	78.07	9	35.132	737.762	1/28/2019	12:43	Cash	702.63	4.761904762	35.1315	4.5

# Analysis Questions



1

What is the total number of sales for each city and branch?

2

How do revenues differ by geographic locations and branches?

3

What are the highest ratings received by different cities, and what is the average 5% tax by city?

4

How do the costs of goods sold vary by product line and branch?

5

What is the total revenue by gender (Male/Female)?

6

What is the total of ratings for each branch, and how are the overall ratings distributed across different branches or cities?

# Supermarkets Sales Analysis

Branch

- A
- B
- C

**6.45K**

Total Revenue

**312.13**

Average of Cost of goods sold

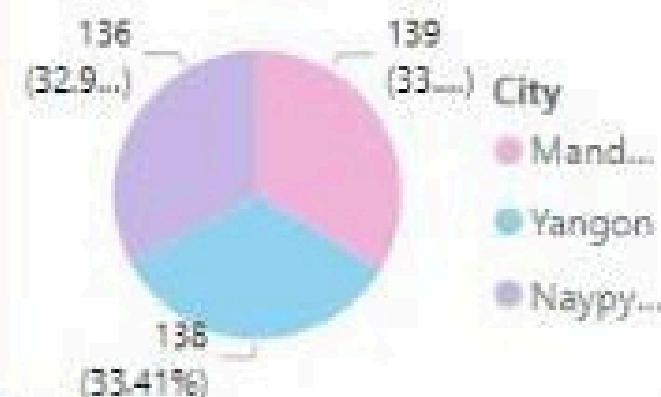
**2.90K**

Sum of Rating

**6.45K**

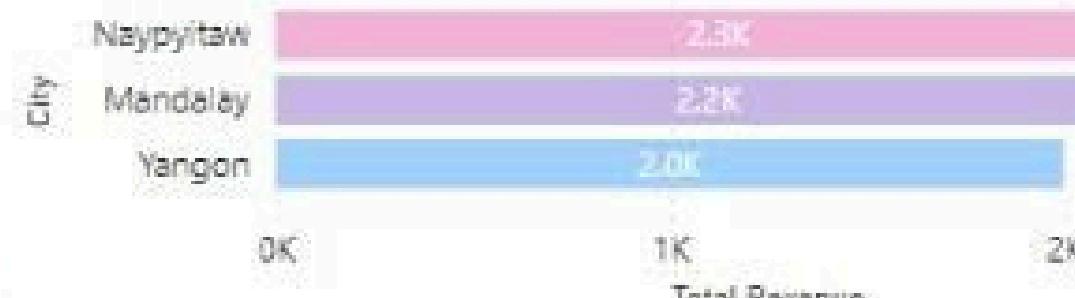
Sum of Tax 5%

Count of Quantity by City



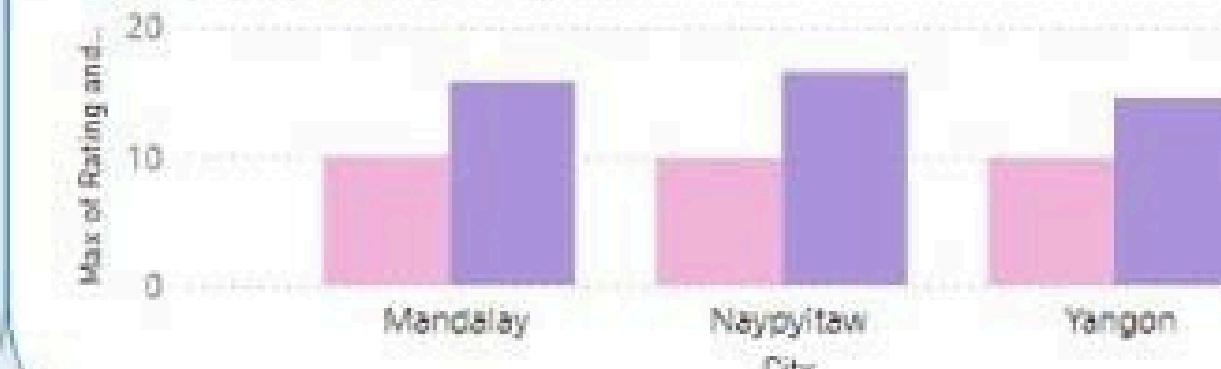
Total Revenue by City and Branch

Branch ● A ● B ● C

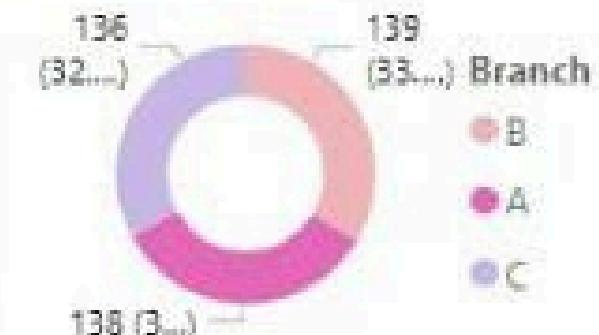


Max of Rating and Average of Tax 5% by City

● Max of Rating ● Average of Tax 5%



Count of Total by Branch



Average of Cost of goods sold by Product line and Branch

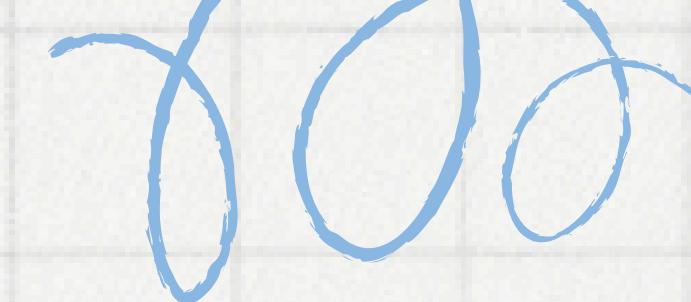
Branch ● A ● B ● C



Total Revenue by Gender

Gender





# Explanation of the Dashboard

1. Branches (A, B, C): Shows which branches are being analyzed and their performance.
2. Total Sales by City and Branch: Identifies the most active locations.
3. Total Revenue by City and Branch: Highlights financial performance geographically.
4. Max Ratings and Average Tax by City: Reveals customer satisfaction trends.
5. Average Cost of Goods Sold by Product Line and Branch: Insights into profitability.
6. Total Revenue by Gender: Compares purchasing behavior between genders.
7. Sum of Ratings: Evaluates customer feedback across branches.

# Conclusion

The supermarket sales analysis provides key insights into sales performance and customer behavior across different branches. Through the dashboard, we identified the most successful branches and cities, as well as the impact of factors like gender, product lines, and customer ratings. These findings will help in making informed decisions to improve operations and increase revenue in the future.



# Thank you