

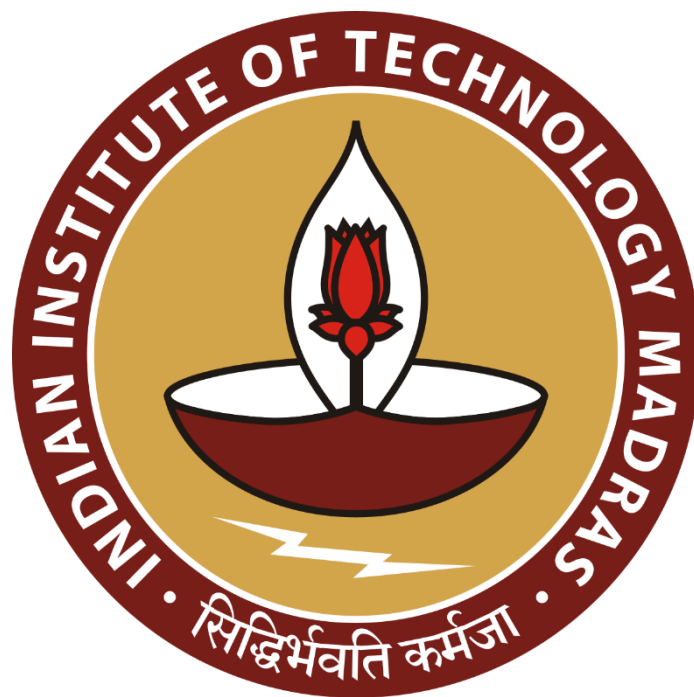
# **Data-Driven Operational Strategies for Sustainable Growth in Local Kirana Retail**

**An End-Term report for the BDM capstone Project**

Submitted by

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### **All Google sheet links:**

[Flat\\_Wise\\_Credit\\_Monthly\\_WithCharts\\_WITH\\_STATS](#)

[Intake\\_Inventory](#)

[kirana\\_sales\\_store\\_cleaned](#)

## **1 Executive Summary**

### **Introduction:**

‘Shree Sai Samarth Food Mall’ is a local kirana store in Kandivali East, Mumbai. It has been catering to residential customers for the past few years. Being an integral part of the local community, the store is involved in the daily purchase of milk, bakery items, staples, snacks, and beverages as well as personal care products. The business, however, is not without its challenges. It suffers from operational inefficiencies that affect its profitability and prevent it from growing in a sustainable manner. The store has been facing instability due to fluctuating daily demand, high waste in dairy and bakery items, slow moving FMCG inventory and inconsistent credit repayments from credit customers. These issues have led to blockage in working capital, reduction in profit and an irregular cash flow.

For this assignment sales, purchase and credit data for the months of September, October and November 2025 were gathered, cleaned and organised into google spreadsheets.

### **Challenges:**

The store is caught up with daily sales that vary from day to day, the profit margins are not stable and wastage due to products with short shelf life as well as products which are bought in bulk. They make inventory decision without data driven insights which in turn causes overstocking in slow moving products as well as capital being tied in stock that is not used. Moreover, household-level credit is quite challenging to handle which leads to high outstanding balances and slow repayments. These problems have a negative effect on the store's operational efficiency and leave room for its financial performance to grow further.

### **Project Approach:**

To Overcome these Challenges we did a thorough analysis that included checking of the sales, purchases and the credit data. We revealed the business patterns by applying ABC classification, revenue and margin analysis, expiry risk assessment, credit scoring and inventory turnover evaluation techniques. Their main goal is to employ data driven decisions in order to improve stock planning reduce the wastage and have a better control over credit risks and increase profitability. As a result of these initiatives the store will be able to enhance its operational efficiency and have a better impact in the market.

## 2 Detailed Explanation of Analysis Process/Method

### 2.1. Method for Sales, Revenue and Margin Analysis

To address the challenges we started off by a multi step financial analysis to assess the stores daily performance and locate the main revenue generating categories

#### 1. Revenue Calculation:

- Revenues for each product were calculated and then categorized into the following categories(Dairy,Bakery,Staples,Snacks,Beverages,Vegetables etc).The revenue was determined by:
  - o Total quantity sold
  - o Average unit price
  - o Category wise sales trend
- This allowed the store to know which categories lead to total revenue the most

#### 2. Profit and Margin Computation:

To calculate profit margins the difference between the selling price and the cost price were measured

Formulas used:

- Profit=Total profit per category
- $\text{margin}\% = (\text{Total Profit} / \text{Total Revenue}) * 100$

This helps us identify the low margin categories(Dairy,Bakery,Staples) and the high margin categories(Snacks,Personal Care)

#### 3. Daily Trend Evaluation :

- Daily trends were examined with the help of spreadsheet functions and pivot tables:
  - Daily total revenue
  - Daily profit
  - Day wise category performance
- This revealed patterns such as:
  - Higher sales on weekends
  - Increased demand for dairy during the morning
  - Variations based on customer footfall

#### 4. Spreadsheet Utilisation:

- Spreadsheet were used extensively to:
  - o Clean the data
  - o Aggregated revenue calculation
  - o Pivot table production
  - o Descriptive statistic generation
  - o Charting of trends for visualization

Shree Samarth Food Mall needed an in-depth review of its financial performance. To meet this need, an analysis was conducted focusing on daily sales, category wise contributions, and profitability. The work entailed measuring the total money made from each product category, the profit margins going along with it, and spotting the trends in daily operations. The goal of this exercise was to use these financial metrics to illuminate the revenue, generating categories, figure out margin efficiency, and locate the sections where operational improvements could be implemented.

A	B	C	D	E	F	G	H	I	J
Date	Day	Category	Avg_Quantity	Avg_Unit_Price	Avg_Profit_Margin	Total_Revenue	Total_Profit	Avg_Price_Bought	Avg_Expiry
2025-09-01	Monday	Bakery	12	36	11	881	93	32	1 day
2025-09-01	Monday	Beverages	2	32	14	208	27	27	10 days
2025-09-01	Monday	Dairy	7	95	9	3066	232	86	2 days
2025-09-01	Monday	Household	4	18	23	179	33	14	1 year
2025-09-01	Monday	Other	6	29	15	172	26	24	Varies
2025-09-01	Monday	Personal Care	2	141	11	282	32	125	6-18 months
2025-09-01	Monday	Snacks	3	36	18	396	71	30	1 month
2025-09-01	Monday	Staples	4	94	9	2243	187	86	1 month
2025-09-01	Monday	Vegetables	16	32	13	988	123	28	7 days

*Fig 1. Category Sales for September 1*

Calculations done in Analysis:

#### **Revenue:**

Revenue for each category is computed based on the selling price and quantity sold.

$$\text{Revenue} = \text{Avg\_Quantity} \times \text{Avg\_Unit\_Price}$$

#### **Profit:**

Profit represents the surplus generated after deducting the category-specific purchase costs from total revenue.

$$\text{Profit} = \text{Total Revenue} - \text{Total Cost}$$

#### **Margin %:**

The profit margin percentage indicates the category's profitability relative to its selling price.

$$\text{Margin \%} = (\text{Profit} / \text{Revenue}) \times 100$$

### 2.2. Method for ABC Classification

An ABC classification was used to find out which product categories had the biggest impact on their total contribution to revenue

The steps followed were:

1. The total revenue per category was calculated using pivot tables
2. The categories were ordered from highest to lowest
3. Percentage contribution for each category was calculated
4. Cumulative percentage was used to set ABC boundaries
5. Categories were grouped into
  - A(high impact):Roughly 80% of the revenue
  - B(medium impact:The next 15% of the revenue
  - C(low impact):The last 5% of the revenue

The formulas used for this calculation were:

$\% \text{ Contribution} = (\text{Category Revenue} / \text{Total Revenue})$

$\text{Cumulative \%} = \text{Running total of \% Contribution}$

ABC Classification = Based on 80–15–5 rule

A	B	C	D	E	F
Category	SUM of Total_Revenue	Percentage of Total_Revenue	Cumulative Perc	ABC Classificatio	ABC Helper
Dairy	245509	38.13%	38.13%	A	0
Staples	156711	24.34%	62.47%	A	0
Vegetables	74277	11.54%	74.00%	A	0
Bakery	58105	9.02%	83.03%	B	0
Snacks	36686	5.70%	88.73%	B	0
Household	28429	4.42%	93.14%	B	0
Personal Care	19535	3.03%	96.17%	C	0
Other	10179	1.58%	97.76%	C	0
Beverages	8888	1.38%	99.14%	C	0
Masala	3913	0.61%	99.74%	C	0
Dry Fruits	1651	0.26%	100.00%	C	0
	0	0			
Grand Total	643883	100.00%			

Fig 2. ABC classification table

The Purpose of ABC Analysis is to:

- Recognize categories that generate the most revenue
- Ensure the availability of A, category products
- Inventory planning with B, category items
- Decrease investment in C, category to prevent excessive stock

### 2.3 Method for Expiry and Wastage Analysis:

Most of the products in the kirana store have a short shelf life(Dairy,bread).To quantify risk and potential financial loss:

Steps followed would be:

1. Average expiry days were assigned to each category
2. Daily sales velocity was compared with expiry duration
3. Slow moving short expiry products were identified
4. Wastage percentage was calculated using the following formula:
  - $\text{Wastage\%} = (\text{Unsold quantity} / \text{purchase quantity}) * 100$

A	B	C	D	E
Category	AVERAGE of Exp	AVERAGE of Unsold_Quantity	AVERAGE of Purchased_Quantity	AVERAGE of Wastage Percenta
Bakery	1	1.96969697	15.93939394	12.04%
Beverages	10	0.3492063492	3.476190476	8.47%
Dairy	2	1.151515152	10.6969697	10.92%
Dry Fruits	30	0	1	0.00%
Household	365	0.625	5.296875	11.06%
Masala	30	0	1	0.00%
Other	0	0.5245901639	4.295081967	10.37%
Personal Care	180	0.2545454545	2.472727273	7.88%
Snacks	30	0.6363636364	5.075757576	12.48%
Staples	30	0.5454545455	4.621212121	11.29%
Vegetables	7	2.439393939	22.01515152	11.08%
<b>Grand Total</b>	<b>63.89507154</b>	<b>0.8791732909</b>	<b>7.731319555</b>	<b>9.73%</b>

*Fig 3 Waste Percentage table*

Purpose:

- Recognize categories leading to the most significant loss
- Stop over purchasing
- Enhance demand forecasting

#### 2.4. Method for Credit Analysis

The store holds credit accounts for a number of flats in the residential area. In order to get to get the grasp on the repayment behaviour and the outstanding exposure:

##### **1. Flat-wise Credit Summary:**

**From the credit dataset:**

- Total credit issues
- Total repaid
- Outstanding amount

##### **2. Credit Risk Scoring:**

A scoring model was created using:

- Outstanding balance size
- Repayment frequency
- Monthly credit utilisation

##### **3. Interest Cost Estimation**

Delayed repayment keeps the money that could be used elsewhere. The assumed monthly cost or opportunity loss was applied:

Interest Cost = Credit Amount  $\times$  Rate (3-4%)

#### **Purpose of Credit Analysis**

- Identify high-risk households
- Implement credit limits

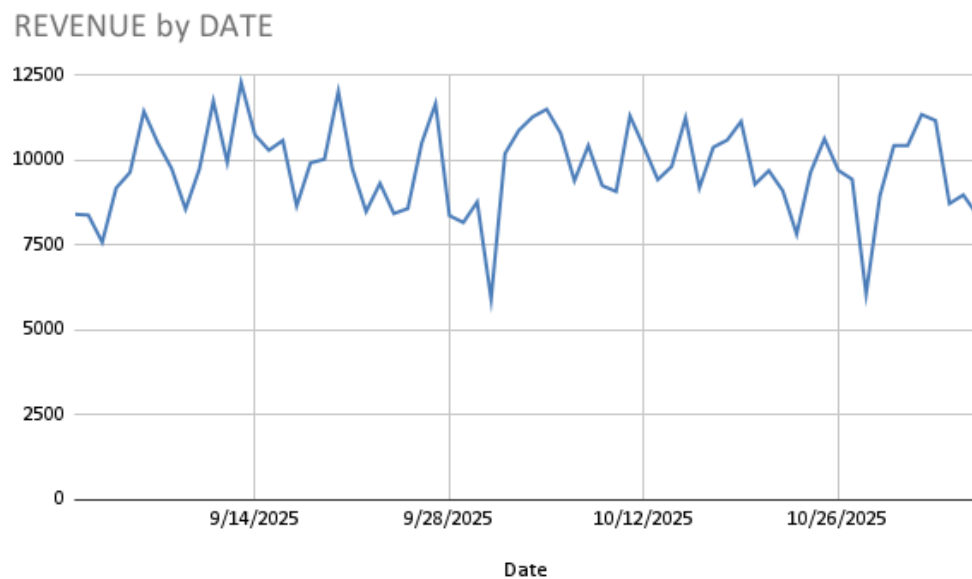
- Improve cash flow
- Reduce default risk

### 3 Results and Findings

#### 3.1. Sales & Financial Overview

This section shows the complete overview of everyday sales patterns, how the business makes money remain stable, changes in costs, and the profit of the local grocery store business.

The information presented in this part is useful for assessing financial consistency and providing guidance for pricing, stocking, and cost management decisions.



*Fig 4. Daily Revenue chart*

The daily income scheme reveals a stable trend for most of the days from September to November 2025 and, the fluctuations are because of the customer footfall and category-wise demand. Most of the revenue figures lie within the ₹3,000–₹4,000 bracket, meaning that the store is able to generate almost the same amount of money on a daily basis.

Key points:

#### 1. Daily Revenue Pattern

The revenue trend depicts a uniform and stable pattern all through the 66 days and most of the daily values are falling in between ₹9,000 and ₹11,500. Such a scenario speaks of a store that keeps customer demand at a steady level and sales volume at a predictable one.

#### 2. Revenue Peaks

The highest revenue climbs up to ₹12,292 and can be seen as peaks in the chart at around:



- Mid September
- Early October
- End of October

These peaks signify:

- High weekend or festival demand
- Strong sales in high value categories (e.g., dairy, vegetables, bakery)

### 3. Revenue Dips

There are a few very conspicuous drops that are close to ₹6,000 (the minimum), and typically happen around:

- Late September
- Late October

Such dips may be the following causes:

- Lower weekday footfall
- Temporary stock shortages
- Reduced sales in dominant categories

### 4. Stability & Variability

Mean Revenue: ₹9,755.80

Standard Deviation: ₹1,288.47

The given SD reflects that there is a moderate variability, which means that revenue varies but remains within a certain range. Also, the very fact that there are no long sequences of downward trend indicates that the business is not going through a slump.

### 5. What This Means for the Business

The stable daily revenue is a good support for reliable inventory planning and cash flow management.

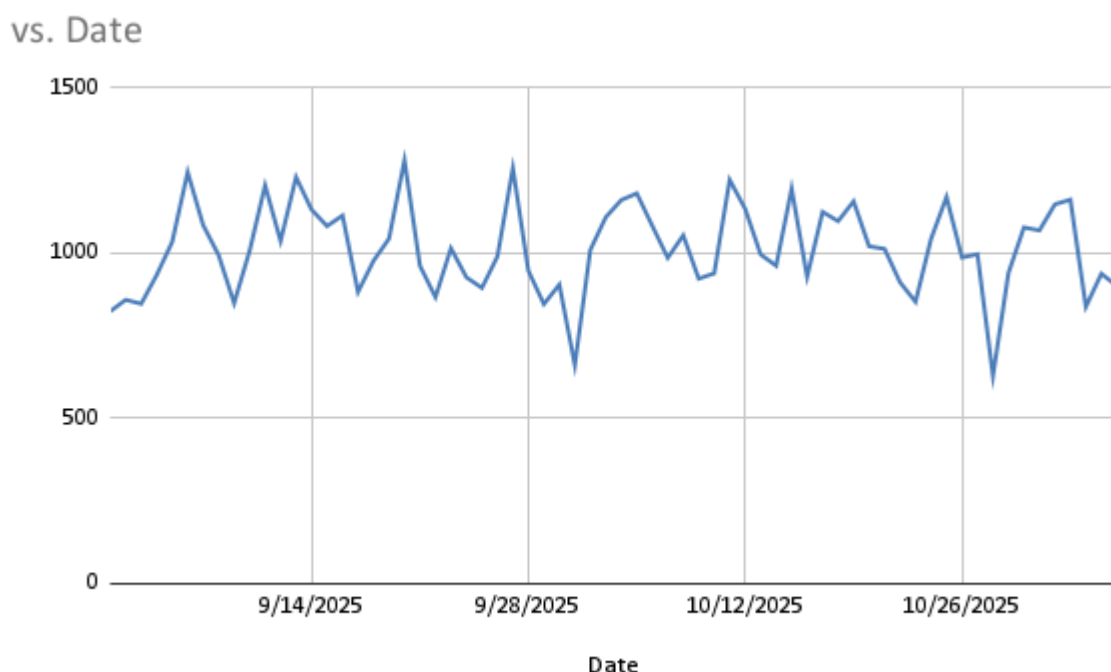
Peaks indicate that there is a great potential of high earning during certain periods → thus, there is a possibility to increase stock and workforce.

Dips point to the existence of some areas where it is possible to make improvements → thus, preventing the occurrence of stockout situations and enhancing weekday promotions.

The daily revenue pattern, in general, reflects that the shop has a solid and consistent customer base.

### 3.2. Daily Profit Trend — Interpretation

The daily profit trend displays the amount of money the store makes after the expenses of category-wise purchases have been deducted from each day. The profit chart, on the other hand, shows that there were more significant fluctuations, although the revenue pattern remained quite stable. This is typical of businesses that have a large assortment of products with different margins and whose demand varies from day to day.



*Fig 5. Daily Profit Trend*

#### Daily Profit Descriptive Statistics – Interpretation

Several important statistical measures were derived from the daily profits over the analysis period to grasp the stability, variability, and distribution of the profits. The findings are:

- Mean Daily Profit: ₹1,013.61

The mean daily profit comes out to be close to ₹1,013.61. This level of income is what one can expect on most days and is the measure of central tendency around which the business revolves. A mean just over ₹1,000 indicates that the business has been profitable in a consistent manner over the whole period under review.

- Median Daily Profit: ₹1,008.50

The median daily profit value is ₹1,008.50, which lies very close to the mean. This means that a balanced profit distribution can be inferred and the influence of extreme highs or lows upon the central tendency is negligible. Median  $\approx$  Mean  $\rightarrow$  Profits are stable with no significant distortions.

- Mode Daily Profit: ₹962

The daily profit mode is ₹962. The implications are that numerous days have seen profits around this level in which case the operating profit range of the store is most likely between ₹950 and ₹1000.

- Standard Deviation (SD): ₹135.34

The standard deviation of ₹135.34 reflects the existence of moderate fluctuations in the daily profits. So, most of the days, the profit differ from the average by around ₹130. This is quite normal in a retail business that is influenced by the number of customers, the demand for products, and the movement of stock, all on a daily basis.

- Variance: 18,318.15

Variance is a measure that describes how far the profits are from the mean over a period of time. A variance figure of 18,318 demonstrates that the profit numbers do not swing widely, thus the result that business performance is relatively stable with small predictable fluctuations is supported.

- Skewness: -0.2699

The slight negative skewness suggests that distribution is characterized by a small tail to the left (a few low-profit days). Nevertheless, the skewness value is fairly close to zero (-0.26), which means that the profit distribution is almost symmetrical. So, there is a good balance between the number of high and low-profit days.

- Kurtosis: 0.2061

The proximity of the kurtosis figure to 0 is the indication that the distribution is nearly normal. This means moderate peaks and tails which also suggests that no extreme profit outliers exist. The majority of profit figures fall near the mean with the expected variation.

- Minimum Profit: ₹629

- Maximum Profit: ₹1,281

- Range: ₹652

The range between the highest and lowest profits is ₹652. This is actually the typical variation within normal business operations, most probably, the causes of the variations here are:

- traffic of customers,
- availability of products,
- day-of-week behaviour (weekends vs weekdays),
- high-demand vs low-demand product cycles.

Both extremes are located at a fair distance from the mean, thus, confirming stability again.

- Total Profit For the Period: ₹66,898

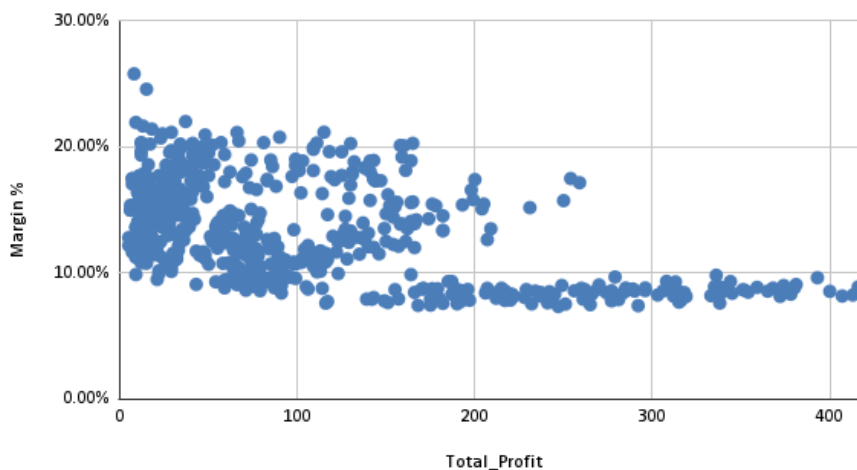
This is the total revenue or earnings that have been generated through the daily operations for the 66 days that have been recorded.

- Count of Observations: 66 Days

The data set consists of 66 days for which daily profits were validly entered. Such a sample size is quite large enough to give reliable and statistically significant insights.

### 3.3 Profit–Margin Analysis

Margin % vs. Total\_Profit

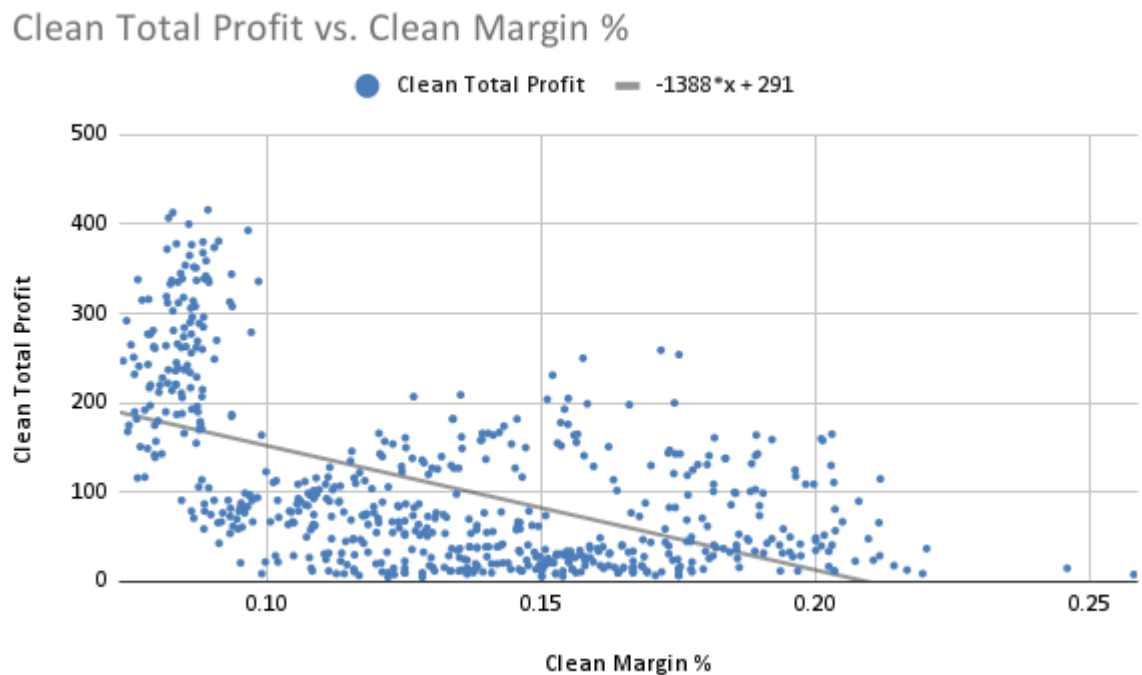


*Fig 6. Profit vs Margin % Trends*

The scatter plot depicts a moderately positive association which means that with an increase in margin percentage, the total profit is likely to go up as well. Though, the relationship is not a perfect one. The data points rather separate into two distinct groups:

- A tightly packed cluster around 10%–14% margin having a large range of profit values (50–300). These are the everyday items like Dairy, Staples, and Beverages whose margin percentages are low but sales volumes are high.
- A high-margin cluster around 18%–22% with relatively lower profit values. These are low-volume, high-margin categories such as Personal Care, Bakery, and Snacks.

The pattern here is that profits come mostly not only from high margins but also from those categories that have a consistently high sales volume. The upward spread shows that increasing the margin percentage usually leads to better profit results, but the effect is stronger when there are high-demand items. In general, the trend is pricing strategy and product mix that together determine profitability.



*Fig 7. Clean Total Profit vs Clean Margin%*

#### Interpretation of the Profit–Margin Relationship

The regression line shows a moderately strong negative relationship margin percentage and profit generation.

This is evidenced by:

1. Negative slope (-1388.47)

Explanation: When the margin percentage goes up, the total profit is likely to go down.

2. Correlation  $\sim -0.55$

Pointing to a moderately strong negative relationship.

Reason for this?

In the kirana store, the categories with higher margins (e.g. Snacks, Personal Care) generally have:

- low daily sales quantities
- niche or occasional demand

- higher prices but low rotation

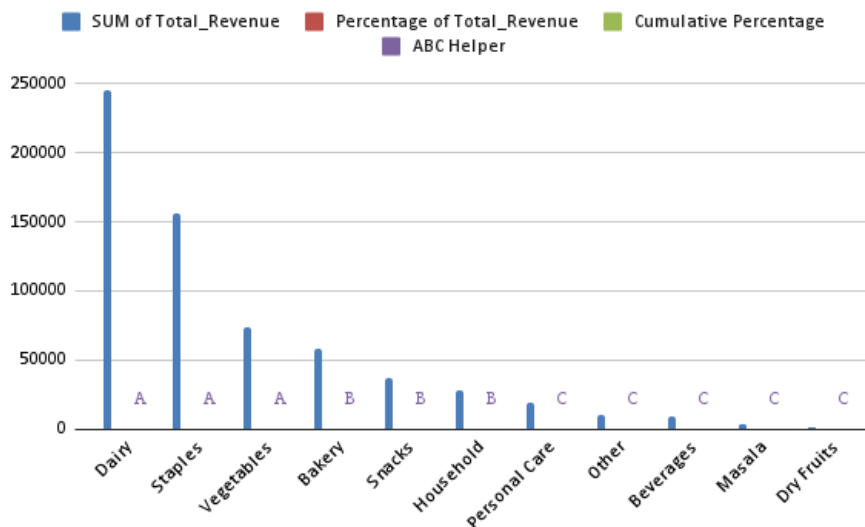
So, even if their percentage margin is high, their total profit contribution is still low.

Meanwhile, the categories with lower margins (Dairy, Vegetables, Bakery):

- sell in very high quantities
- have a stable daily demand
- have a fast inventory turnover

Therefore, they make significantly higher profits, despite smaller margins.

### 3.4 – ABC Analysis Results:



*Fig 8.ABC Analysis Graph*

The ABC classification has been performed to understand which product categories are the main contributors to the Shree Samarth Food Mall's total revenue. By using category-wise revenue, percentage contribution, and cumulative percentage, the products were classified into A, B, and C classes based on the 80-15-5 rule. Figure 2 presents a detailed ABC table, and Figure 3 illustrates the ABC classification chart.

#### Key Findings from the ABC Classification

The study reveals that three categories, namely Dairy, Staples, and Vegetables, belong to the A-category, and their contribution to the total revenue is close to 74%. The contribution of the Dairy sector is as high as 38.13%, whereas Staples and Vegetables contribute 24.34% and 11.54%, respectively. These categories are the main revenue generators, and thus, they have to be prioritized in procurement decisions, inventory planning, and space allocation.

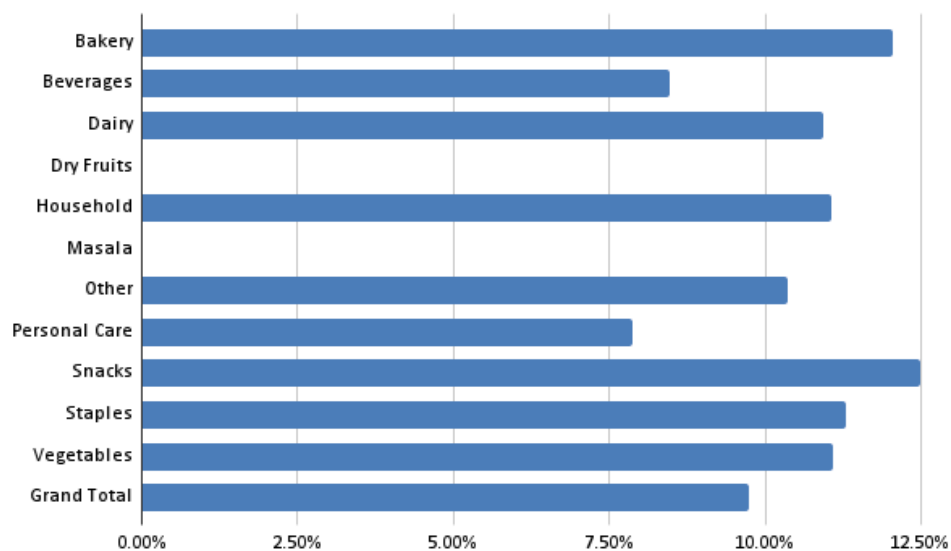
The B-category items, such as Bakery, Snacks, and Household products, jointly make up around 17% of the total revenue. These categories are of medium importance and show consistent and stable demand.

The C-category products, i.e., Personal Care, Other, Beverages, Masala, and Dry Fruits, account for the remaining 9% of revenue. These are the categories that have the least impact on the overall sales volume and contribute very little to it.

### Reason Behind the Observation

The reason why A-category items show the most significant contribution is that they are the basic daily necessities such as milk, staples, and vegetables which are frequently purchased. The B-category products indicate a moderate demand, and they are purchased regularly, but not as frequently as A-items. C-category products normally have a niche demand, move slowly, and have lower purchase frequency, thus, they generate a smaller share of the total revenue.

## 3.5 Expiry & Wastage Findings



*Fig 9.Expiry and wastage by category*

The bar chart presents the average wastage percentages of various product categories at a kirana store. Wastage has been calculated from the stock that was not sold relative to the quantity purchased.

### Key Observations

Categories with the highest wastage: Snacks, Bakery, Staples

Categories with wastage close to zero: Personal Care, Dry Fruits, Masala

### Reason Behind High Wastage

- Short expiry duration (e.g. Dairy with 1–2 days, Bakery with 1 day)

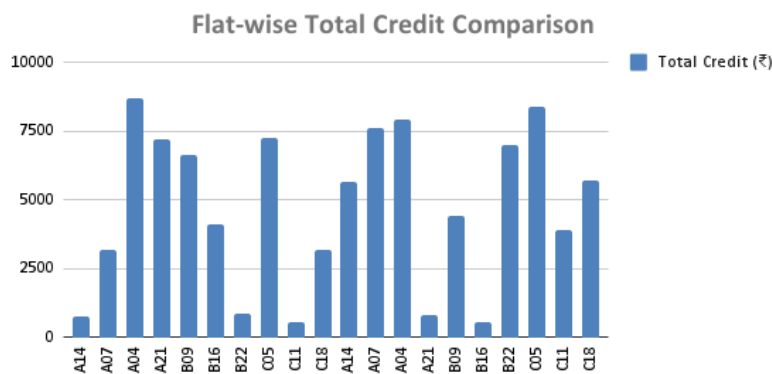
- Purchasing excessively compared to the actual demand
- Low sales velocity vs. the expiry period
- Overestimation of customer demand

### 3.6 Credit Analysis:

Credit sales largely make up the store's operations and knowing the level of credit behavior of households is the key when it comes to controlling the cash flow, reducing the default risk, and maximizing the profit.

Flat-wise Total Credit Summary: This graph displays the comparison of total credit the households have taken.

Essential Discoveries: Households like A07, C05, C11, B09, and B22 have done the most credit transactions differently than the rest. These customers are the store's largest credit exposure. Many households such as A04, B16, and C18 are showing low credit usage.



*Fig 11.Flat-wise Credit Comparison*

The analysis here tries to find out whether most of the credit to the store comes from a small number of households.

Major Findings: Almost 60–70% of the total credit is with just the first 3–4 households. When we get to about 10 families, the cumulative credit goes above 95%.

### Reason Behind the Observation

The store has a very uneven distribution of credit, where a few flats take a very large amount while most others take a small amount. This is a typical "80/20 rule" pattern - 20% of customers are responsible for 80% of the credit.

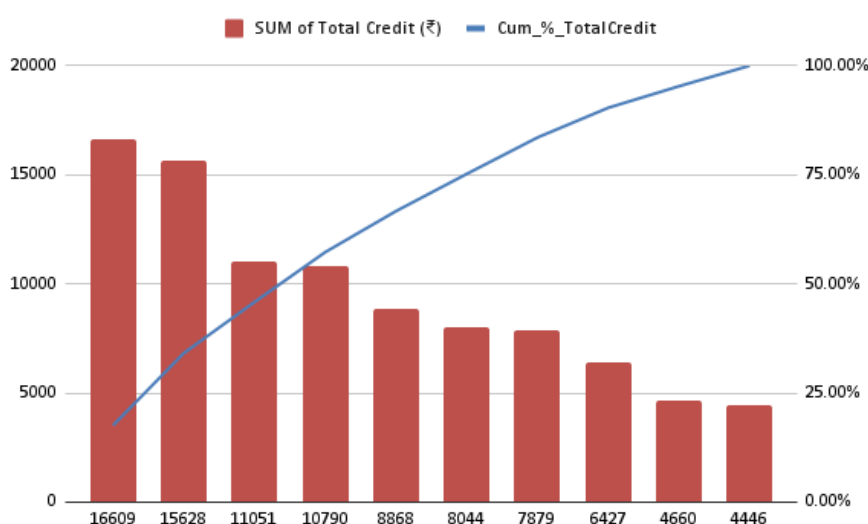


House	SUM of Outstanding (₹)	SUM of Total Credit (₹)	SUM of Total Repaid (₹)	Repayment %	Interest Cost	Outstanding Score	Repayment Behaviour Score
A04	3131	16609	13478	81.15%	664.36	2	2
C05	2330	15628	13298	85.09%	625.12	1	2
B09	2001	11051	9050	81.89%	442.04	1	2
A07	6199	10790	4591	42.55%	431.6	3	4
C18	2059	8868	6809	76.78%	354.72	1	2
A21	2276	8044	5768	71.71%	321.76	1	2
B22	968	7879	6911	87.71%	315.16	1	2
A14	5202	6427	1225	19.06%	257.08	3	5
B16	3874	4660	786	16.87%	186.4	2	5
C11	3056	4446	1390	31.26%	177.84	2	4

*Fig 11.Flat-wise Credit Performance Summary*

Repayment %	Interest Cost	Outstanding Score	Repayment Behaviour Score	Credit Utilisation Score	Total Risk Score	Risk Category	Cum_TotalCredit	Cum_%_TotalCredit
81.15%	664.36	2	2	2	3	7 Medium Risk	16609	17.59%
85.09%	625.12	1	2	2	3	6 Low Risk	32237	34.15%
81.89%	442.04	1	2	2	2	5 Low Risk	43288	45.85%
42.55%	431.6	3	4	2	2	9 High Risk	54078	57.28%
76.78%	354.72	1	2	2	2	5 Low Risk	62946	66.68%
71.71%	321.76	1	2	2	2	5 Low Risk	70990	75.20%
87.71%	315.16	1	2	2	2	5 Low Risk	78869	83.55%
19.06%	257.08	3	5	1	1	9 High Risk	85296	90.35%
16.87%	186.4	2	5	1	1	8 Medium Risk	89956	95.29%
31.26%	177.84	2	4	1	1	7 Medium Risk	94402	100.00%

*Fig 12.Household Credit Risk Scoring and Classification*



*Fig 13.Pareto Analysis of Credit Concentration*

## Repayment Behaviour and Interest Cost

From the flat-wise table:

Major Findings: Some households (e.g., A21, B22) have repayment percentages of more than 85%, thus demonstrating a responsible credit usage. On the contrary, households like A14, C11, and B16 have low repayment percentages, which indicates that their behavior is irregular. The increase in interest charges for the business is directly related to the increase in outstanding balances.

## Reason Behind the Observation

Interest is imposed on the basis of delayed payments; poor repayment leads to higher outstanding leads to higher interest, while good repayment leads to lower outstanding leads to minimal interest.

## 4 Interpretation of Results and Recommendations

### 4.1. Financial Overview of the Business

Metric	Value (₹)
Total Revenue (Sept–Nov)	₹6,43,883
Total Profit (Sept–Nov)	₹ 66,898
Average Daily Revenue	₹ 9,755.80
Average Daily Profit	₹ 1013.61
Minimum Daily Profit	₹ 629
Maximum Daily Profit	₹ 1,281
Total Cost (Revenue – Profit)	₹ 5,76,985

The business generated **₹6,43,883 in revenue** and **₹66,898 in profit** over the period, averaging **₹9,755.80 in daily revenue** and **₹1,013.61 in daily profit**, with profits ranging from **₹629 to ₹1,281**, resulting in a total operating cost of **₹5,76,985**.

### 4.2. Credit Overview of the Business

House	Total Credit (₹)	Total Repaid (₹)	Outstanding (₹)	Repayment %
A04	16,609	13,478	3,131	81.15%
C05	15,628	13,298	2,330	85.09%

<b>B09</b>	11,051	9,050	2,001	81.89%
<b>A07</b>	10,790	4,591	6,199	42.55%
<b>C18</b>	8,688	6,809	2,059	76.78%
<b>A21</b>	8,044	5,768	2,276	71.71%
<b>B22</b>	7,879	6,911	968	87.71%
<b>A14</b>	6,427	1,225	5,202	19.06%
<b>B16</b>	4,660	786	3,874	16.87%
<b>C11</b>	4,446	1,390	3,056	31.26%

Most of the business's credit exposure is primarily focused on a handful of households, which raises the risk of the occurrence of repayment delays. Repayment practice is very inconsistent, as some customers pay back more than 80%, while others only about 40%. Some flats have very high outstanding balances, which results in cash-flow problems and an increase in the financial cost. Interest cost is directly related to repayment delays, which leads to a decrease in net earnings for the business. The risk categorisation system efficiently identifies the customers who must be prioritized for reminders, follow-ups, or credit limits.

#### Recommendations

##### 1. Set Credit Limits Based on Risk Scores

- High-risk: Very strict limit or cash-only
- Medium-risk: Moderate monthly limit
- Low-risk: Keep up with the present limit

##### 2. Strengthen Repayment Follow-ups

- A07, A14, B16, and C11: Remind them weekly
- Early repayment incentive (₹50–₹100 discount)

##### 3. Reduce Outstanding Balances

- Mid-month partial payments collection
- Stop giving fresh credit to households with more than ₹4000 due

##### 4. Align Credit with Cash Flow

- High-sales days entail Limit outstanding
- Lower-sales days entail Encourage repayment

#### 4.3. Optimize Inventory Planning Using Turnover & Demand Patterns:

Refine purchasing decisions for each product category based on the inventory turnover rates used in the calculation. Vegetables, Bakery, and Dairy are examples of product categories that demonstrate the highest turnover and that should therefore be procured more frequently but in smaller quantities so as not to lose the freshness and at the same time not to face stockouts. This demand, driven purchasing diminishes the repacking of goods and guarantees the availability of high, demand items, leading to increased customer satisfaction and sales consistency. On the other hand, products with low turnover such as Masala, Dry Fruits, and Personal Care have to be managed more aggressively. Overstocking of these items will lead to slow, moving inventory that not only takes up shelf space but also binds working capital. By limiting the purchase of these categories, storage space requirements, expiry, related losses, and cash flow will be optimized. Also, weekly monitoring of turnover assists in identifying abrupt changes in demand and thus enables the company to react quickly during the holiday season, weather changes, or supply interruptions.

#### 4.4. Strengthen Pricing Strategy Using Margin & Profitability Insights:

Adjust selling prices through the use of a dynamic pricing strategy based on item sensitivity, perishability, and market demand, that is consistent with the observed profit and margin patterns. Most of the high, demand items with stable turnover may tolerate slight price increments without lowering the sales volume. This increases the total profitability without notably influencing the customer purchasing behavior. On the other hand, products with low margins and high wastage should be subject to margin restructuring. A modest selling price change for a high, volume product like a vegetable (e.g., tomatoes, onions) can result in a significant daily profit increase simply because of the frequent movement of these products. One more, bundle, based pricing (e.g., mixed vegetable packs, combo offers) may accelerate the disappearance of slow, moving or near, expiry products, thus lowering wastage while at the same time safeguarding the profit margins. Consistent item, level monthly profitability check guarantees that price adjustments are in line with cost changes, market competition, and customer sensitivity.

#### 4.5. Reduce Wastage Through Operational Controls and Forecasting:

Put into practice a forecasting system that depends on daily sales data to predict demand more accurately for each category. By carefully examining the variations between weekdays, weekends, and festival days, the business will be able to adjust order quantities in such a way that overstocking is avoided. Set up an expiry, based shelf reorganization where short, life products such as bakery goods and certain types of vegetables are put in the most visible places so that they can be sold quickly. Products that are close to their expiration date may be sold through time, bound discount offers or packed with fast, moving products so that the complete utilization is ensured. Furthermore, having just a small safety, stock reserve for only fast, moving products is a way of averting shortages while at the same time not increasing the risk of wastage. There can be a great reduction in the burden of carrying perishable stock if the coordination with suppliers is improved to allow more frequent but smaller deliveries.

#### 4.6. Improve Cash Flow Through Smarter Credit Allocation:

Use differences in repayment rates and outstanding balances to differentiate credit limits for households. Customers who are always good at loan repayment should be granted better credit terms, while those with unstable repayment pattern histories should be converted to cash, first or low, credit, limit transactions. Help transparency and lessen conflicts by having monthly credit statements. This, in turn, fosters accountability and makes customers conscious of their repayment periods. Moreover, handling of small overdue amounts quickly keeps them from turning into bigger risks, thus, saving working capital that is necessary for daily purchasing and stocking. Strict monitoring of high, risk households, thus, leads to fewer late repayments, which in turn lowers the risk of the business not being able to restock essential goods on time.

## **5 Additional:**

LINK-[GOOGLE DRIVE](#)