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Decoding The Technical Analysis of a Business

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ABSTRACT—

This technical document contains the overall spectrum of how a business can be studied and can hence be modified using the basic outputs being present in the data sets of a business.

We study about the various insights which a business usually gives but are often un noticed either by the technical team or the business owner himself.

This report gives a sample aid to other researches which are also based on the technical aspect of a business

Introduction

We usually notice that small business owners never keep a track record of their daily business details which can be the breaking ice point for many owners as well but usually if these mistakes or points or data sets are ignored , cause a ever lasting effect on the earnings as well as the potential of further business growth

Here in this paper , we will come across the real life (project based) example of Sharma ji Kiryana Store where we will surely notice the major impact which a business owner can make or break using the tiny and minute but important details

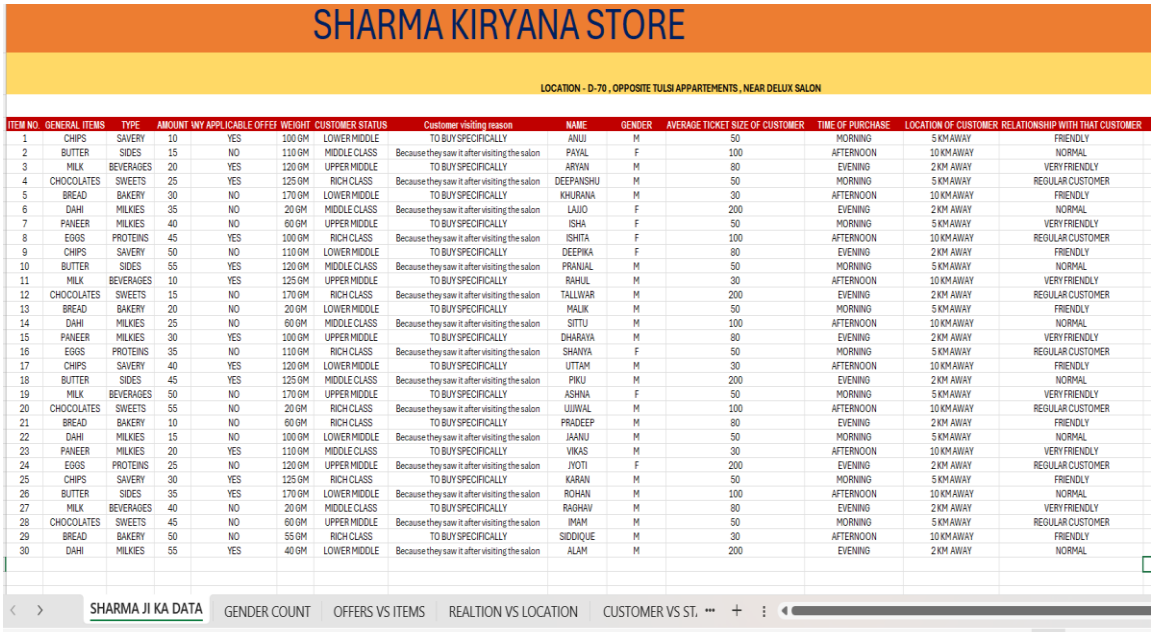
This can lead to a major shift where the businesses can be converted from the reactive approach towards the proactive approach that usually ensures customer engagement and also improves the stock quality as well as the quality of business usually practiced by the owners

METHODOLOGY

In this sub topic, we will observe that what are the basic terms and insights the data is composed of, also what are the major sets of information which are available to us from the Sharmaji Kiryana Store

Basic Data sets Collection;

the basic data collection was based out of the data provided in the MS excel workbook which contained the minute as well as the comprehensive data based out of Sharmaji Stock
The data contains the overall info like, the items, rates, customer visits, reasons, the basic data of customer and the basic relationship of those customers with Sharma ji
The arrangement of data sets was done manually using the help many excel based functions
The overall data set was categorized in the form of charts and graphs to get the insights from the MS EXCEL data sheet and to know that what are the basic presence of Sharmaji in the overall market
The data sheet was then used in a much more advanced manner to get the insights



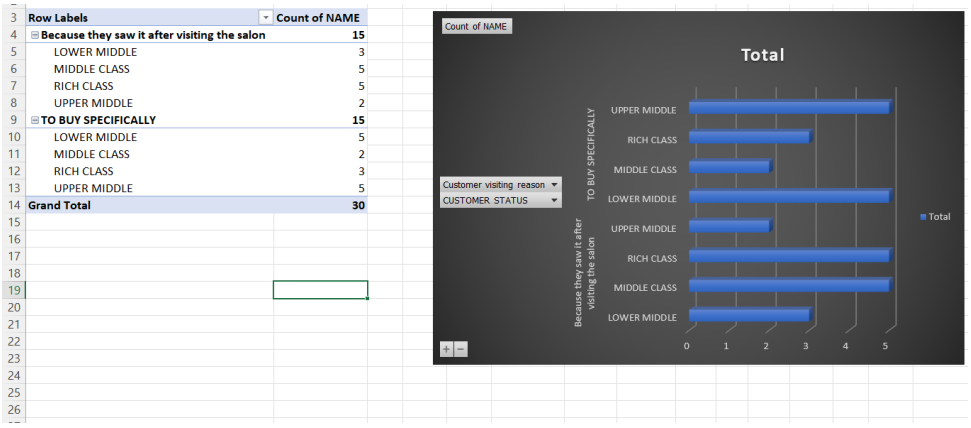
SHARMA KIRYANA STORE

LOCATION - D-70 , OPPOSITE TULSI APPARTEMENTS , NEAR DELUX SALON

ITEM NO.	GENERAL ITEMS	TYPE	AMOUNT	ANY APPLICABLE OFFER	WEIGHT	CUSTOMER STATUS	Customer visiting reason	NAME	GENDER	AVERAGE TICKET SIZE OF CUSTOMER	TIME OF PURCHASE	LOCATION OF CUSTOMER	RELATIONSHIP WITH THAT CUSTOMER
1	CHIPS	SAVERY	10	YES	100 GM	LOWER MIDDLE	TO BUY SPECIFICALLY	ANUJ	M	50	MORNING	5 KM AWAY	FRIENDLY
2	BUTTER	SIDES	15	NO	110 GM	MIDDLE CLASS	Because they saw it after visiting the salon	PAYAL	F	100	AFTERNOON	10 KM AWAY	NORMAL
3	MILK	BEVERAGES	20	YES	120 GM	UPPER MIDDLE	TO BUY SPECIFICALLY	ARYAN	M	80	EVENING	2 KM AWAY	VERY FRIENDLY
4	CHOCOLATES	SWEETS	25	YES	125 GM	RICH CLASS	Because they saw it after visiting the salon	DEEPANSHU	M	50	MORNING	5 KM AWAY	REGULAR CUSTOMER
5	BREAD	BAKERY	30	NO	170 GM	LOWER MIDDLE	TO BUY SPECIFICALLY	KHURANA	M	30	AFTERNOON	10 KM AWAY	FRIENDLY
6	DAHI	MILKIES	35	NO	20 GM	MIDDLE CLASS	Because they saw it after visiting the salon	LAJJO	F	200	EVENING	2 KM AWAY	NORMAL
7	PANEER	MILKIES	40	NO	60 GM	UPPER MIDDLE	TO BUY SPECIFICALLY	ISHA	F	50	MORNING	5 KM AWAY	VERY FRIENDLY
8	EGGS	PROTEINS	45	YES	100 GM	RICH CLASS	Because they saw it after visiting the salon	ISHITA	F	100	AFTERNOON	10 KM AWAY	REGULAR CUSTOMER
9	CHIPS	SAVERY	50	NO	110 GM	LOWER MIDDLE	TO BUY SPECIFICALLY	DEEPIKA	F	80	EVENING	2 KM AWAY	FRIENDLY
10	BUTTER	SIDES	55	YES	120 GM	MIDDLE CLASS	Because they saw it after visiting the salon	PRANJAL	M	50	MORNING	5 KM AWAY	NORMAL
11	MILK	BEVERAGES	10	YES	125 GM	UPPER MIDDLE	TO BUY SPECIFICALLY	RAHUL	M	30	AFTERNOON	10 KM AWAY	VERY FRIENDLY
12	CHOCOLATES	SWEETS	15	NO	170 GM	RICH CLASS	Because they saw it after visiting the salon	TALLWAR	M	200	EVENING	2 KM AWAY	REGULAR CUSTOMER
13	BREAD	BAKERY	20	NO	20 GM	LOWER MIDDLE	TO BUY SPECIFICALLY	MALIK	M	50	MORNING	5 KM AWAY	FRIENDLY
14	DAHI	MILKIES	25	NO	60 GM	MIDDLE CLASS	Because they saw it after visiting the salon	SITTU	M	100	AFTERNOON	10 KM AWAY	NORMAL
15	PANEER	MILKIES	30	YES	100 GM	UPPER MIDDLE	TO BUY SPECIFICALLY	DHARAYA	M	80	EVENING	2 KM AWAY	VERY FRIENDLY
16	EGGS	PROTEINS	35	NO	110 GM	RICH CLASS	Because they saw it after visiting the salon	SHANYA	F	50	MORNING	5 KM AWAY	REGULAR CUSTOMER
17	CHIPS	SAVERY	40	YES	120 GM	LOWER MIDDLE	TO BUY SPECIFICALLY	UTTAM	M	30	AFTERNOON	10 KM AWAY	FRIENDLY
18	BUTTER	SIDES	45	YES	125 GM	MIDDLE CLASS	Because they saw it after visiting the salon	PIKU	M	200	EVENING	2 KM AWAY	NORMAL
19	MILK	BEVERAGES	50	NO	170 GM	UPPER MIDDLE	TO BUY SPECIFICALLY	ASHNA	F	50	MORNING	5 KM AWAY	VERY FRIENDLY
20	CHOCOLATES	SWEETS	55	NO	20 GM	RICH CLASS	Because they saw it after visiting the salon	UJJWAL	M	100	AFTERNOON	10 KM AWAY	REGULAR CUSTOMER
21	BREAD	BAKERY	10	NO	60 GM	RICH CLASS	TO BUY SPECIFICALLY	PRADEEP	M	80	EVENING	2 KM AWAY	FRIENDLY
22	DAHI	MILKIES	15	NO	100 GM	LOWER MIDDLE	Because they saw it after visiting the salon	JAANU	M	50	MORNING	5 KM AWAY	NORMAL
23	PANEER	MILKIES	20	YES	110 GM	MIDDLE CLASS	TO BUY SPECIFICALLY	VIKAS	M	30	AFTERNOON	10 KM AWAY	VERY FRIENDLY
24	EGGS	PROTEINS	25	NO	120 GM	UPPER MIDDLE	Because they saw it after visiting the salon	JYOTI	F	200	EVENING	2 KM AWAY	REGULAR CUSTOMER
25	CHIPS	SAVERY	30	YES	125 GM	RICH CLASS	TO BUY SPECIFICALLY	KARAN	M	50	MORNING	5 KM AWAY	FRIENDLY
26	BUTTER	SIDES	35	YES	170 GM	LOWER MIDDLE	Because they saw it after visiting the salon	ROHAN	M	100	AFTERNOON	10 KM AWAY	NORMAL
27	MILK	BEVERAGES	40	NO	20 GM	MIDDLE CLASS	TO BUY SPECIFICALLY	RAGHAV	M	80	EVENING	2 KM AWAY	VERY FRIENDLY
28	CHOCOLATES	SWEETS	45	NO	60 GM	UPPER MIDDLE	Because they saw it after visiting the salon	IMAM	M	50	MORNING	5 KM AWAY	REGULAR CUSTOMER
29	BREAD	BAKERY	50	NO	55 GM	RICH CLASS	TO BUY SPECIFICALLY	SIDDIQUE	M	30	AFTERNOON	10 KM AWAY	FRIENDLY
30	DAHI	MILKIES	55	YES	40 GM	LOWER MIDDLE	Because they saw it after visiting the salon	ALAM	M	200	EVENING	2 KM AWAY	NORMAL

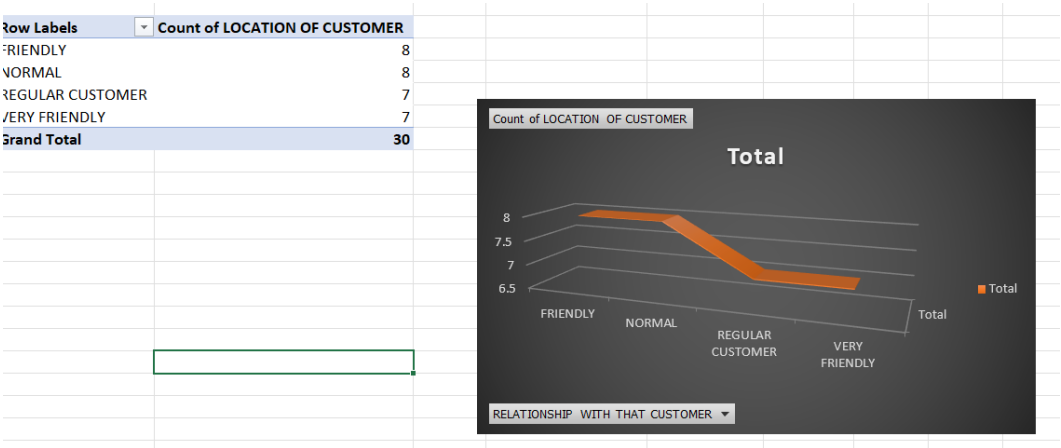
SHARMA JI KA DATA | GENDER COUNT | OFFERS VS ITEMS | REALTION VS LOCATION | CUSTOMER VS ST.

Figure 1; INITIAL STATS AND FORMATED TABLE FOR RESEARCH



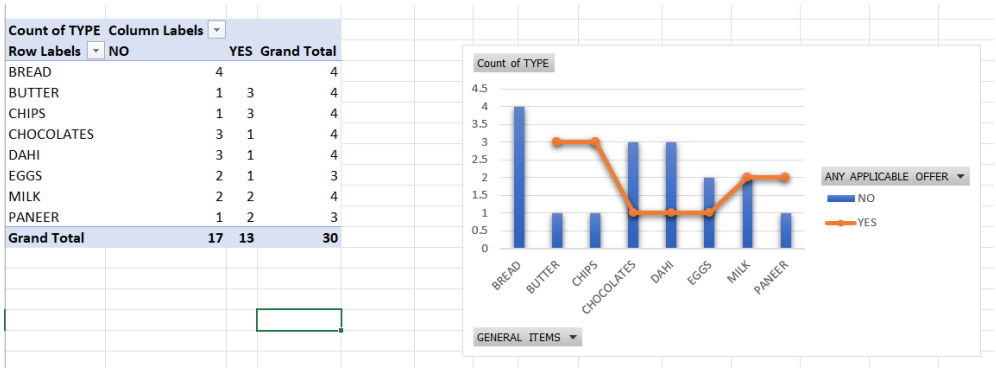
Row Labels	Count of NAME
Because they saw it after visiting the salon	15
LOWER MIDDLE	3
MIDDLE CLASS	5
RICH CLASS	5
UPPER MIDDLE	2
TO BUY SPECIFICALLY	15
LOWER MIDDLE	5
MIDDLE CLASS	2
RICH CLASS	3
UPPER MIDDLE	5
Grand Total	30

Figure 2; Further studies on the Researched table



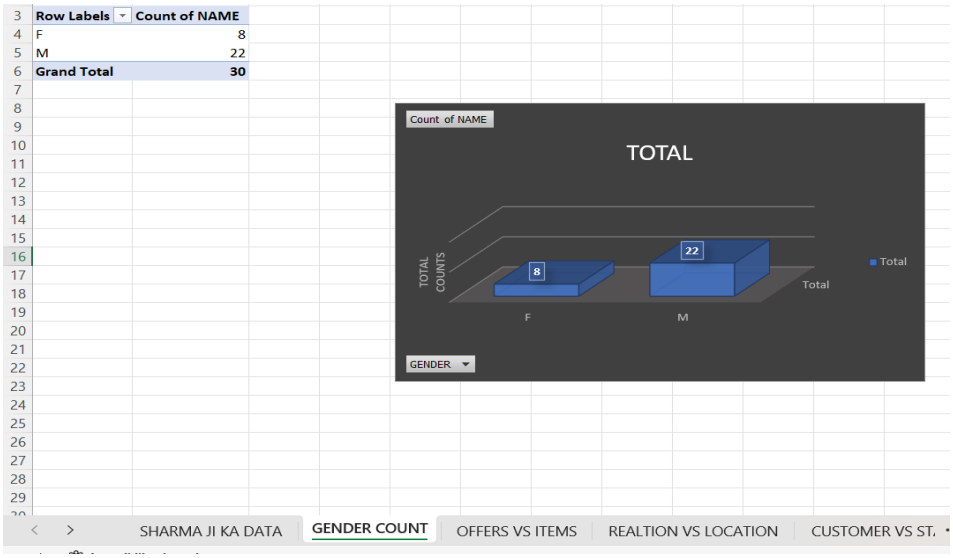
Row Labels	Count of LOCATION OF CUSTOMER
FRIENDLY	8
NORMAL	8
REGULAR CUSTOMER	7
VERY FRIENDLY	7
Grand Total	30

Figure 3 ; Further studies on the Researched table



Count of TYPE	Column Labels		
Row Labels	NO	YES	Grand Total
BREAD	4		4
BUTTER	1	3	4
CHIPS	1	3	4
CHOCOLATES	3	1	4
DAHI	3	1	4
EGGS	2	1	3
MILK	2	2	4
PANEER	1	2	3
Grand Total	17	13	30

Figure 4 ; Further studies on the Researched table



Row Labels	Count of NAME
F	8
M	22
Grand Total	30

Figure 5 ; Further studies on the Researched table

DATA FILTERING USING SQL SOFTWARES

The data was then filtered using sql platforms like online SQL compiler and then the data was converted to a readable form which can now be understood by many easily

- **SQL queries for the mentioned top 50 sql based questions**

```sql
-- 1. Total number of items
SELECT COUNT(*) FROM store;

-- 2. Total amount spent by all customers
SELECT SUM(AMOUNT) FROM store;

-- 3. Count of unique general items
SELECT COUNT(DISTINCT GENERAL_ITEMS) FROM store;

-- 4. Most expensive item
SELECT GENERAL_ITEMS, MAX(AMOUNT) FROM store;

-- 5. Least expensive item
SELECT GENERAL_ITEMS, MIN(AMOUNT) FROM store;

-- 6. Total amount spent by customers with status "Middle Class"
SELECT SUM(AMOUNT) FROM store WHERE CUSTOMER_STATUS = 'MIDDLE CLASS';

-- 7. Number of items bought by customers who have a "Friendly" relationship
SELECT COUNT(*) FROM store WHERE RELATIONSHIP_WITH_THAT_CUSTOMER = 'FRIENDLY';

-- 8. Total amount spent by customers who saw the item after visiting the salon
SELECT SUM(AMOUNT) FROM store WHERE CUSTOMER_VISITING_REASON LIKE '%salon%';

-- 9. Number of unique milk-based products (Milk, Dahi, Paneer)
SELECT COUNT(DISTINCT GENERAL_ITEMS) FROM store WHERE TYPE = 'MILKIES';

-- 10. Number of purchases made in the morning
SELECT COUNT(*) FROM store WHERE TIME_OF_PURCHASE = 'MORNING';

-- 11. Number of purchases made in the afternoon
SELECT COUNT(*) FROM store WHERE TIME_OF_PURCHASE = 'AFTERNOON';

-- 12. Number of purchases made in the evening
SELECT COUNT(*) FROM store WHERE TIME_OF_PURCHASE = 'EVENING';

-- 13. Customer with the highest ticket size
SELECT NAME, MAX(AVERAGE_TICKET_SIZE_OF_CUSTOMER) FROM store;
```

```sql
-- 14. Customer with the lowest ticket size
SELECT NAME, MIN(AVERAGE_TICKET_SIZE_OF_CUSTOMER) FROM store;

-- 15. Total amount spent by customers from 5 KM away
SELECT SUM(AMOUNT) FROM store WHERE LOCATION_OF_CUSTOMER = '5 KM AWAY';

-- 16. Total amount spent by customers from 10 KM away
SELECT SUM(AMOUNT) FROM store WHERE LOCATION_OF_CUSTOMER = '10 KM AWAY';

-- 17. Most common customer status
SELECT CUSTOMER_STATUS FROM store GROUP BY CUSTOMER_STATUS ORDER BY COUNT(*) DESC LIMIT 1;

-- 18. Most common customer location
SELECT LOCATION_OF_CUSTOMER FROM store GROUP BY LOCATION_OF_CUSTOMER ORDER BY COUNT(*) DESC LIMIT 1;

-- 19. Average amount spent per purchase
SELECT AVG(AMOUNT) FROM store;

-- 20. Number of unique item types
SELECT COUNT(DISTINCT TYPE) FROM store;

-- 21. Total amount spent on Chips
SELECT SUM(AMOUNT) FROM store WHERE GENERAL_ITEMS = 'CHIPS';

-- 22. Total amount spent on Chocolates
SELECT SUM(AMOUNT) FROM store WHERE GENERAL_ITEMS = 'CHOCOLATES';

-- 23. Most purchased sweet item
SELECT GENERAL_ITEMS FROM store WHERE TYPE = 'SWEETS' GROUP BY GENERAL_ITEMS ORDER BY COUNT(*) DESC LIMIT 1;

-- 24. Most purchased savory item
SELECT GENERAL_ITEMS FROM store WHERE TYPE = 'SAVERY' GROUP BY GENERAL_ITEMS ORDER BY COUNT(*) DESC LIMIT 1;

-- 25. Number of purchases made for Butter
SELECT COUNT(*) FROM store WHERE GENERAL_ITEMS = 'BUTTER';

-- 26. Number of purchases made for Bread
SELECT COUNT(*) FROM store WHERE GENERAL_ITEMS = 'BREAD';
```

```sql
-- 27. Total amount spent by customers with "Upper Middle" status
SELECT SUM(AMOUNT) FROM store WHERE CUSTOMER_STATUS = 'UPPER MIDDLE';

-- 28. Total amount spent by customers with "Rich Class" status
SELECT SUM(AMOUNT) FROM store WHERE CUSTOMER_STATUS = 'RICH CLASS';

-- 29. Number of Milk-based purchases
SELECT COUNT(*) FROM store WHERE TYPE = 'MILKIES';

-- 30. Most common time of purchase
SELECT TIME_OF_PURCHASE FROM store GROUP BY TIME_OF_PURCHASE ORDER BY COUNT(*) DESC LIMIT 1;

-- 31. Number of customers who purchased in the evening
SELECT COUNT(*) FROM store WHERE TIME_OF_PURCHASE = 'EVENING';

-- 32. Number of customers who purchased in the afternoon
SELECT COUNT(*) FROM store WHERE TIME_OF_PURCHASE = 'AFTERNOON';

-- 33. Number of customers who purchased in the morning
SELECT COUNT(*) FROM store WHERE TIME_OF_PURCHASE = 'MORNING';

-- 34. Distance categories of customers
SELECT DISTINCT LOCATION_OF_CUSTOMER FROM store;
```

DATA TO BE VISUALISED

USING PWER BI

Finally, the data was then converted to the extensive dashboard of POWER BI which can now be read , understood , visualised properly

Desktop Form

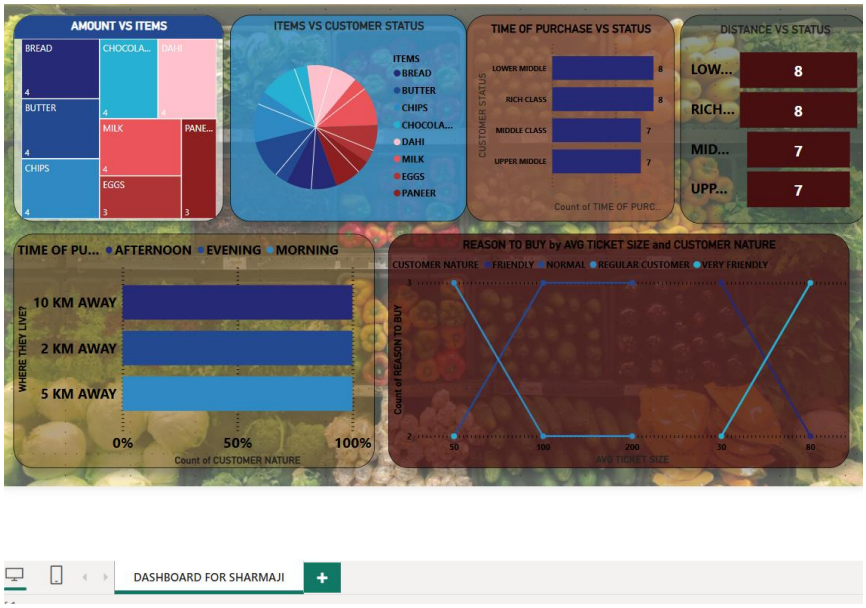


Figure 6 ; Figure representing desktop format of Study through POWER BI

Mobile Form

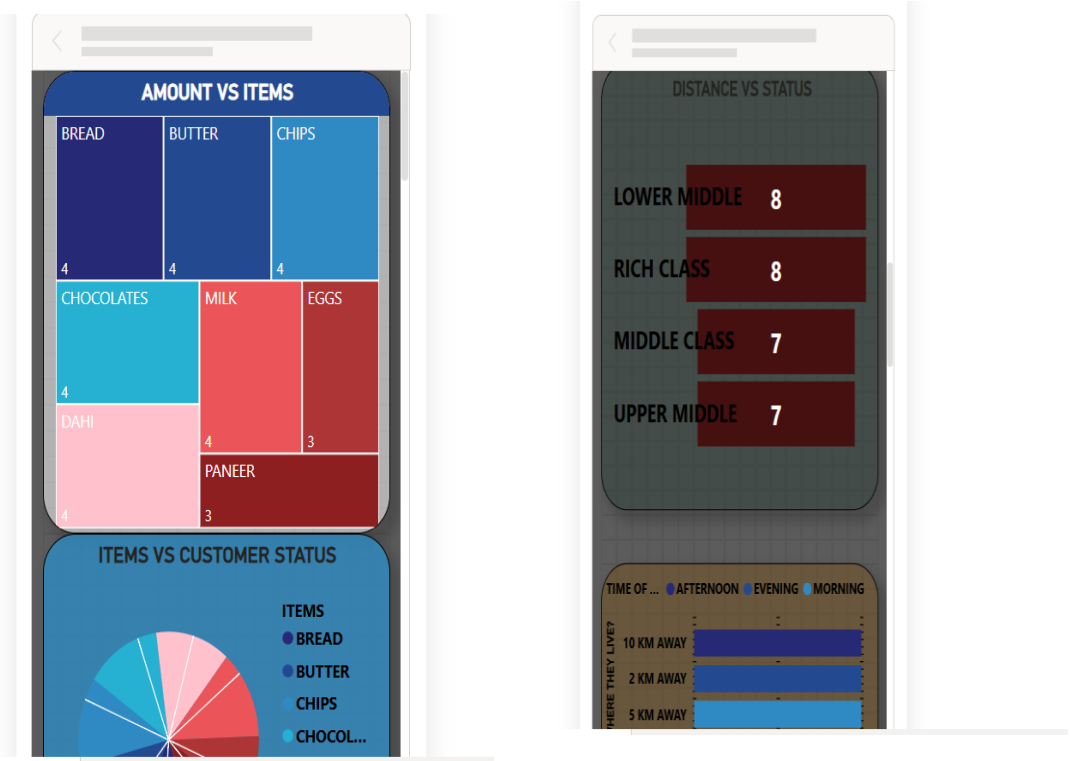


Figure 7 ; Figure representing MOBILE format of Study through POWER BI

RESULTS

The results which are displayed ,contains the end results from various tech softwares and machine aid

SHARMAJI KIRAYANA STORE

EXCEL FILE

BASIC DATA AFTER ANALYSIS;

- THE AVERAGE TICKET OF MIDDLE CLASS STATUS WAS 80 WHICH WAS 50% OF ALL TYPES OF CUSTOMER
- CUSTOMERS WHO BOUGHT CHIPS WERE THE MOST FRIENDLY WITH SHARMA JI
- WHO WERE AT THE SHOP - THE FRIENDLY INDIVIDUALS WERE THERE TO BUY SPECIFIC PRODUCTS FROM SHARMA JI
- MOST OF THE CUSTOMERS WERE MIDDLE CLASS WHOSE TOTAL SPENT AMOUNT TO PURCHASE GOODS WERE THE HIGHEST
- THE MAXIMUM REVENUE GENERATED BY SHARMA JI WAS BY SELLING BUTTER TO HIS CUSTOMERS
- BOTH THE FREQUENCY AND AMOUNT OF SELLING CHOCOLATES WAS THE MAXIMUM
- PRODUCTS WITH SHARMA JI WHICH HAD LEAST NO. OF DIFFERENT WEIGHTS AVAILABLE WITH HIM WERE – EGGS AND PANEER

TOP 10

INSIGHTS

1. Most Frequent Product Category Sold → Chocolates
   - Chocolates were the most frequently purchased item, indicating high demand for sweets among customers.

2. Highest Revenue-Generating Product → Dahi
   - Among all items, Dahi (₹55 per unit) generated the most revenue, making it the top-selling high-value product.

3. Most Common Customer Category → Middle-Class Customers
   - A majority of the customers belonged to the Middle-Class segment, making them the primary revenue contributors

3. Most Common Customer Category → Middle-Class Customers
    - A majority of the customers belonged to the Middle-Class segment, making them the primary revenue contributors.

4. Peak Shopping Time → Evening
    - The highest number of purchases happened in the Evening, suggesting that most customers prefer shopping later in the day.

5. Most Common Customer Visiting Reason → "To Buy Specifically"
    - A large number of customers came with a clear purpose to buy specific products rather than impulse purchases.

6. Most Common Location of Customers → 5 KM Away
    - The majority of customers came from locations 5 KM Away, making this the most active shopping zone.

7. Highest-Spending Customer → Tallwar (₹200 Ticket Size)
    - The highest single transaction was made by Tallwar, who had the largest ticket size of ₹200.

8. Most Frequent Customer Relationship Type → Friendly

    - A large portion of customers were classified as "Friendly", showing strong engagement and loyalty with the store.

9. Discounted Transactions vs. Non-Discounted Transactions → Equal Split
    - 15 transactions had applied discounts, while 15 transactions were at full price, showing that offers were used effectively.

10. Revenue Contribution of "Regular Customers" → ₹320

- Regular Customers contributed a significant ₹320, making them one of the most valuable customer segments for Sharma Kiryana Store.

CONCLUSIONS

From the above mentioned report , we can clearly conclude that from now on , Sharmaji and also various other business owners will be able to maintain a data sheet or a fact sheet , and can get a real insight of how a business can be given its due respect and value.

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