DATA VISUALIZATION PROJECT

KPI DASHBOARD FOR A COFFEE SHOP

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PROJECT OVERVIEW

- This is an Excel project to track and analyze sales data for a coffee shop over 3 locations. The project records daily sales, generate insightful reports, and provide visualizations to help manage inventory and improve business decision-making.
- Excel's combination of data management, visualization, and interactive capabilities makes it a powerful tool for creating effective and insightful dashboards to drive informed decision-making in a coffee shop sales project.

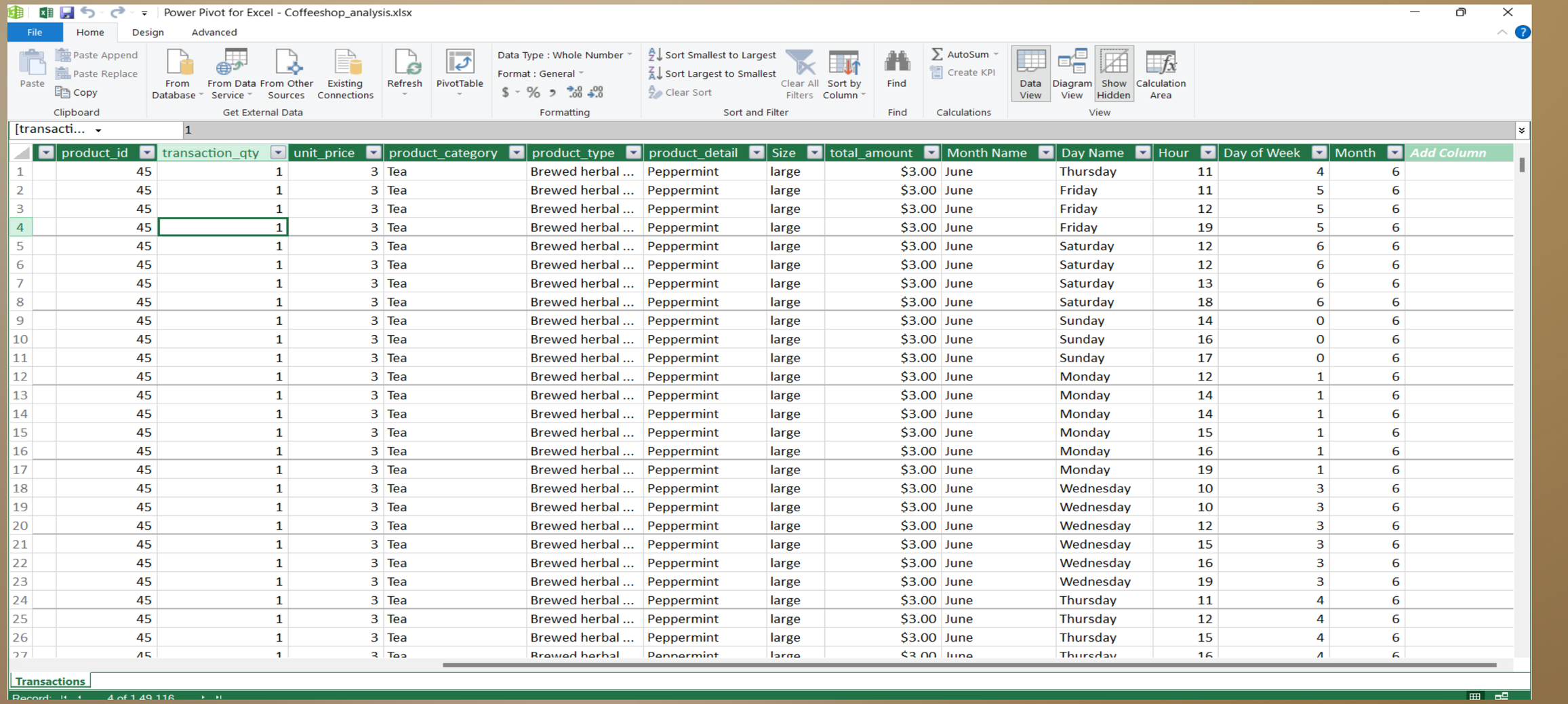
PROBLEM STATEMENT

- Identify the data sources pertaining to sales management
- Clean and model the data as per requirement for analysis
- Create a sales dashboard that measures important KPIs
- Relevant filters need to provided to slice and dice the data
- The dashboard should depict both high level and granular insights

SOLUTION APPROACH

- Excel was the tool used for creating the visualization/dashboard.
- The data was imported, analyzed and transformed as per necessity within Power Pivot.

DATA CLEANING/TRANSFORMATION IN POWER QUERY



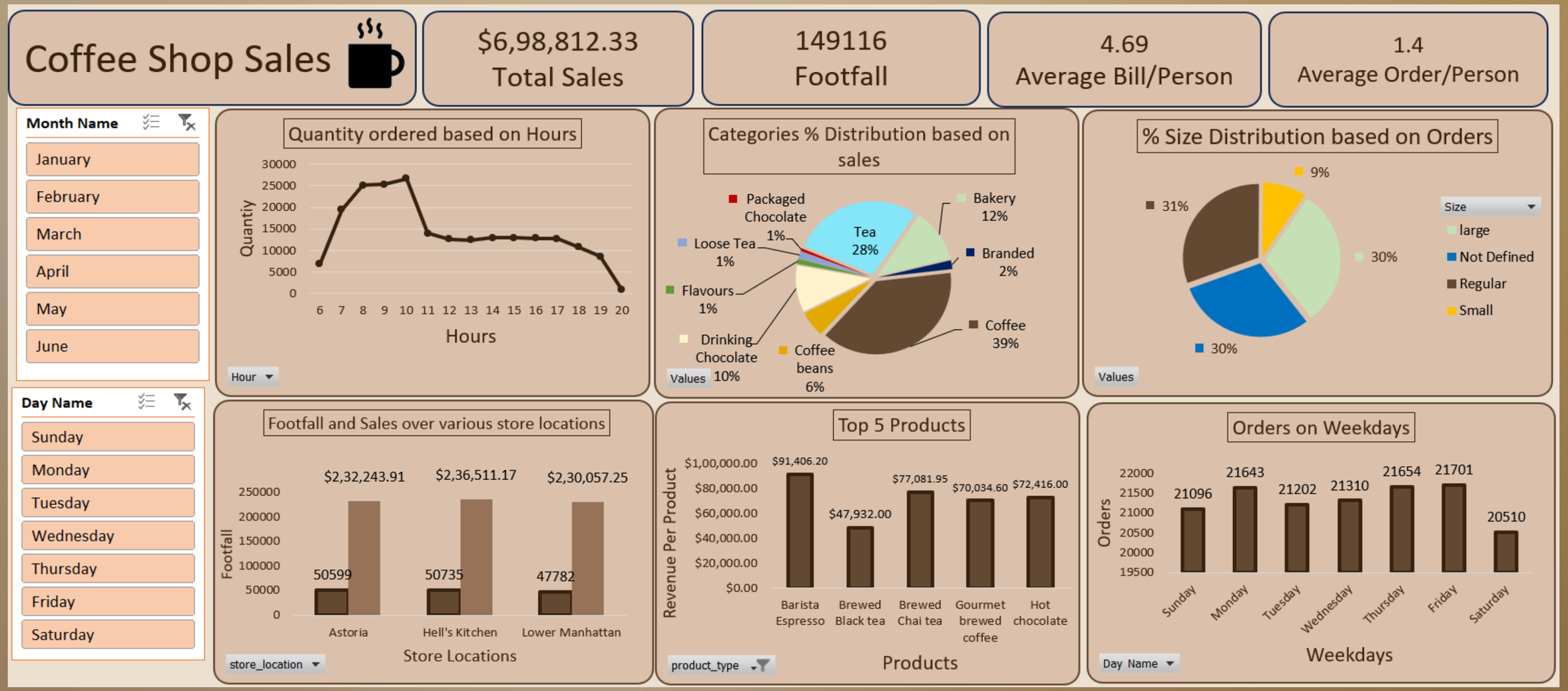
	product_id	transaction_qty	unit_price	product_category	product_type	product_detail	Size	total_amount	Month Name	Day Name	Hour	Day of Week	Month
1	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Thursday	11	4	6
2	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Friday	11	5	6
3	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Friday	12	5	6
4	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Friday	19	5	6
5	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Saturday	12	6	6
6	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Saturday	12	6	6
7	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Saturday	13	6	6
8	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Saturday	18	6	6
9	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Sunday	14	0	6
10	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Sunday	16	0	6
11	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Sunday	17	0	6
12	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Monday	12	1	6
13	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Monday	14	1	6
14	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Monday	14	1	6
15	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Monday	15	1	6
16	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Monday	16	1	6
17	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Monday	19	1	6
18	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Wednesday	10	3	6
19	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Wednesday	10	3	6
20	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Wednesday	12	3	6
21	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Wednesday	15	3	6
22	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Wednesday	16	3	6
23	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Wednesday	19	3	6
24	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Thursday	11	4	6
25	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Thursday	12	4	6
26	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Thursday	15	4	6
27	45	1	3	Tea	Brewed herbal ...	Peppermint	large	$3.00	June	Thursday	16	4	6

SOLUTION APPROACH

- A few measures were created to measure the KPIs as shown below:

- Total Sales = Sum of Total sales(in $.)
- Total footfall = Count of transaction_id from the data.
- Average Bill = Average of sum of total_amount.
- Average order/person = Average of sum of transaction_quantity.

SALES DASHBOARD



BUSINESS OUTCOMES

The following are some important business insights derived from the sales dashboard:

- The coffee shop generates highest sales in the month of June and lowest in the month of February around all three locations. Shop needs to focus on sales in the months from January to March.
- The shop Footfall is 149116 across all three store locations around the months of January to June which is good but should focus on increasing it.
- The average order per person stands at 1.4 items which is suboptimal and poses several challenges for our business. To address this issue, I recommend to enhance Upselling and Cross-Selling Strategies and Product Placement and Merchandising strategies.

BUSINESS OUTCOMES

The following are some important business insights derived from the sales dashboard:

- Comparing all the store locations, Hell’s Kitchen generate the highest revenue followed by Astoria and Lower Manhattan respectively.
- Top 5 Products generating the highest revenue are :

1. Barista Espresso
2. Brewed Black Tea
3. Brewed Chai Tea
4. Gourmet Brewed coffee
5. Hot Chocolate

BUSINESS OUTCOMES

The following are some important business insights derived from the sales dashboard:

- Regular-sized orders constitute the largest share at 31%, while small-sized orders are the least common at 9%, with large and undefined sizes each making up 30% of the orders.
- Orders peak on Friday, with the highest count of 21,701, while the lowest number of orders occurs on Saturday, at 20,510.
- Coffee has the highest category wise % distribution of sales whereas loose tea, Packaged chocolates and Flavors have the lowest sales.

CONCLUSION

- A sales dashboard was built for a Coffee Shop depicting its various KPIs visually
- Relevant filters along with tooltips and interactions was provided in the dashboard
- This dashboard can be used for both high-level and in-depth analysis of KPIs across various dimensions

THANK YOU

WORK PLANNING PRESENTATION | 2023