

Customer Ratings Analysis + Insights

Cities	Yangon Mandalay Naypyitaw
Payment Methods	Cash Credit Card E-wallet
Product Lines	Health + Beauty Electronic Accessories Home + Lifestyle Sports + Travel Electronic Accessories Fashion Accessories

Data available at <https://www.kaggle.com/aungpyaeap/supermarket-sales>

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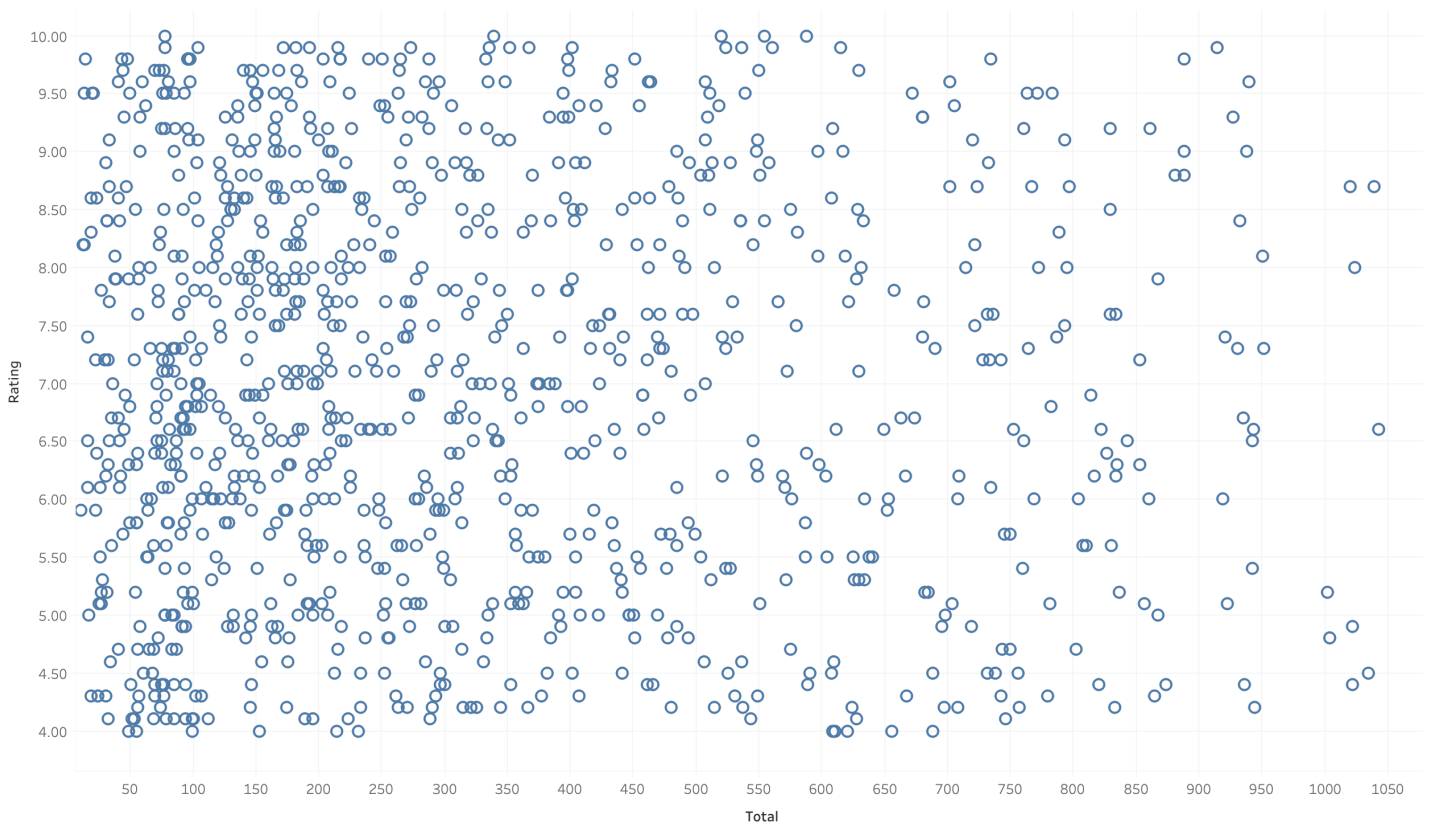
Exploratory Data Analysis

Distribution of Ratings

lowest = 4.0
highest = 10.0

25% = 5.5
75% = 8.5

average = 7.0



No correlation
between Total
Revenue and Rating.

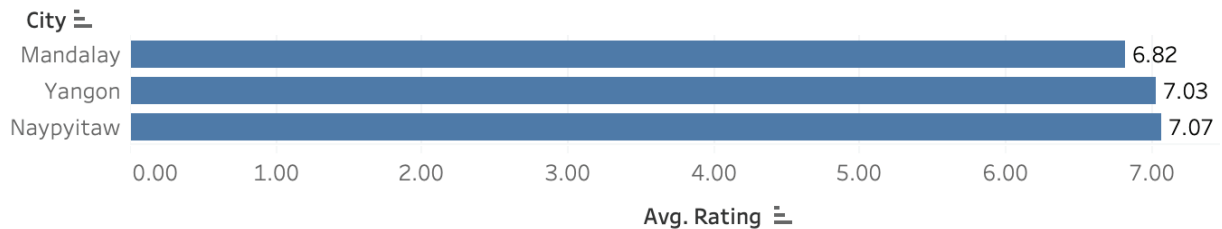
The experience of the customer is not
affected by the amount of money they
spend.

The service provided by the
employee is not affected by the
amount of money being spent by the
customer.

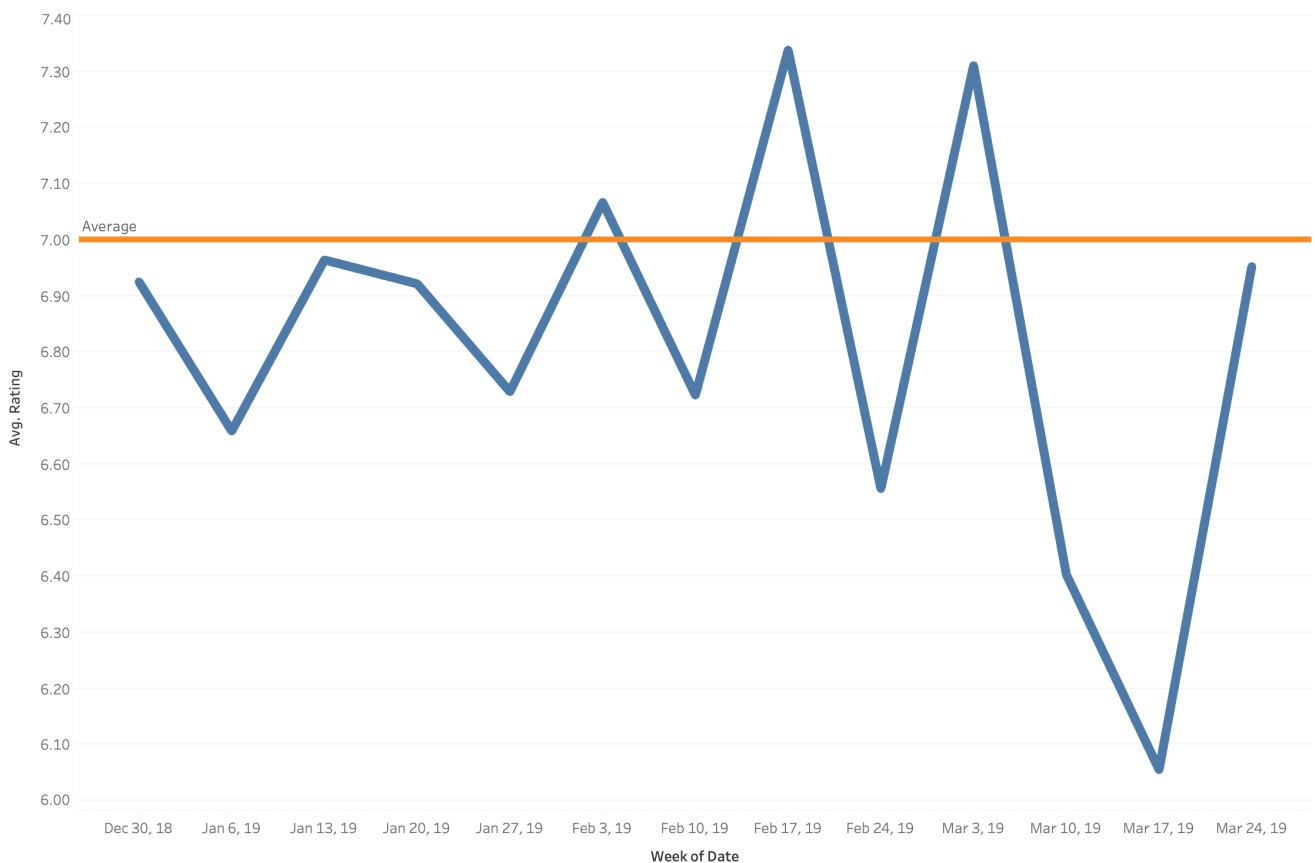
Mandalay
Yangon
Naypyitaw

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Analysing Cities



+ **Mandalay** has the lowest average rating of 6.82, which is 0.18 points below the total average



+ During the 13-week period, **Mandalay's** weekly average has been below the total average 10 times.

Product Lines + Gender

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Product line	City		
	Mandalay	Naypyitaw	Yangon
Electronic accessories	7.12	6.75	6.91
Fashion accessories	6.72	7.44	6.88
Food and beverages	6.99	7.08	7.25
Health and beauty	7.10	7.00	6.90
Home and lifestyle	6.52	7.06	6.93
Sports and travel	6.51	7.03	7.26

Lowest rating

**Home + Lifestyle,
Mandalay**

Second lowest rating

**Sports + Travel,
Mandalay**

Gender	City		
	Mandalay	Naypyitaw	Yangon
Female	6.88	7.16	6.84
Male	6.76	6.97	7.20

Lowest rating

**Male customers,
Mandalay**

Second lowest rating

**Female customers,
Yangon**

Digging Deeper

City	Payment	Product line					
		Electronic accessories	Fashion accessories	Food and beverages	Health and beauty	Home and lifestyle	Sports and travel
Mandalay	Cash	7.02	7.03	8.03	7.51	6.88	6.37
	Credit card	7.27	6.58	6.89	6.98	6.47	6.39
	Ewallet	7.12	6.53	6.66	6.85	6.34	6.83
Naypyitaw	Cash	6.99	7.06	7.03	7.22	6.76	6.62
	Credit card	7.29	7.56	7.37	7.14	6.80	7.49
	Ewallet	5.98	7.70	6.95	6.66	7.56	6.76
Yangon	Cash	6.72	6.84	7.57	6.96	6.04	7.69
	Credit card	7.08	6.42	7.48	6.37	7.08	7.27
	Ewallet	6.91	7.27	6.71	7.30	7.67	6.88

Lowest rating

Customers paying by **e-wallet** for **Electronic Accessories** at **Naypyitaw**.

Second lowest rating

Customers paying by **cash** for **Home + Lifestyle** at **Yangon**.

+ The **Home + Lifestyle** and **Sports + Travel** departments at **Mandalay** have below average ratings across **all payment methods**.

+ The **Electronic Accessories** department at **Mandalay** and **Fashion Accessories** department at **Naypyitaw** have above average ratings across **all payment methods**.

Cities + Gender + Product Lines

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Gender	Product line	City		
		Mandalay	Naypyitaw	Yangon
Female	Electronic accessories	7.10	6.95	6.31
	Fashion accessories	6.68	7.61	7.03
	Food and beverages	7.32	7.23	7.00
	Health and beauty	7.29	7.16	7.00
	Home and lifestyle	6.60	7.07	6.63
	Sports and travel	6.37	6.79	7.16
Male	Electronic accessories	7.13	6.54	7.44
	Fashion accessories	6.77	7.24	6.70
	Food and beverages	6.54	6.87	7.42
	Health and beauty	6.98	6.87	6.82
	Home and lifestyle	6.45	7.05	7.22
	Sports and travel	6.64	7.47	7.35

- + **Female** customers buying **Electronic Accessories** at **Yangon** have the lowest rating, 0.72 points below the city average.
- + Both male and female customers buying **Electronic Accessories** at **Naypyitaw** have below average ratings.
- + **Male** customers across all product lines (with the exception of **Electronic Accessories**) at **Mandalay** have below average ratings.
- + **Male** customers buying **Food + Beverages** have below average ratings across **all cities**.
- + **Female** customers buying **Food + Beverages** and **Health + Beauty** have above average ratings across **all cities**.

Comparative Insights

Gender	Payment	Product line	City		
			Mandalay	Naypyitaw	Yangon
Female	Cash	Electronic accessories	7.11	6.85	6.61
		Fashion accessories	7.15	7.85	6.83
		Food and beverages	9.32	7.18	7.58
		Health and beauty	7.87	7.83	6.96
		Home and lifestyle	7.40	7.10	6.05
		Sports and travel	6.43	6.81	8.15
	Credit card	Electronic accessories	6.80	7.77	6.03
		Fashion accessories	6.04	7.76	6.20
		Food and beverages	7.27	7.54	6.60
		Health and beauty	7.03	7.99	6.57
		Home and lifestyle	6.34	6.87	6.73
		Sports and travel	6.22	7.49	6.56
	Ewallet	Electronic accessories	7.44	6.30	6.43
		Fashion accessories	6.83	7.34	7.85
		Food and beverages	6.19	7.04	6.37
		Health and beauty	6.93	6.17	7.50
		Home and lifestyle	6.51	7.30	7.06
		Sports and travel	6.43	5.70	6.39
Male	Cash	Electronic accessories	6.92	7.18	6.81
		Fashion accessories	6.88	6.61	6.86
		Food and beverages	5.87	6.84	7.56
		Health and beauty	7.25	6.81	6.96
		Home and lifestyle	6.64	6.16	6.03
		Sports and travel	6.31	6.18	6.99
	Credit card	Electronic accessories	7.80	6.58	8.48
		Fashion accessories	7.33	7.17	6.68
		Food and beverages	6.21	7.02	7.75
		Health and beauty	6.95	6.65	6.23
		Home and lifestyle	6.65	6.70	7.49
		Sports and travel	6.57	7.50	7.82
	Ewallet	Electronic accessories	6.87	5.83	7.21
		Fashion accessories	6.26	8.28	6.64
		Food and beverages	7.09	6.84	6.90
		Health and beauty	6.80	7.28	7.18
		Home and lifestyle	6.22	7.77	8.27
		Sports and travel	7.23	8.46	7.25

Comparative Insights

Cash transactions for Food + Beverages at Mandalay

Male ratings = 5.87
Female ratings = 9.32

Difference = 3.45

E-wallet transactions for Sports + Travel at Naypyitaw

Female ratings = 5.70
Male ratings = 8.46

Difference = 2.76

Credit card transactions for Electronic Accessories at Yangon

Female ratings = 6.03
Male ratings = 8.48

Difference = 2.45

Cash transactions for Home + Lifestyle at Naypyitaw

Male ratings = 6.64
Female ratings = 7.40

Difference = 1.40

Comparative Insights

Cash transactions at Mandalay for Female Customers

+ Sports + Travel is the only department with below average ratings.

E-wallet transactions at Mandalay for Female Customers

+ Electronic Accessories is the only department with above average ratings.

Cash transactions at Mandalay for Male Customers

+ Health + Beauty is the only department with above average ratings.

Credit card transactions at Naypyitaw for Female Customers

+ Home + Lifestyle is the only department with below average ratings.

Cash transactions at Naypyitaw for Male Customers

+ Electronic Accessories is the only department with above average ratings.

Cash transactions at Yangon for Male Customers

+ Food + Beverages is the only department with above average ratings.