Retail Performance Optimization

A Data-Driven Approach to Understanding Sales, Profitability, and Growth in Myanmar

Table of Content

Business Problem Statement

In a competitive retail environment, the business is facing challenges in understanding customer preferences, optimizing operational workflows, and identifying underperforming products and branches. Sales trends vary significantly across locations, customer segments, and product categories, making it difficult for management to make data-driven decisions.

The company needs a robust analytical approach to:

- **Identify market trends** and customer purchasing behavior to enhance targeted marketing.
- **Uncover inefficiencies** in inventory and supply chain operations through sales pattern analysis.
- **Evaluate sales performance** across different branches and product lines to focus efforts on high-value areas.
- **Understand customer satisfaction levels** based on ratings and feedback to improve service quality and retention.

To address these issues, SQL-based data analysis is used to generate actionable insights from transactional sales data.

Dataset Overview

The dataset contains transactional sales data with the following key attributes:

Invoice ID: Unique identifier for each transaction.
Branch: Store branch where the transaction took place (A, C).
City: Location of the store (Yangon, Naypyitaw).
Customer Type: Member or Normal customer.
Gender: Male or Female.
Product Line: Category of the product purchased
Unit Price: Price per unit of the product.
Quantity: Number of units purchased.
Tax 5%: Tax applied to the total price.
Total: Total amount paid, including tax.
Date & Time: Timestamp of the transaction.
Payment Method: Mode of payment
COGS: Cost of Goods Sold.
Gross Margin Percentage: Percentage of revenue exceeding COGS.
Gross Income: Earnings from the transaction before deductions.
Rating: Customer satisfaction rating.

Ad Hoc Analysis Using SQL

- Conducted on-demand queries to answer specific business questions, such as identifying top-selling products by month or analyzing payment method preferences.
- **Enabled quick, data-driven decisions** without requiring changes to the overall data model or report structure.

```
1 •  SELECT * FROM retail_market_analysis.retail_sales_transactions;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content:

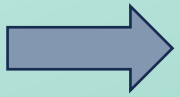
Invoice ID	Branch	City	Customer type	Gender	Product line	Unit price	Quantity	Tax 5%	Total	Date	Time	Payment	cogs	gross margin percentage	gross income	Rating
750-67-8428	A	Yangon	Member	Female	Health and beauty	74.69	7	26.1415	548.9715	01-05-2019	13:08	Ewallet	522.83	4.761904762	26.1415	9.1
226-31-3081	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
631-41-3108	A	Yangon	Normal	Male	Home and lifestyle	46.33	7	16.2155	340.5255	03-03-2019	13:23	Credit card	324.31	4.761904762	16.2155	7.4
123-19-1176	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
373-73-7910	A	Yangon	Normal	Male	Sports and travel	86.31	7	30.2085	634.3785	02-08-2019	10:37	Ewallet	604.17	4.761904762	30.2085	5.3
699-14-3026	C	Naypyitaw	Normal	Male	Electronic accessories	85.39	7	29.8865	627.6165	3/25/2019	18:30	Ewallet	597.73	4.761904762	29.8865	4.1
355-53-5943	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
315-22-5665	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
665-32-9167	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
692-92-5582	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
351-62-0822	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
529-56-3974	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
365-64-0515	A	Yangon	Normal	Female	Electronic accessories	46.95	5	11.7375	246.4875	02-12-2019	10:25	Ewallet	234.75	4.761904762	11.7375	7.1
252-56-2699	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
829-34-3910	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
299-46-1805	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
656-95-9349	A	Yangon	Member	Female	Health and beauty	68.93	7	24.1255	506.6355	03-11-2019	11:03	Credit card	482.51	4.761904762	24.1255	4.6
765-26-6951	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
329-62-1586	A	Yangon	Normal	Male	Food and beverages	54.67	3	8.2005	172.2105	1/21/2019	18:00	Credit card	164.01	4.761904762	8.2005	8.6
319-50-3348	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
300-71-4605	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
371-85-5789	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

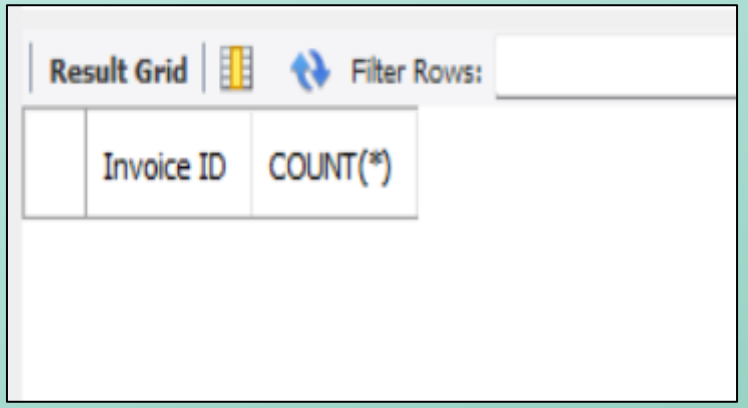
Data Cleaning Using SQL

Data cleaning is a crucial step to ensure the dataset is accurate, consistent, and ready for analysis. SQL was used to detect and remove duplicates, handle missing values, correct data types, and convert date/time fields into usable formats.

Checking Duplicate Records

```sql
SELECT `Invoice ID`, COUNT(*)
FROM  retail_market_analysis.retail_sales_transactions
GROUP BY `Invoice ID`
HAVING COUNT(*) > 1;
```





Correct Date & Time Format

```sql
ALTER TABLE retail_market_analysis.retail_sales_transactions
ADD COLUMN Transaction_Date DATE ;

UPDATE retail_market_analysis.retail_sales_transactions
SET Transaction_Date =
CASE
    WHEN Date LIKE '%/%/%' THEN STR_TO_DATE(Date, '%m/%d/%Y') -- handles 1/27/2019
    WHEN Date LIKE '%-%-%' THEN STR_TO_DATE(Date, '%d-%m-%Y') -- handles 02-10-2019
    ELSE NULL
END;
```

```sql
ALTER TABLE retail_market_analysis.retail_sales_transactions
ADD COLUMN Transaction_time time;

update retail_market_analysis.retail_sales_transactions
SET Transaction_time = STR_TO_DATE(Time, '%H:%i');
```

Exploratory Data Analysis (EDA) Using SQL Queries

1. Customer Segmentation:

Understand purchasing behavior across different customer types.

```
select `Customer type`,
Count(`Invoice ID`) as Transcation_Count
from retail_market_analysis.retail_sales_transactions
group by  `Customer type`;
```

Result Grid | Filter Rows:

Customer type	Transcation_Count
Member	501
Normal	499

Analyzed average spending per customer type to reveal high-value segments.

```
select `Customer type`,
Round(avg(`Invoice ID`),2) as Avg_Spending
from retail_market_analysis.retail_sales_transactions
group by  `Customer type`;
```

Customer type	Avg_Spending
Member	488.53
Normal	521.21

2. Sales Trend Analysis

Assessed sales performance over time to track business growth

```
select Date(Transaction_Date) as Sales_Date,
Round(sum(Total)) as Total_sales
from  retail_market_analysis.retail_sales_transactions
group by
Transaction_Date
Order BY  Sales_Date;
```

Result Grid | Filter Rows:

Sales_Date	Total_sales
2019-01-01	4745
2019-01-02	2445
2019-01-03	2634
2019-01-13	2451
2019-01-14	3967
2019-01-15	5944
2019-01-16	4289
2019-01-17	3143
2019-01-18	2780
2019-01-19	4915
2019-01-20	3655
2019-01-21	2392
2019-01-22	1705
2019-01-23	5994
2019-01-24	5402
2019-01-25	4700
2019-01-26	4458
2019-01-27	4636
2019-01-28	5000
2019-01-29	3517
2019-01-30	2558
2019-01-31	5232
2019-02-01	1946
2019-02-02	4141

Result Grid | Filter Rows:

Sales_Date	Total_sales
2019-02-03	6560
2019-02-13	934
2019-02-14	2454
2019-02-15	6831
2019-02-16	2504
2019-02-17	5300
2019-02-18	1496
2019-02-19	4228
2019-02-20	2706
2019-02-21	1394
2019-02-22	2442
2019-02-23	2340
2019-02-24	2722
2019-02-25	4807
2019-02-26	2408
2019-02-27	5859
2019-02-28	2097
2019-03-01	2078
2019-03-02	5468
2019-03-03	4853
2019-03-13	2064
2019-03-14	7215
2019-03-15	2942
2019-03-16	3154

Result Grid | Filter Rows:

Sales_Date	Total_sales
2019-03-17	1976
2019-03-18	1293
2019-03-19	5740
2019-03-20	5458
2019-03-21	1878
2019-03-22	3179
2019-03-23	4095
2019-03-24	3477
2019-03-25	2273
2019-03-26	1963
2019-03-27	2903
2019-03-28	2229
2019-03-29	4023
2019-03-30	4487
2019-04-01	1624
2019-04-02	2439
2019-04-03	3894
2019-05-01	3537
2019-05-02	3031
2019-05-03	6231
2019-06-01	3614

Result Grid | Filter Rows:

Sales_Date	Total_sales
2019-06-01	3614
2019-06-02	2905
2019-06-03	3093
2019-07-01	2834
2019-07-02	7228
2019-07-03	1438
2019-08-01	5294
2019-08-02	5085
2019-08-03	3125
2019-09-01	3021
2019-09-02	3272
2019-09-03	7474
2019-10-01	3561
2019-10-02	3141
2019-10-03	3163
2019-11-01	2115
2019-11-02	4542
2019-11-03	2961
2019-12-01	5185
2019-12-02	2999
2019-12-03	3678

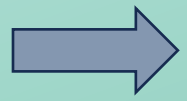
Highlighted peak sales days and active time slots for operational planning.

```sql
select (Transaction_Date),
Round(sum(Total)) as Total_sales
from retail_market_analysis.retail_sales_transactions
group by Transaction_Date
order by Total_sales Desc
Limit 10;
```

Result Grid | Filter Rows:

Transaction_Date	Total_sales
2019-09-03	7474
2019-07-02	7228
2019-03-14	7215
2019-02-15	6831
2019-02-03	6560
2019-05-03	6231
2019-01-23	5994
2019-01-15	5944
2019-02-27	5859
2019-03-19	5740

```sql
select
Transaction_Date,
 hour(Transaction_time),
Round(sum(Total)) as Total_sales
from retail_market_analysis.retail_sales_transactions
group by  hour(Transaction_time),Transaction_Date
```



Result Grid | Filter Rows: | Export:

Transaction_Date	hour(Transaction_time)	Total_sales
2019-05-01	13	549
2019-08-03	10	1032
2019-03-03	13	866
2019-01-27	20	893
2019-08-02	10	933
2019-03-25	18	819
2019-02-25	14	791
2019-02-24	11	772
2019-10-01	17	553
2019-02-20	13	445

3. Product Line Performance

Ranked product lines based on total revenue to identify top-performing categories.

```
select `Product line`,
Round(Sum(Total),2) as Total_Revenue,
Rank() over (Order by sum(Total) Desc) as Revenue_Rank
From  retail_market_analysis.retail_sales_transactions
Group by `product line`
order by
Revenue_Rank;
```

Product line	Total_Revenue	Revenue_Rank
Food and beverages	56144.84	1
Sports and travel	55122.83	2
Electronic accessories	54337.53	3
Fashion accessories	54305.9	4
Home and lifestyle	53861.91	5
Health and beauty	49193.74	6

Calculated average quantity sold to evaluate product popularity.

```
select `Product line`,
Round(avg(Quantity),0) Avg_quantity
from  retail_market_analysis.retail_sales_transactions
Group by `Product line`
order by
Avg_quantity;
```

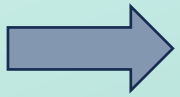
Result Grid Filter Rows:

Product line	Avg_quantity
Food and beverages	5
Fashion accessories	5
Health and beauty	6
Electronic accessories	6
Home and lifestyle	6
Sports and travel	6

4. Payment Method Insights

Determined most preferred payment methods by transaction count.

```
select Payment,
count(Total) as Total_Transcations_count
from retail_market_analysis.retail_sales_transactions
group by Payment
order by Total_Transcations_count
desc ;
```

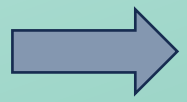


Result Grid | Filter Rows:

Payment	Total_Transcations_count
Ewallet	345
Cash	344
Credit card	311

Determined most preferred payment methods by transaction count.

```
select Payment,
Round(sum(Total),2) as Revenue
from retail_market_analysis.retail_sales_transactions
group by Payment
order by Revenue
desc ;
```

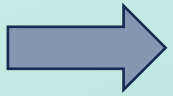


Result Grid | Filter Rows:

Payment	Revenue
Cash	112206.57
Ewallet	109993.11
Credit card	100767.07

Analyzed relationship between payment method and customer satisfaction ratings.

```sql
select Payment,
round(Avg(Rating),2) as Ratings
from retail_market_analysis.retail_sales_transactions
group by Payment
order by Ratings
desc ;
```



Result Grid | Filter Rows:

Payment	Ratings
Credit card	7
Cash	6.97
Ewallet	6.95

Performance Analysis Using SQL

1. Branch and City-Wise Sales Performance

Compared sales across different branches and cities to spot high-performing locations.

```sql
select Branch,
round(sum(Total),2) as Total_Revenue
from  retail_market_analysis.retail_sales_transactions
group by Branch
order by Total_Revenue;
```

Result Grid | Filter Rows:

Branch	Total_Revenue
B	106197.67
A	106200.37
C	110568.71

2. Customer Type Revenue Contribution

Evaluated revenue contribution from members vs. normal customers.

```sql
select `customer type`,
round(sum(Total),2) as Total_Revenue
from  retail_market_analysis.retail_sales_transactions
group by `customer type`
order by Total_Revenue;
```

Result Grid | Filter Rows:

customer type	Total_Revenue
Normal	158743.31
Member	164223.44

3. Product Line Profitability

Computed profit margins across product lines to identify most profitable categories.

```
SELECT
  `Product line`,
  ROUND(SUM(`Total` - (`Unit price` * `Quantity`)), 2) AS Total_Profit,
  ROUND(SUM(`Total`), 2) AS Total_Revenue,
  ROUND(SUM(`Total` - (`Unit price` * `Quantity`)) / SUM(`Total`) * 100, 2) AS Profit_Margin_Percent
FROM retail_market_analysis.retail_sales_transactions
GROUP BY `Product line`
ORDER BY Profit_Margin_Percent DESC;
```

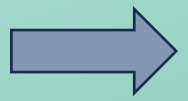
Result Grid | Filter Rows: | Export: | Wrap Cell Conte

Product line	Total_Profit	Total_Revenue	Profit_Margin_Percent
Health and beauty	2342.56	49193.74	4.76
Electronic accessories	2587.5	54337.53	4.76
Home and lifestyle	2564.85	53861.91	4.76
Sports and travel	2624.9	55122.83	4.76
Food and beverages	2673.56	56144.84	4.76
Fashion accessories	2585.99	54305.9	4.76

4. Gross Income & Margins Analysis

Calculated total gross income and analyzed gross margin percentage trends

```
SELECT
  ROUND(SUM(`gross income`), 2) AS Total_Gross_Income,
  ROUND(SUM(`cogs`), 2) AS Total_COGS,
  ROUND((SUM(`gross income`) / (SUM(`cogs`) + SUM(`gross income`))) * 100, 2)
  AS Total_Gross_Margin_Percentage
  FROM retail_market_analysis.retail_sales_transactions;
```



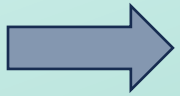
Result Grid | Filter Rows: | Export: | Wrap

Total_Gross_Income	Total_COGS	Total_Gross_Margin_Percentage
15379.37	307587.38	4.76

5. Customer Satisfaction Analysis

Assessed average customer ratings by product line and store branch.

```
select `Product line`,
Round(avg(Rating),2) as Avg_Rating
from retail_market_analysis.retail_sales_transactions
group by `Product line`
order by Avg_Rating Desc;
```



Product line	Avg_Rating
Food and beverages	7.11
Fashion accessories	7.03
Health and beauty	7
Electronic accessories	6.92
Sports and travel	6.92
Home and lifestyle	6.84

Identified factors influencing higher satisfaction to improve service quality.

```
select `Branch`,
Round(avg(Rating),2) as Avg_Rating
from retail_market_analysis.retail_sales_transactions
group by `Branch`
order by Avg_Rating Desc;
```

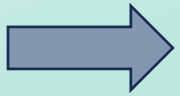
Result Grid | Filter Rov

Branch	Avg_Rating
C	7.07
A	7.03
B	6.82

5. Customer Satisfaction Analysis

Assessed average customer ratings by product line and store branch.

```
select `Product line`,
Round(avg(Rating),2) as Avg_Rating
from retail_market_analysis.retail_sales_transactions
group by `Product line`
order by Avg_Rating Desc;
```



Product line	Avg_Rating
Food and beverages	7.11
Fashion accessories	7.03
Health and beauty	7
Electronic accessories	6.92
Sports and travel	6.92
Home and lifestyle	6.84

Identified factors influencing higher satisfaction to improve service quality.

```
select `Branch`,
Round(avg(Rating),2) as Avg_Rating
from retail_market_analysis.retail_sales_transactions
group by `Branch`
order by Avg_Rating Desc;
```

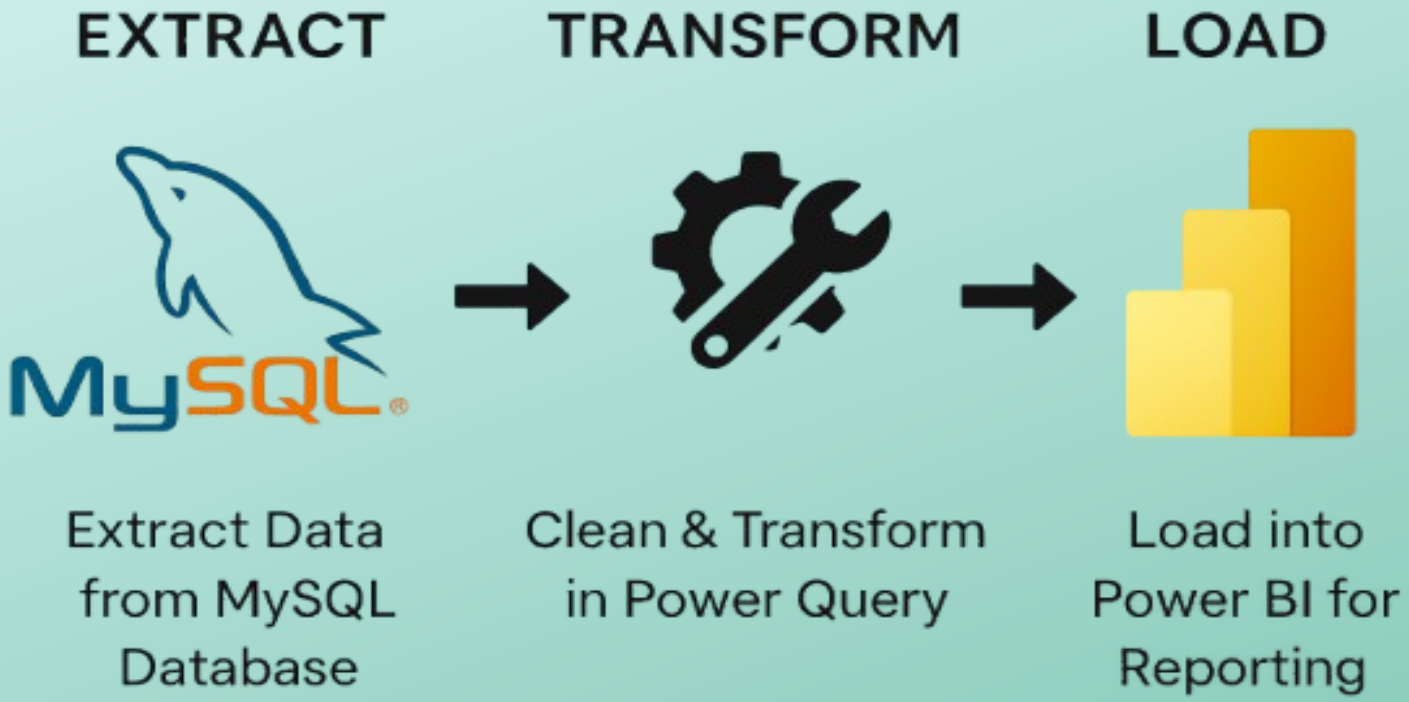
Result Grid | Filter Rov

Branch	Avg_Rating
C	7.07
A	7.03
B	6.82

Key Business Findings from Ad Hoc SQL Analysis

- ✓ Members generated more revenue (₹164.22K) than normal customers (₹158.74K).
- ✓ The highest sales were recorded in January (₹87K), followed by April (₹73K) and May (₹63K).
- ✓ Food & Beverages had the highest average customer rating at 7.1, followed by Fashion Accessories at 7.0.
- ✓ Ewallet and cash were the most preferred payment methods, each used in 34% of transactions, while credit cards were used in 31.2%.
- ✓ The Mandalay branch earned a gross income of ₹5.1K, slightly lower than Naypyitaw's ₹5.3K, despite similar sales volumes.
- ✓ Health & Beauty and Home & Lifestyle had the lowest customer ratings at 6.8 and 6.9, respectively.
- ✓ The overall gross margin across the business was just 4.76%, indicating tight profitability.

ETL Process – From MySQL to Power BI



Power BI Sales Dashboard

This presentation highlights insights from our Power BI dashboards, focusing on the following key areas:

- **Sales Dashboard** – Overview of overall sales performance and trends.
- **Profitability Dashboard** – Analysis of financial performance and profitability metrics.
- **Customer Dashboard** – Insights into customer behavior, demographics, and trends.

Retail Sales Performance Analysis

Home Page | Sale performance | Profitability | Customer Behavior

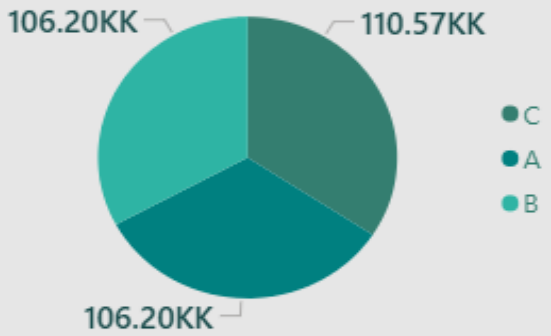
Retail Sales Performance

Home Page | Sale performance | Profitability | Customer...

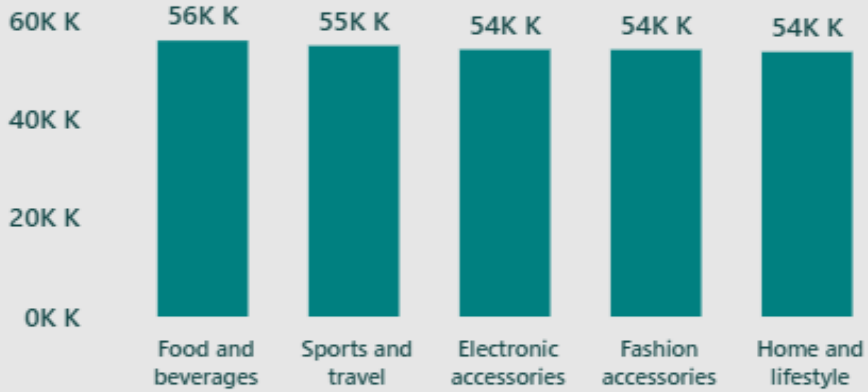
Total Sale	Total Quantity	COGS	Total Tax
322.97KK	5510	307.59...	15.38K

Product line: All
month: All
Branch: All
Gender: All

Sales by Branch

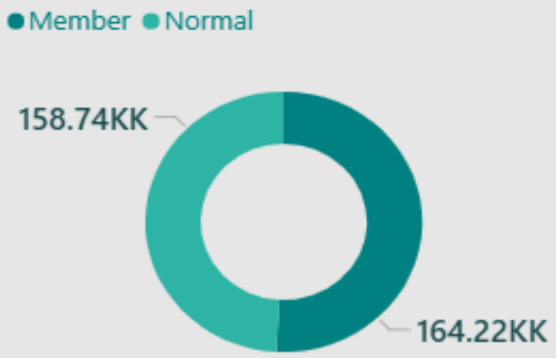


Sales by Product line

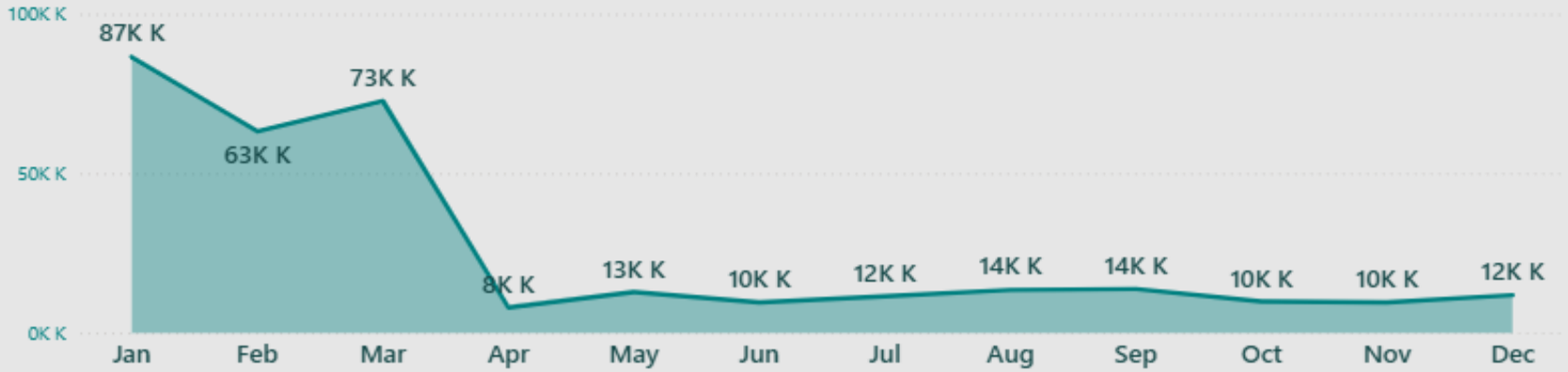


Sales by City

Customer wise Sales



Monthly Sales



Retail Sales Performance

COGS	Profit	Gross Margin%
307.59KK	15.38KK	4.76

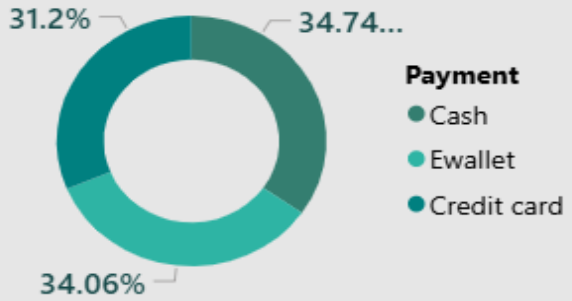
Branch: A, B

month: All

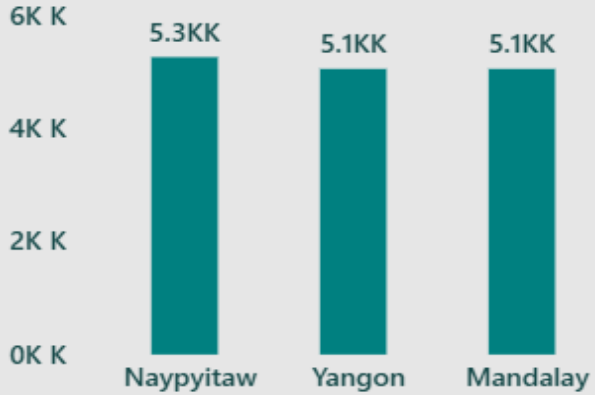
Product line: Electronic accessories

Gender: Female

Sales by Payment Method

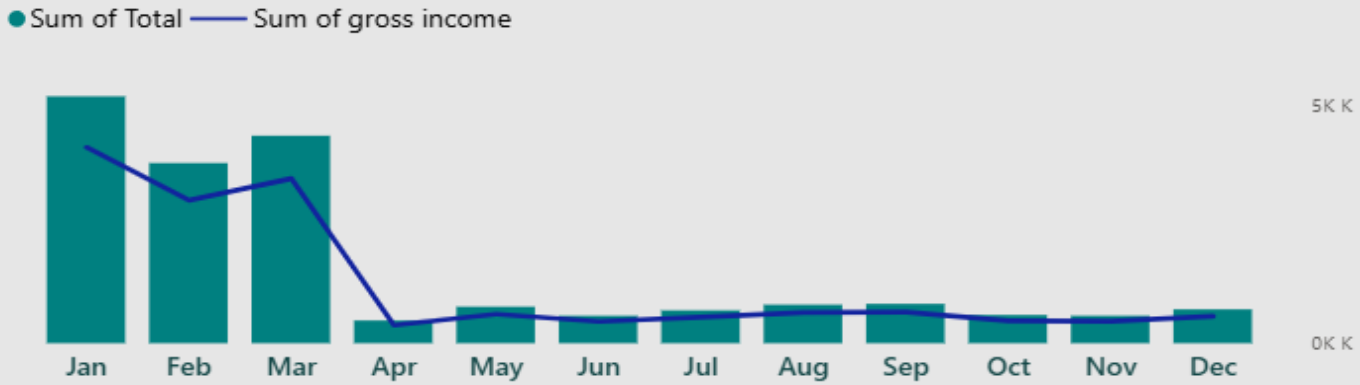


Gross income by City



Gross margin % by Product line

Sales Vs Profit (Monthly)



Avg Rating for Product Line

Retail Sales Performance

Home Page | Sale performance | Profitability | Customer Behaviour

Customers
1000

Total Tax
322.97KK

499 Male
501 Female

AVG Rating
0.00 — 6.97 — 10.00

Gender
Female

Customer Id
101-17-6199

Customer Behaviour Insights Across Branches

Invoice ID	Product line	Branch	City	Gender	Customer type	Quantity Sold	Revenue	COGS	gross income	gross margin
860-79-0874	Fashion accessories	C	Naypyitaw	Female	Member	10	1,042.65 K	993.00 K	49.65 K	4.76
687-47-8271	Fashion accessories	A	Yangon	Male	Normal	10	1,039.29 K	989.80 K	49.49 K	4.76
283-26-5248	Food and beverages	C	Naypyitaw	Female	Member	10	1,034.46 K	985.20 K	49.26 K	4.76
751-41-9720	Home and lifestyle	C	Naypyitaw	Male	Normal	10	1,023.75 K	975.00 K	48.75 K	4.76
303-96-2227	Home and lifestyle	B	Mandalay	Female	Normal	10	1,022.49 K	973.80 K	48.69 K	4.76
744-16-7898	Home and lifestyle	B	Mandalay	Female	Normal	10	1,022.39 K	973.70 K	48.69 K	4.76
271-88-8734	Fashion accessories	C	Naypyitaw	Female	Member	10	1,020.71 K	972.10 K	48.61 K	4.76
234-65-2137	Home and lifestyle	C	Naypyitaw	Male	Normal	10	1,003.59 K	955.80 K	47.79 K	4.76
554-42-2417	Sports and travel	C	Naypyitaw	Female	Normal	10	1,002.12 K	954.40 K	47.72 K	4.76
325-77-6186	Home and lifestyle	A	Yangon	Female	Member	10	951.83 K	906.50 K	45.33 K	4.76
280-17-4359	Health and beauty	C	Naypyitaw	Male	Member	10	950.25 K	905.00 K	45.25 K	4.76
219-22-9386	Sports and travel	B	Mandalay	Male	Member	9	944.62 K	899.64 K	44.98 K	4.76
702-83-5291	Fashion accessories	C	Naypyitaw	Male	Member	9	943.30 K	898.38 K	44.92 K	4.76
731-81-9469	Sports and travel	C	Naypyitaw	Female	Member	10	942.90 K	898.00 K	44.90 K	4.76
817-69-8206	Electronic accessories	B	Mandalay	Female	Normal	9	942.45 K	897.57 K	44.88 K	4.76
393-65-2792	Food and beverages	C	Naypyitaw	Male	Normal	10	939.54 K	894.80 K	44.74 K	4.76
751-69-0068	Sports and travel	C	Naypyitaw	Male	Normal	9	937.82 K	893.16 K	44.66 K	4.76
866-00-7614	Food and beverages	C	Naypyitaw	Male	Normal	10	936.60 K	892.00 K	44.60 K	4.76

Insights & Recommendations

Based on the identified business challenges, we performed a detailed analysis of sales, customer behavior, branch performance, and satisfaction metrics. The following insights and targeted recommendations are designed to directly address issues in customer understanding, operational efficiency, product and branch optimization, and service improvement.

1. Understanding Customer Preferences

Insights:

- ✓ Members generate slightly more revenue (164.22K) than normal customers (158.74K), indicating higher customer value.
- ✓ Gender split is equal (499 males, 501 females), suggesting no clear gender bias in purchasing.
- ✓ Food & Beverages and Fashion Accessories have the highest average ratings (7.1 and 7.0), reflecting strong customer preference.

Recommendations:

- Encourage normal customers to become members via loyalty rewards to boost revenue.
- Personalize offers based on customer purchase history rather than gender.
- Use highly rated categories as promotional flagships to attract more customers.

2. Optimizing Operational Workflows

Insights:

- ✓ January (87K), April (73K), and May (63K) are peak sales months; other months underperform significantly.
- ✓ Sales across branches A, B, and C are balanced (~106K–110K), but profit varies—Mandalay has lower gross income.
- ✓ Ewallet and cash usage are nearly equal (~34%), followed by credit cards (31.2%).

Recommendations:

- Launch targeted campaigns during low-sales months (e.g., July–December) to boost performance.
- Investigate Mandalay's operations for inefficiencies and replicate best practices from higher-profit branches.
- Promote Ewallet with cashback/discount offers to improve speed and digital traceability.

3. Identifying Underperforming Products & Branches

Insights:

- ✓ Health & Beauty and Home & Lifestyle receive lower customer ratings (6.8–6.9) and thinner margins.
- ✓ Mandalay shows ~5.1K gross income vs. Naypyitaw's ~5.3K with similar sales — suggesting higher costs.
- ✓ Gross margin across the business is only 4.76% — very tight for retail.

Recommendations:

- Review underperforming product lines for pricing, presentation, or quality improvements.
- Conduct a branch audit in Mandalay to reduce operational costs or improve customer service.
- Explore renegotiating supplier contracts or adjusting prices to increase margin.

4. Improving Customer Satisfaction & Retention

Insights:

- ✓ Product ratings range between 6.8 and 7.1 — moderate satisfaction across categories.
- ✓ Food & Beverages consistently score highest in ratings (7.1), indicating strong product and service quality.
- ✓ Payment method patterns may correlate with satisfaction—faster methods like Ewallet could enhance experience.

Recommendations:

- Introduce post-purchase surveys to capture feedback and improve lower-rated categories.
- Train staff based on practices in high-rated product categories like Food & Beverages.
- Improve and promote seamless digital payment experiences to raise satisfaction.

Thank You