

Coffee Shop Sales

An Excel dashboard displaying insights from Maven Roasters' Q1 and Q2 sales from 2023.

Project Overview

Goal 1: Gain insights into customer behavior.

Goal 2: Identify any patterns, trends, or opportunities that can be used to streamline operations.

Prepare Data for Analysis

The provided.csv file contains the following columns:

transaction_id
transaction_date
transaction_time
transaction_qty
store_id
store_location
product_id
unit_price
product_category
product_type
product_detail

After reviewing the data, new columns need to be added to conduct the following tasks:

- Calculate revenue
- Calculate month
- Calculate day of week
- Extract hour

K	L	M	N	O	P	Q
product_detail	Revenue	Month	Month Name	Weekday	Weekday Name	Hour
Ethiopia Rg	\$6.00	1 Jan		7 Sun		7
Spicy Eye Opener Chai Lg	\$6.20	1 Jan		7 Sun		7

Calculate revenue by multiplying the values found in **transaction_qty** and **unit_price**

- =D2*H2

Calculate month and day of week based on **transaction_date**

- =MONTH(B2)
- =TEXT(B2,"mmm")
- =WEEKDAY(B2,2)
- =TEXT(B2,"ddd")

Extract hour from **transcation_time**

- =HOUR(C2)

Remove duplicates and check for spelling errors

Explore Data with Pivot Tables

PivotTable 1: Revenue by month

Row Labels	Sum of Revenue
Jan	\$81,678
Feb	\$76,145
Mar	\$98,835
Apr	\$118,941
May	\$156,728
Jun	\$166,486
Grand Total	\$698,812

PivotTable 2: Number of transactions by day of week

Row Labels	Count of transaction_id
Sun	21096
Mon	21643
Tue	21202
Wed	21310
Thu	21654
Fri	21701
Sat	20510
Grand Total	149116

PivotTable 3: Number of transactions by hour of day

Row Labels	Count of transaction_id
6	4594
7	13428
8	17654
9	17764
10	18545
11	9766
12	8708
13	8714
14	8933
15	8979
16	9093
17	8745
18	7498
19	6092
20	603
Grand Total	149116

PivotTable 4: Number of transactions by product category

Row Labels	Count of transaction_id
Coffee	58416
Tea	45449
Bakery	22796
Drinking Chocolate	11468
Flavours	6790
Coffee Beans	1753
Loose Tea	1210
Branded	747
Packaged Chocolate	487
Grand Total	149116

PivotTable 5: Number of transactions and revenue by product type

Row Labels	Count of transaction_id	Sum of Revenue
Brewed Chai Tea	17183	\$77,082
Gourmet Brewed Coffee	16912	\$70,035
Barista Espresso	16403	\$91,406
Hot Chocolate	11468	\$72,416
Brewed Black Tea	11350	\$47,932
Brewed Herbal Tea	11245	\$47,540
Scone	10173	\$36,866
Organic Brewed Coffee	8489	\$37,747
Drip Coffee	8477	\$31,984
Premium Brewed Coffee	8135	\$38,781
Pastry	6912	\$25,656
Biscotti	5711	\$19,794
Brewed Green Tea	5671	\$23,853
Regular Syrup	4979	\$6,085
Sugar Free Syrup	1811	\$2,324
Grand Total	144919	\$629,499

Build a Dynamic Dashboard

Arrange Pivot Charts on a new sheet. Add a slicer with store locations. Connect to each Pivot Table.



Insights and Recommendations

Busiest Days	
All locations: Monday, Thursday, and Friday <ul style="list-style-type: none">Astoria and Hell's Kitchen: SundayLower Manhattan: Monday	
Customer Behavior	Streamline Operations
Most customers make purchases at the start of their work days (Lower Manhattan). In more residential areas (Astoria and Hell's Kitchen), sales go up on Sunday.	Staffing could be reduced at slower times (e.g. Lower Manhattan during the weekends).

Peak Times	
Astoria and Hell's Kitchen: 8 to 11 am Lower Manhattan: 7 to 11 am <ul style="list-style-type: none">This shop is closer to the city's financial district, which caters to more customers commuting to work, compared to Astoria and Hell's Kitchen.	
Customer Behavior	Streamline Operations
Customers on their way to work earlier in the day tend to visit the Lower Manhattan location. This shop most likely experiences more take away orders, and less of a sit-down cafe atmosphere, compared to Astoria and Hell's Kitchen.	Ensure all locations, especially Lower Manhattan, are fully stocked on popular items at the start of the day.

Operating Hours	
Decline in transactions during evenings <ul style="list-style-type: none">Astoria: Does not experience a declineHell's Kitchen: 8 pmLower Manhattan: 7 pm	
Customer Behavior	Streamline Operations
Customers are not looking to buy coffee or other related products after the late afternoon hours.	It would be worth closing Hell's Kitchen at 8 pm and Lower Manhattan at 7 pm, rather than keeping both shops open until 9 pm.

Top Selling Product Types	
All locations: <ul style="list-style-type: none"> Brewed Chai Tea Gourmet Brewed Coffee Barista Espresso 	
Customer Behavior	Streamline Operations
The products that customers prefer are drip coffee, espresso-based drinks, and flavored tea (chai).	For inventory purposes, it would benefit each location to have enough brewed coffee, espresso, and chai tea to fulfill the customer needs during peak hours.

Top Selling Product Details	
During peak hours at each shop, the standout item is the chocolate croissant.	
Customer Behavior	Streamline Operations
Despite the most popular product types being coffee, tea, and espresso, customers prefer to accompany their drinks with a snack, in particular, a chocolate croissant, during the peak morning hours.	Keep chocolate croissants in stock during peak hours.