

Region of Analysis



Summary:

In this analysis we are looking to analyze restaurant data in South Asia near India and its neighboring regions. The main question we are trying to answer is: What restaurants are the most popular, generate the highest revenue and why?

A few metrics that will be focused are:

- 1. Cuisine
- 2. Average price
- 3. Location
- 4. Ratings
- 5. Income

Assumptions:  
Currency is INR - Indian Rupee  
1 INR = .012 USD  
1 USD = 83.19 INR

Data Edits:

Taking file 'restaurant' and creating file 'restaurant\_adj'

1. Combined Chinese,North Indian with North Indian,Chinese
2. Combined Chinese,Indian with Indian,Chinese
3. Combined Biryani,North Indian and North Indian,Biryani
4. Combined North Indian,South Indian and South Indian,North Indian
5. Combined Biryani,Indian with Indian,Biryani
6. Combined North Indian,Indian with Indian,North Indian
7. Combine South Indian,Chinese with Chinese,South Indian
8. Combine Chinese,Biryani with Biryani,Chinese

In file 'orders' create column 'Sales\_amount\_usd' - converting currency INR to USD  
in file 'menu' create column 'price\_usd' - converting currency INR to USD

(Blank) or '8:15 To 11:30' cuisine type will not be included in this analysis

Top Cuisine by Revenue

cuisine_adj	Sum of Sales_amount_usd
North Indian,Chinese	702,449.58
Indian	511,397.92
Indian,Chinese	474,289.52
North Indian	403,756.07
Chinese	326,896.12
South Indian	263,257.38
Biryani,North Indian	252,330.17
North Indian,South Indian	249,782.26
North Indian,Indian	243,075.40
Bakery	227,972.02
Pizzas	198,189.29
Biryani,Chinese	188,301.90
Beverages	173,753.51
Bakery,Desserts	173,119.80
Snacks	158,975.17
Total	11,558,761.32

Highest Revenue Restaurant

First name

Domino's Pizza

Sum of Sales\_amount\_usd

60.28K

Aggregate Total Revenue & Quantity

Sum of Sales\_amount\_usd

11.56M

Sum of sales\_qty

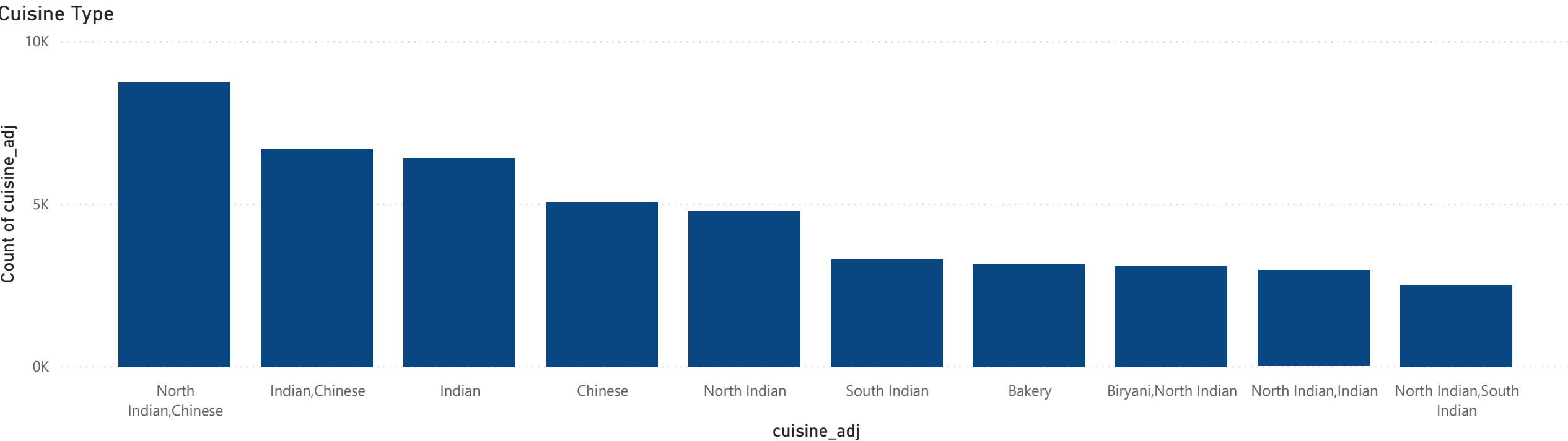
2M

cuisine_adj	Count of cuisine_adj
North Indian,Chinese	8759
Indian,Chinese	6682
Indian	6414
Chinese	5051
North Indian	4775
South Indian	3303
Bakery	3132
Biryani,North Indian	3102
North Indian,Indian	2953
North Indian,South Indian	2509
Total	46680

Analysis:

In this visual we are looking at the top 10 most common cuisine types in this region by finding the count of every restaurant based on the 'cuisine\_adj' data point.

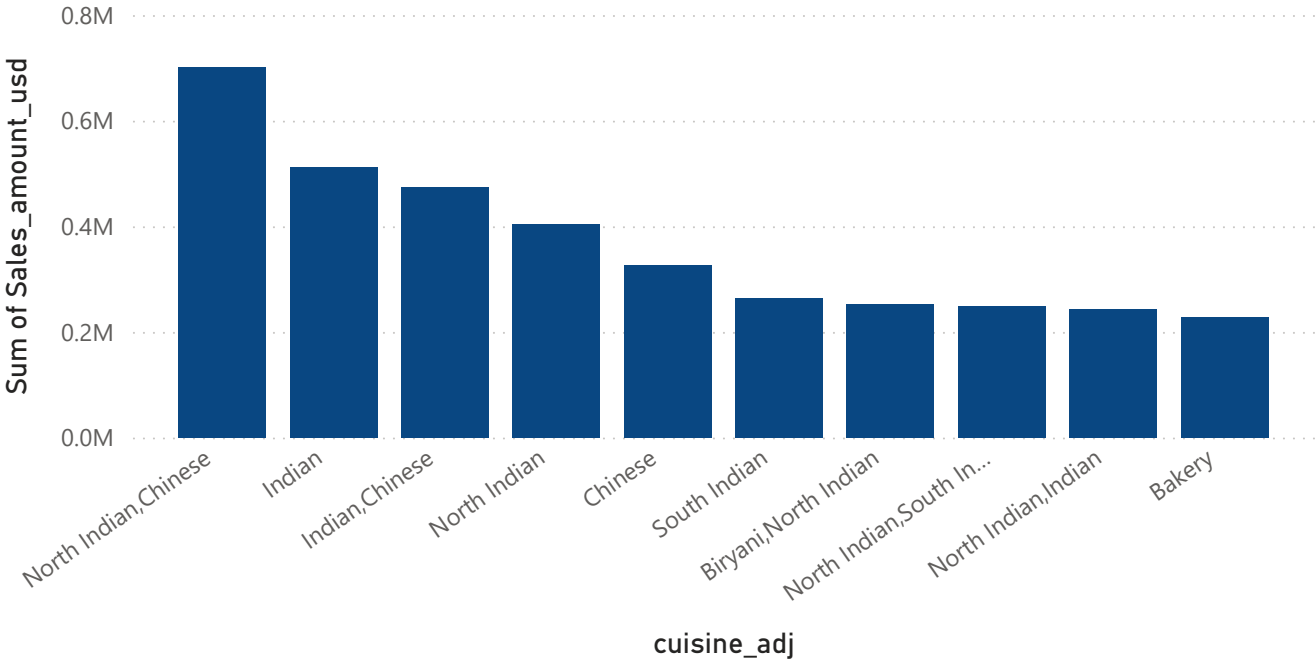
It is found the most common cuisine type is a variation of Chinese and Indian or a fusion of both. This analysis falls primarily in the region of India and a few of its neighboring countries so cuisine type being consistent with that is a probable conclusion.



name	Sum of Sales_amount_usd	Sum of sales_qty
Domino's Pizza	60,283.69	8349
Kouzina Kafe - The Food Court	23,500.90	1560
Sweet Truth - Cake and Desserts	23,434.57	2909
Pizza Hut	21,167.09	3792
Biryani House	20,291.71	2604
Huber & Holly	20,019.50	1200
Baskin Robbins	19,532.77	4389
KFC	19,235.50	3158
McCafe by McDonald's	18,502.19	1014
Janta Snacks	18,131.33	725
Total	244,099.25	29700

name	Sum of sales_qty	Sum of Sales_amount_usd
MAHARAJA GRILLS & ROLLS	14080	7,632.00
Iceberg Organic Icecreams	11526	9,487.78
CALLISTO	10667	5,411.45
New Hyderabadi Biryani Zone	10667	6,413.56
Vibezz Kitchen	8800	7,773.34
Domino's Pizza	8349	60,283.69
Nandanam Restaurant	8021	592.67
Wow! Momo	6762	7,764.13
Chalu Momos	6667	3,579.72
Nandhana Palace	6204	1,083.29
Chinese Wok (Wok Express)	5634	3,120.43
Zaika Biryani House	5479	2,549.05
Basaveshwar khanavali	5451	4,546.60
Kwality Walls Frozen Dessert and Ice Cream Shop	5422	16,420.20
Total	2429364	11,558,761.32

Sum of Sales\_amount\_usd by cuisine\_adj



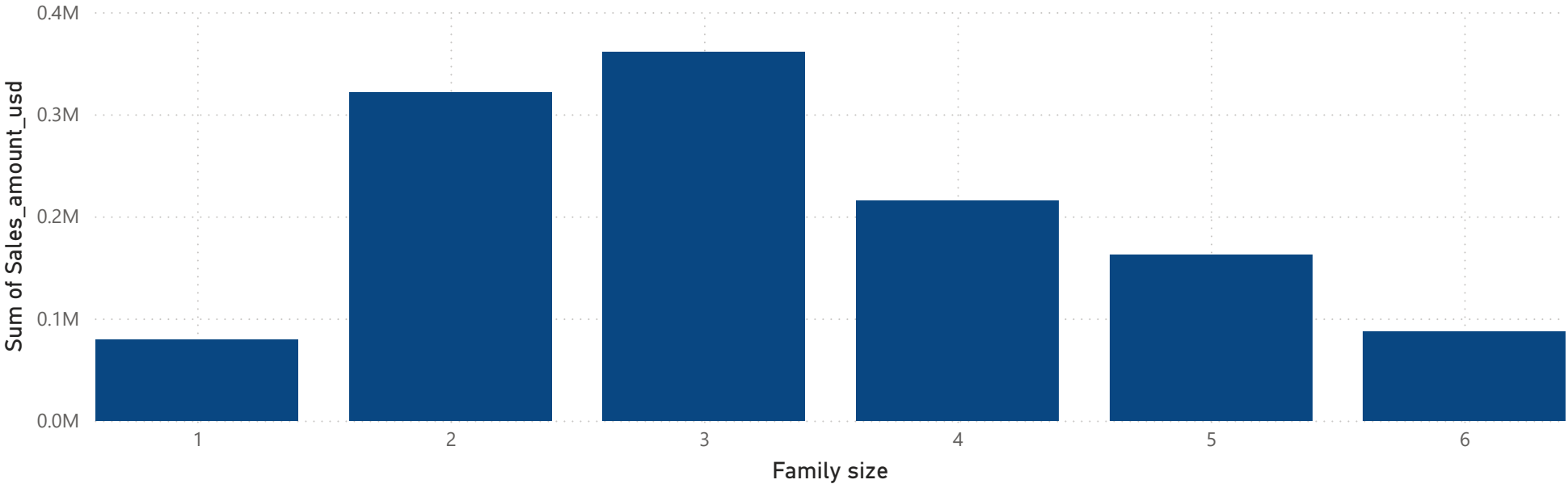
Analysis:

Based on the 2 tables shown on this page there is no indication that shows that if a restaurant were to sell more items it would have the highest gross revenue. It can be assumed that a restaurant that sells very low quantity would have lower revenue but on the contrary, just because a restaurant sells a very high number of items does not necessarily mean it has the highest revenue.

Domino's pizza has the highest sales while not having the highest quantity of items sold. While the items sold are the highest among the top 10 restaurants with the highest sales it is not for all restaurants.

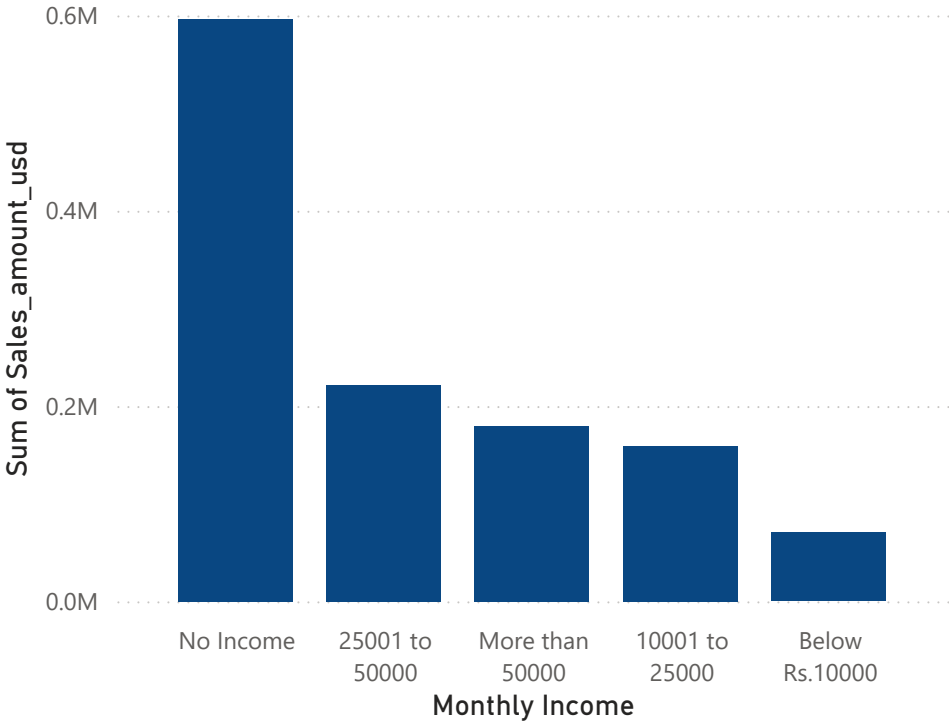
Sum of Sales_amount_usd	Family size
10,330,924.14	
79,600.39	1
321,866.36	2
361,561.34	3
215,288.96	4
162,327.73	5
87,192.38	6
<b>11,558,761.32</b>	

Sum of Sales\_amount\_usd by Family size



Sum of Sales_amount_usd	Monthly Income
10,330,924.14	
159,340.69	10001 to 25000
221,596.25	25001 to 50000
70,634.35	Below Rs.10000
179,684.00	More than 50000
596,581.88	No Income
<b>11,558,761.32</b>	

Sum of Sales\_amount\_usd by Monthly Income



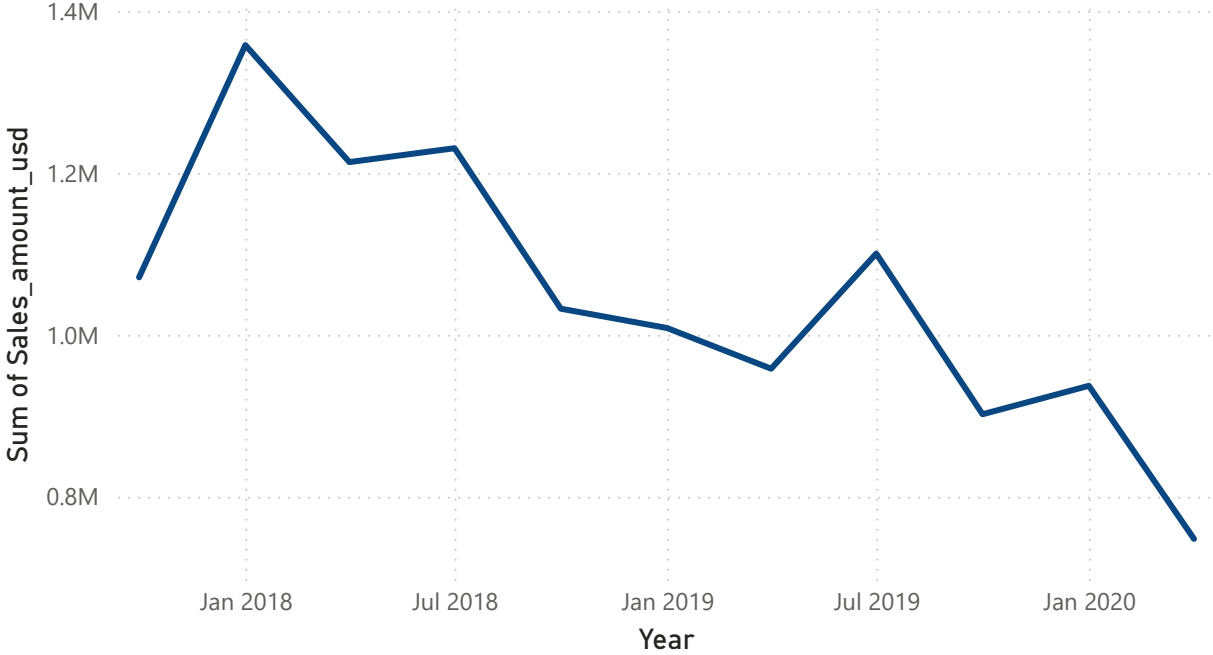
**Analysis:**

Before we go into analysis of sales revenue by family size and monthly income, the majority of revenue reported for restaurants is missing this data. Of the total revenue in this dataset: \$11,558,761.32, \$10,330,924.14 of it is not reported so about 10% of the data is reflected in this part of the analysis.

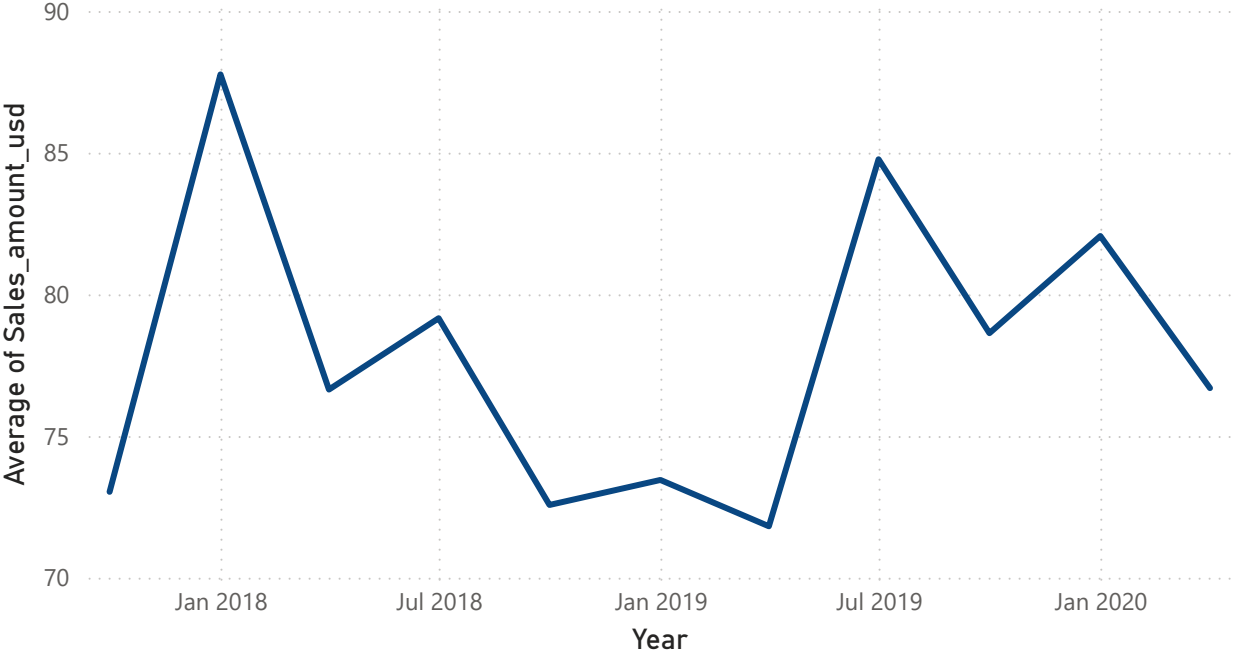
Sales by family size:  
The distribution of sales by family size is a bell curve shaped where 3 members in a family are responsible for the most spending while 1 and 6 members account for the least amount of spending.

Sales by monthly income:  
By far the highest accounted for revenue from income is the "No Income" category and 25001-50000 INR in second.

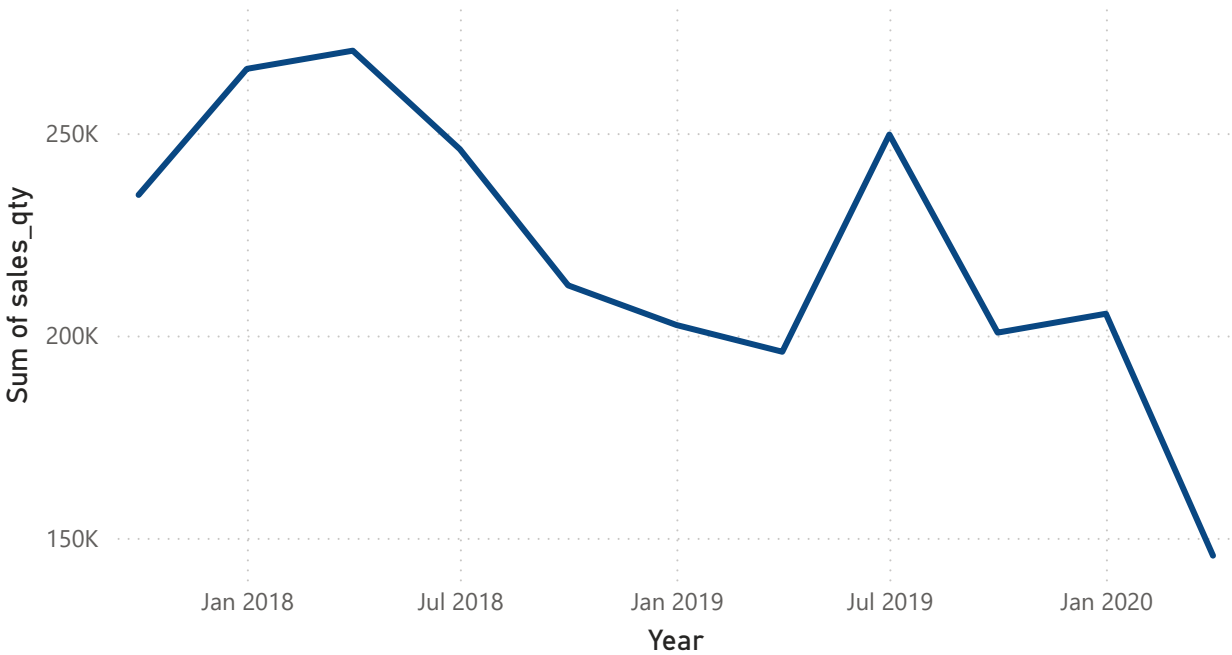
Sum of Sales\_amount\_usd by Year and Quarter



Average of Sales\_amount\_usd by Year and Quarter



Sum of sales\_qty by Year and Quarter



**Analysis:**

In this analysis we are looking to find if there are any cyclical trends that could raise red flags or draw conclusions from within the data.

The Average sales amount from 2018 to 2019 went down ~\$14 but returned back to about its peak at the end of 2019 into 2020.

The Sum of sales and quantity was on a constant decline since the beginning in 2018 to 2020. There is insufficient information here to say what the reason for this is at this time.

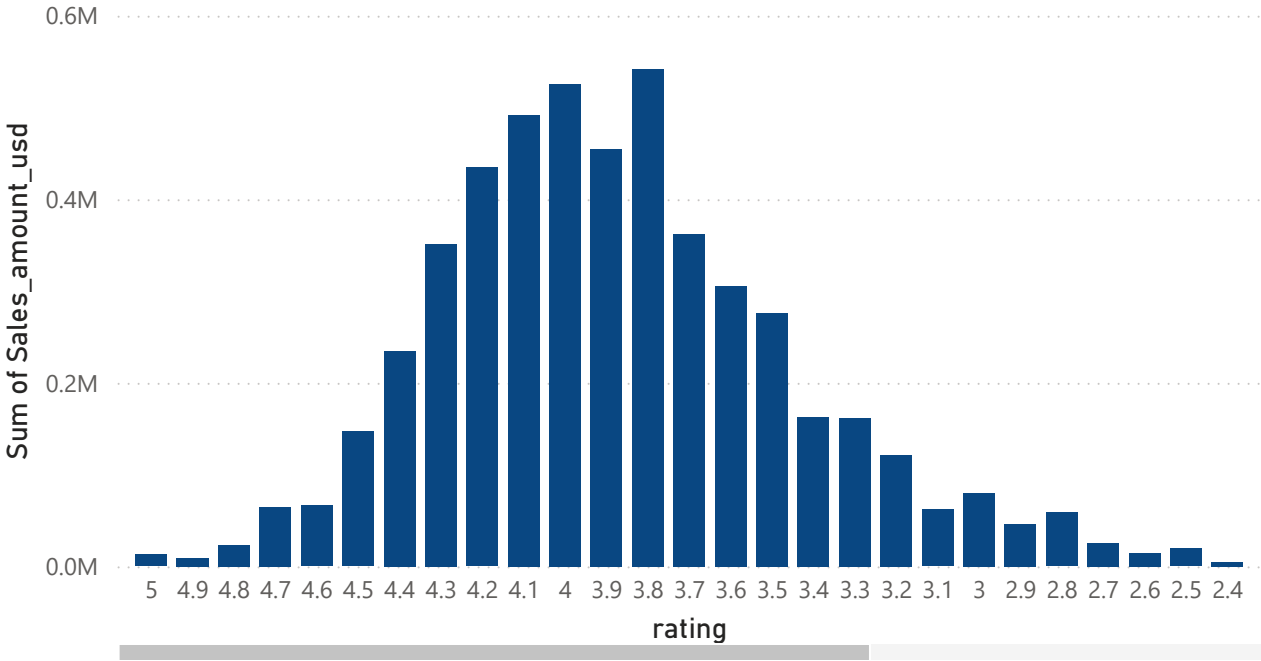
rating	Sum of Sales_amount_usd	name	cuis	rating	Count of rating
3.8	20,841.32	Domino's Pizza	Pizz	5	209
3.5	17,729.50	Happy Brew Cafe	Pizz	4.9	174
3.7	16,059.17	Jaysika DDN Fast Food	Cor	4.8	338
4.5	15,406.50	Huber & Holly	Pizz	4.7	648
4.7	14,737.78	Blue Tokai Coffee Roasters	Bev	4.6	1334
2.8	13,076.22	SRI LAKSHMI BAR AND RESTAURANT	Noi	4.5	1778
3.6	12,864.00	Biryani House	Biry	4.4	3148
4.4	12,388.28	Domino's Pizza	Pizz	4.3	5011
3.6	11,939.45	REDDY VISHNU FAST FOODS	Noi	4.2	5821
4.0	11,930.89	Mirch Masala	Noi	4.1	6296
4.3	11,641.56	Jayhind Sweets	Swe	4	6532
4.1	10,547.22	Manju Mamta Restaurant	Sou	3.9	5435
3.8	10,323.67	Moti Mahal Delux -Tandoori Trail	Noi	3.8	5736
4.0	10,323.67	North indian fast food	Noi	3.7	4252
Total	5,105,555.42			Total	61437

Analysis:

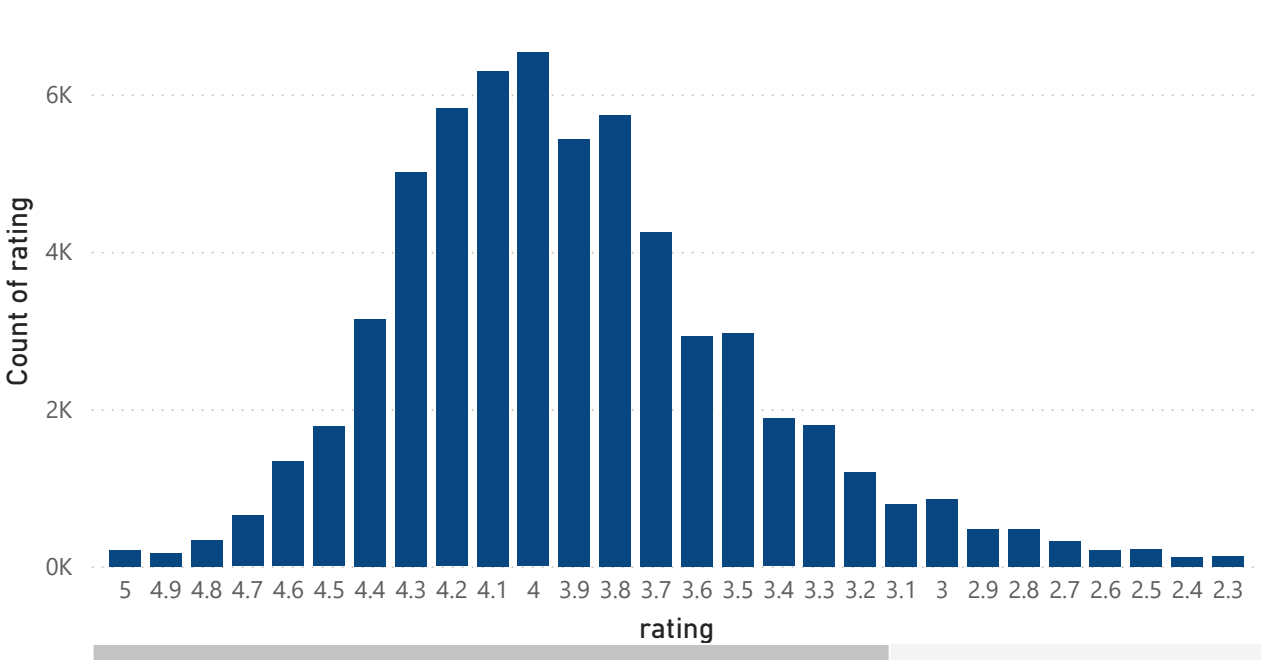
It can be seen that the revenue and number of reviews/ratings are in the shape of a bell curve with the upper bound at 5 and lower bound at about 2.5. The highest revenue and number of ratings are at or around 4 out of 5. There could be a few reasons for this which include:

- 1. The busier the restaurant the more reviews so a mix of all types of reviews have averaged to 4 out of 5 stars. A 4 star overall review does not mean they sell less than a 5 star restaurant
- 2. While the above is the case a restaurant with many low ratings (3.6 and lower) indicate if there are consistent low reviews there is correlation to lower revenue.

Sum of Sales\_amount\_usd by rating



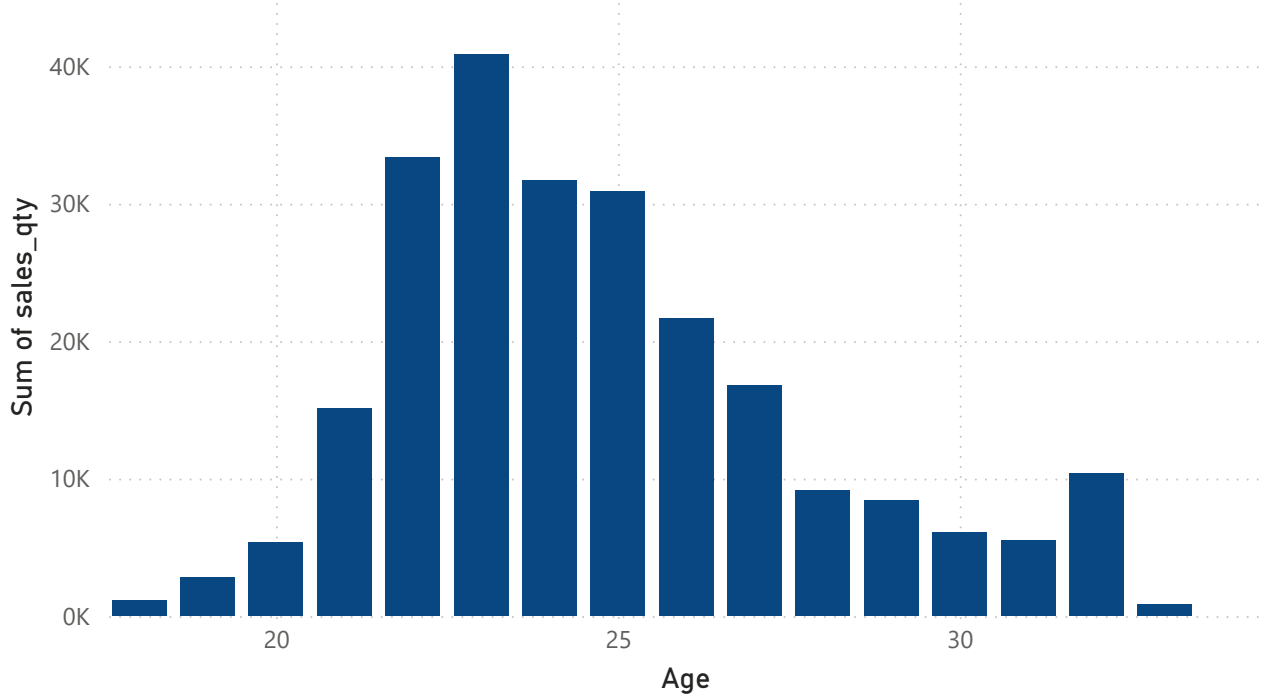
Count of rating by rating



Age	Sum of sales_qty
18	1107
19	2821
20	5382
21	15122
22	33322
23	40835
24	31689
25	30895
26	21664
27	16746
28	9163
29	8424
30	6082
31	5515
32	10350
33	887
Total	239924

Age	Sum of Sales_amount_usd
18	2,535.22
19	21,819.92
20	27,678.30
21	57,471.72
22	199,475.38
23	222,627.49
24	147,209.32
25	171,587.24
26	118,667.96
27	56,057.95
28	42,430.69
29	48,278.58
30	33,955.16
Total	1,227,837.18

Sum of sales\_qty by Age



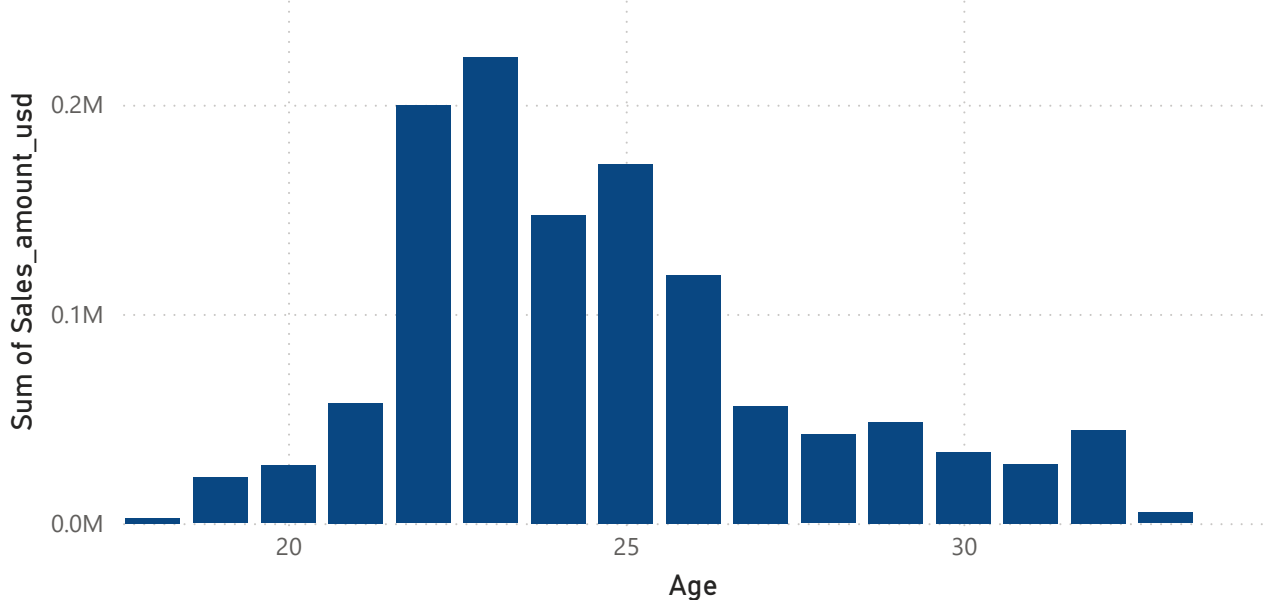
**Analysis:**

This part of the analysis is based off about 10% of the dataset

Here it can be seen that the highest sales based on age is going to be early to mid 20s and tapers off as the age of the consumer goes to 30 and above.

Age 23 has the highest quantity sold and revenue generated.

Sum of Sales\_amount\_usd by Age



Average of price_usd	cuisine_adj	Sum of Sales_amount_usd
1.68	North Indian,Chinese	702,449.58
1.66	Indian	511,397.92
1.67	Indian,Chinese	474,289.52
1.65	North Indian	403,756.07
1.69	Chinese	326,896.12
1.66	South Indian	263,257.38
1.62	Biryani,North Indian	252,330.17
1.62	North Indian,South Indian	249,782.26
1.66	North Indian,Indian	243,075.40
1.66	Bakery	227,972.02
1.72	Pizzas	198,189.29
1.64	Biryani,Chinese	188,301.90
1.68	Beverages	173,753.51
1.72	Bakery,Desserts	173,119.80
1.64	Snacks	158,975.17
<b>1.68</b>		<b>11,558,761.32</b>

Average of price	Average of price_usd	name	Sum of Sales_amount_usd
147.90	1.77	Domino's Pizza	60,283.69
151.51	1.82	Kouzina Kafe - The Food Court	23,500.90
142.05	1.70	Sweet Truth - Cake and Desserts	23,434.57
137.48	1.65	Pizza Hut	21,167.09
136.70	1.64	Biryani House	20,291.71
197.38	2.37	Huber & Holly	20,019.50
144.31	1.73	Baskin Robbins	19,532.77
141.46	1.70	KFC	19,235.50
127.62	1.53	McCafe by McDonald's	18,502.19
88.00	1.06	Janta Snacks	18,131.33
120.00	1.44	Happy Brew Cafe	17,729.50
143.02	1.72	Subway	17,705.39
129.97	1.56	IBACO	16,741.02
<b>139.87</b>	<b>1.68</b>		<b>11,558,761.32</b>

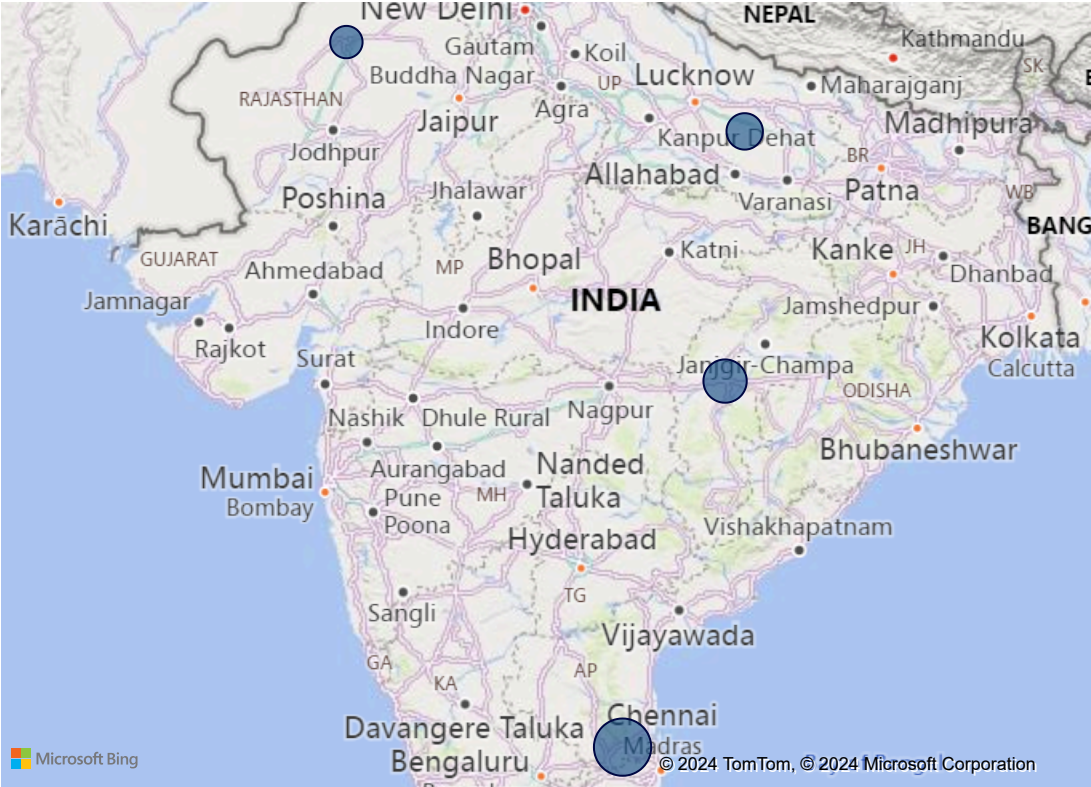
### Analysis:

This dataset is showing the average consumer is looking for food that is affordable. The average price in this dataset is \$1.68 per item with North Indian, Chinese having that average which generated the highest revenue.

Domino's Pizza being the leader for highest revenue has an average price very close at \$1.77. The characteristics of these restaurants include convenience and high yield per dollar.



Sum of Sales\_amount\_usd by city



Analysis:

In this analysis we are looking at the locations where most revenue was generated. This is a filtered dataset showing the top 10 cities in India and a few neighboring countries with the highest sales revenue. Simply where there are more people there will be higher revenue.

In the map visualization it is only showing 4 of the top 10 highest revenue restaurants. This is a data ingestion problem where the visualization cannot parse from the dataset and pinpoint on its map exactly where a city is. I wanted to include this to give a general idea of where some of the higher traffic/sales areas are in this analysis.

city	Sum of Sales_amount_usd
Tirupati	510,041.52
Electronic City,Bangalore	343,195.48
Baner,Pune	321,412.67
Raipur	270,889.66
Malviya Nagar,Delhi	198,074.81
Sultanpur	180,678.05
Vastrapur,Ahmedabad	157,101.18
Indirapuram,Delhi	156,329.50
Navrangpura,Ahmedabad	148,756.84
Rohini,Delhi	146,059.70
Total	2,432,539.39

## Conclusion:

In this analysis we can conclude the following characteristics lead to higher restaurant sales in this particular region.

- Affordability - The highest revenue + quantity restaurants are affordable for the average consumer. Higher traffic and good bang for your buck has shown importance in this dataset.
- Ratings around 4 stars show the highest revenue, consistent food that is nothing too fancy yields the highest revenue.
- The most popular cuisine type is North Indian, Chinese with some variation/fusion of the two following. The data is based out of primarily India while China being nearby having a large cultural presence.
- Bigger cities yield higher sales - more mouths to feed
- There is a correlation with quantity sold and higher revenue generated but not in all cases. Restaurants that are very cheap and sell small items do not necessarily generate more revenue than others that sell less for a higher price.
- Franchised food chains like Domino's Pizza have advertising, price and quality control leverage that draw consumers to the eat their food.