**6 Steps in Data Analysis Process**

**Stage 1: data Collection**

Point of sale systems, customer feedback forms, online reviews, social media, website analytics,

* To gather sales trends, customer demographics, preferences, behavioral patterns

For example: most popular foods and beverages, peak hours, seasonal fluctuation.

**Stage 2: Data Organisation and cleaning**

Carefully organize, formatting, and clean the data for further analysis

**Stage 3: Data Analysis**

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| --- | --- |
| Data Type | Data Insights |
| Customer Data | -primary customer demographic have change and café owner only cater specific demographics only.  - demand for more plant based milk |
| Sales Data | * Certain menu items not selling well * Plant based milk options limited and ofter out of stock * Patterns of decline in sales, in weekdays and at various hours |
| Competitor Data | * Certain menu items are priced higher than competitors * Competitor much faster serving and focus on takeaways. * Competitors have stronger social media appearances and have loyalty rewards |

**Stage 4: Data Visualization**

Create chart, graph, dashboard,

**Stage 5: Generating data driven recommendations**

Develop actionable recommendations,

**Stage 6: Implement Recommendation and monitor results**

Share reports, gather feedbacks and monitor performance

Question and Answers

1. Determine the scope and data types to be gathers that align with the project objectives
2. To gather as much data as possible that relevant to determine factors that affect business, their problems, challenges and opportunities to be enlighten for data driven decisions that may not be apparent from just a single source.
3. Ensure the data are useful for analysis and of high quality: accurate, consistent and reliable
4. Missing values, inconsistent data , duplicates entries, errors in data
5. Ratings and reviews, customer demographics, inventory data, sales data
6. Enhance communication of data insights
7. Ensure actions taken are based on facts, future performance can monitored more effectively since past data are being kept for reference
8. Introduced new menus with plant based milk, focus on takeaways with fast lane process and convenient packing for customers, targeted promotion for wider customer demographics, target promo during low peak sales hour and day. Try different marketing channels
9. Share recommendations and continue to collect and analyze data to tract the impact of recommendations.
10. Ensure the data driven decision are align with the business objectives and stakeholders interests and produced desired results. The data analysis is an ongoing process and need to make adjustment based on real world data for continuous improvement and recommendation.
11. Continue to gather data and kept the records securely and organized. Important for futher analysis and improvement in the future. Encouraging open communications, collaboration, and mindset of continuous improvement.
12. Ensure the recommendation actions are effective, relevant and align with corporate strategies; identify room for improvements in the whole process.