

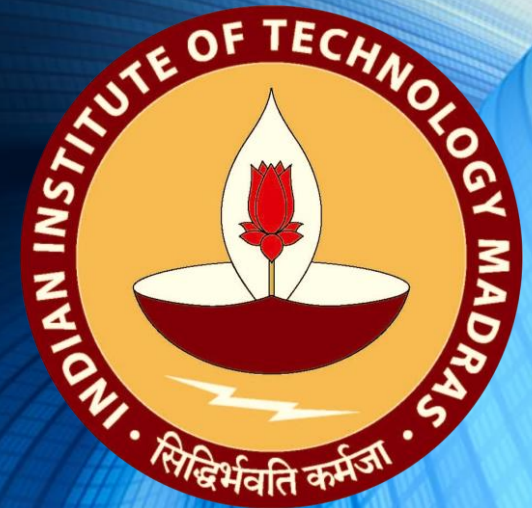
ANALYSIS OF SHIVANI NAMKEEN PRODUCTS' BUSINESS CHALLENGES AND SOLUTIONS

As part of

BUSINESS DATA MANAGEMENT
CAPSTONE PROJECT

INDIAN INSTITUTE OF TECHNOLOGY,
MADRAS

BY: PRATHAM BHALLA



About the Business

- **Business Name:** Shivani Namkeen Products
- **Industry:** Food Manufacturing
- **Overview:** Namkeen and snacks manufacturer known for authentic flavors and premium quality.
- **Vision:** To be the preferred choice for traditional and innovative namkeens, creating delightful moments.
- **Mission:** Maintaining the highest standards of quality, hygiene, and taste while innovating for customer satisfaction.
- **Core Values:** Integrity, customer satisfaction, and continuous improvement.



Problem Statement

➤Tough Competition:

- *Stiff competition from local namkeen brands like Meerut Namkeen Bhandar, Jain Namkeen, etc.*
- *Challenge in retaining and expanding market share.*

➤Demand Forecasting:

- *Surge in demand during festival seasons.*
- *Struggle to accurately estimate required quantity on time, leading to potential loss of sales opportunities.*

➤Pricing Strategy:

- *Engages in pricing wars with competitors.*
- *Difficulty in increasing product prices while maintaining competitive pricing and ensuring profitability.*



Problem Statement

➤ Limited Sales Channels:

- Heavy reliance on single sales channels like wholesalers or retailers.
- Restriction in growth potential, requires exploring and adopting additional distribution channels.

➤ Fluctuating Raw Material Prices:

- Challenges in maintaining consistent product pricing and quantity.
- Impact on profit margins and overall production stability.



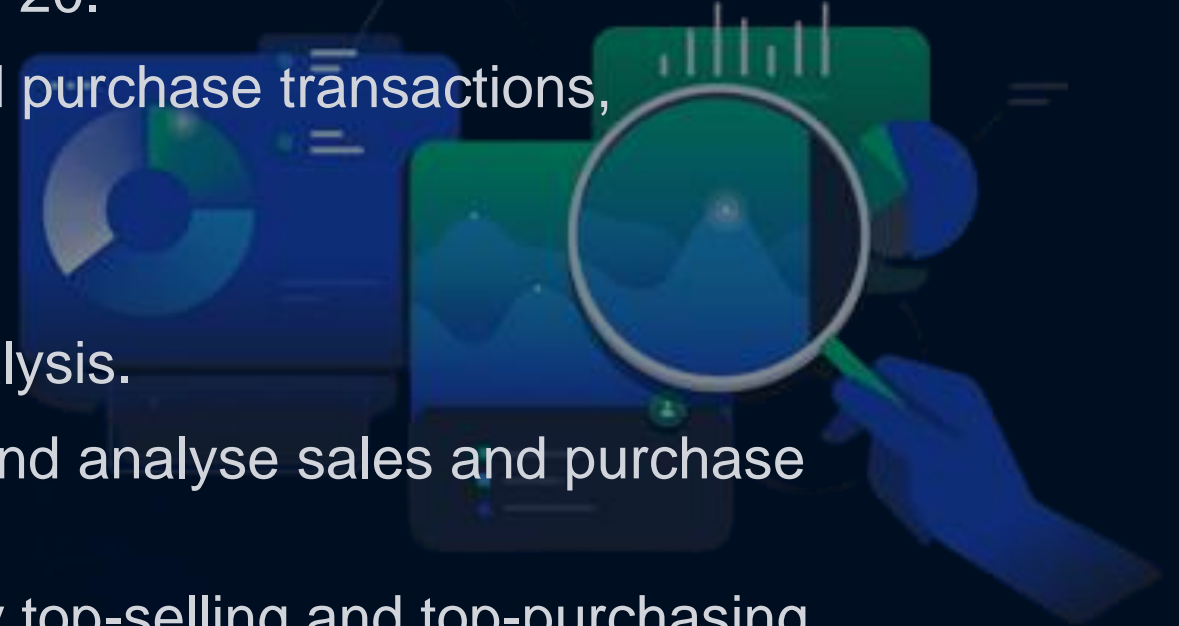
Data and Approach

➤ Data Overview:

- Financial and sales data from Shivani Namkeen Products for the financial years 2018-19 and 2019-20.
- Includes information on sales and purchase transactions, revenue, and expenses.

➤ Tools and Techniques:

- Microsoft Excel used for data analysis.
- Pivot tables used to summarize and analyse sales and purchase data.
- Pareto analysis applied to identify top-selling and top-purchasing months.
- Excel formulas used to calculate descriptive statistics and trends.



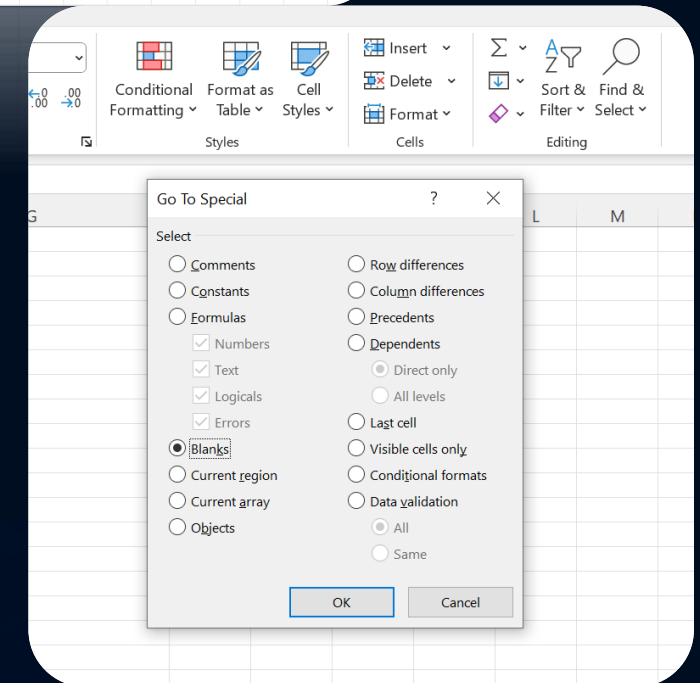
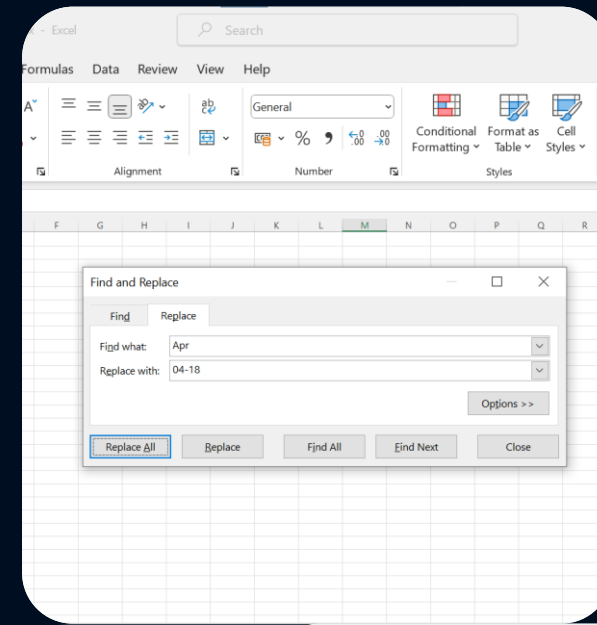
Data Extraction and Preparation

➤ Data Extraction:

- Data extracted from Tally ERP 9.
- Financial data exported from the reports section (e.g., balance sheet, profit and loss account, stock summary).
- Sales and purchase registers exported from the display menu in the account books section.

➤ Data Cleaning and Formatting:

- Date format converted from Tally (e.g., 1-Apr) to Excel date format (e.g., 01-04-2018).
- Blank cells in sales and purchase registers filled with zero for data consistency.
- Data type of the amount column changed to number type for analysis.

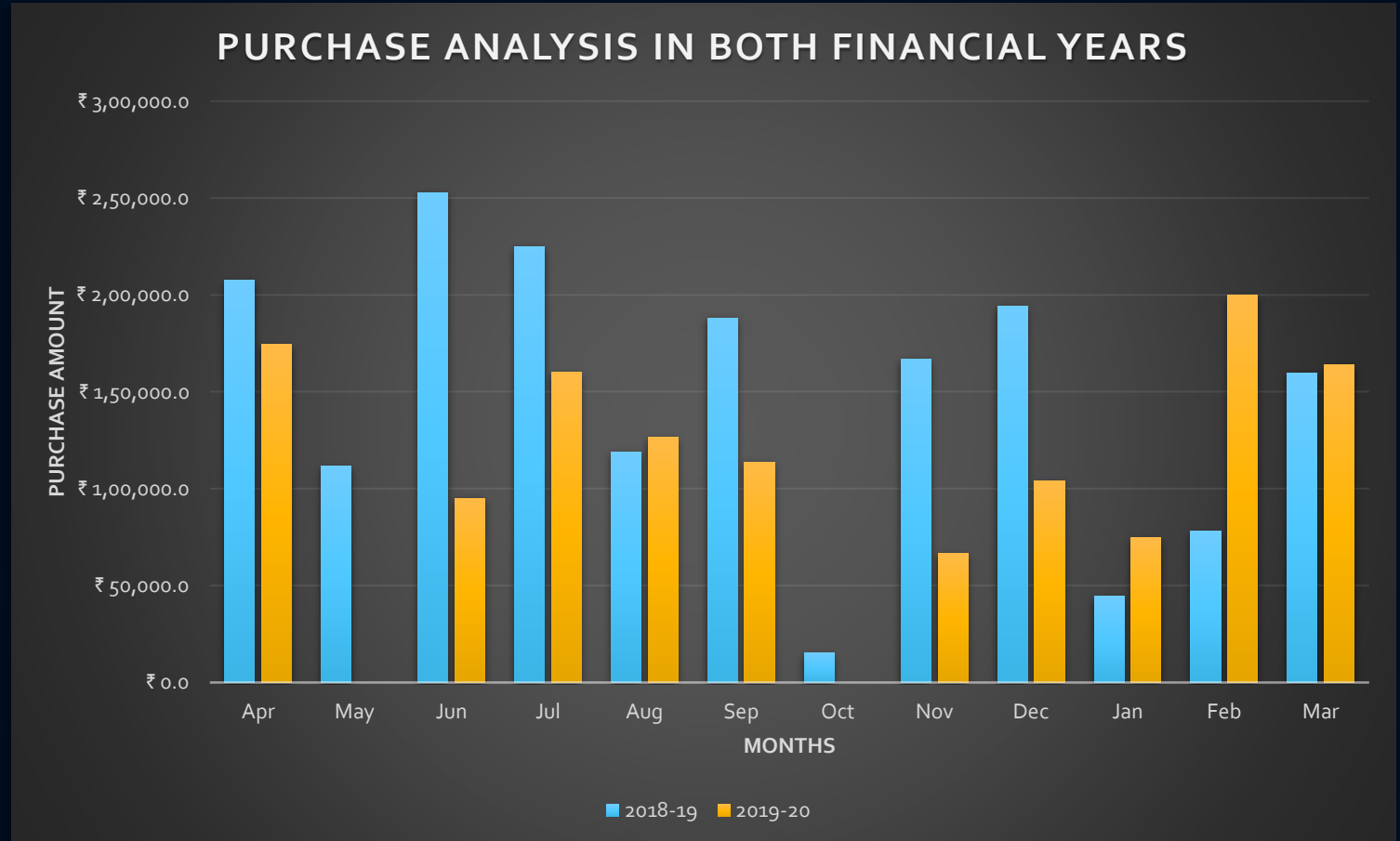


Results and Findings

➤ Some key observations:

- ❖ **May and October 2019:** The purchase amounts for these months are recorded as zero, indicating no purchases during these periods.
- ❖ **June 2019:** A significant drop in purchase amounts compared to June 2018.
- ❖ **February 2020:** A notable increase in the purchase amount compared to the previous year.

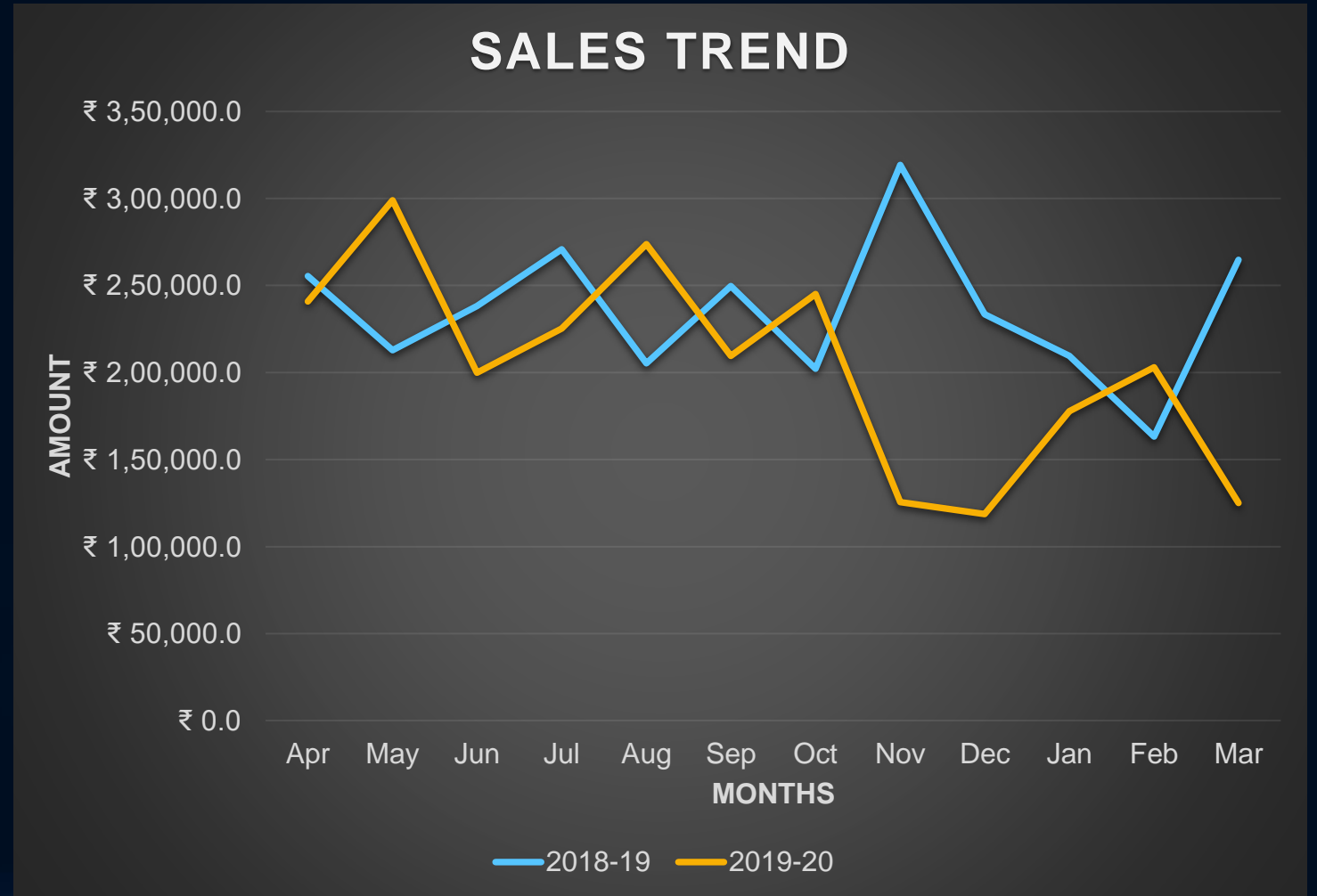
- The analysis reveals seasonality in purchase behavior, which requires further exploration for better inventory and resource planning.



The chart illustrates the monthly purchase amounts for both years, highlighting the trends and patterns in purchasing behavior.

Results and Findings

- **Some key observations:**
 - ❖ **November and December 2019:** A significant drop in sales compared to the same months in 2018.
 - ❖ **May 2019:** An increase in sales compared to May 2018.
 - ❖ **February 2020:** A notable increase in sales compared to the previous year.
- The analysis reveals fluctuations in sales across different months, highlighting the need for further investigation into the underlying factors affecting sales trends.



The line chart showcases the monthly sales amounts for both years, providing insights into the sales performance over time.

Interpretation of Results

➤ Purchase Analysis:

- Fluctuations in purchase amounts across different months were observed.
- Low purchase amounts in October 2019 and May 2019 may be attributed to supply chain disruptions.
- Higher purchases in February 2019 and 2020 could be due to inventory restocking.

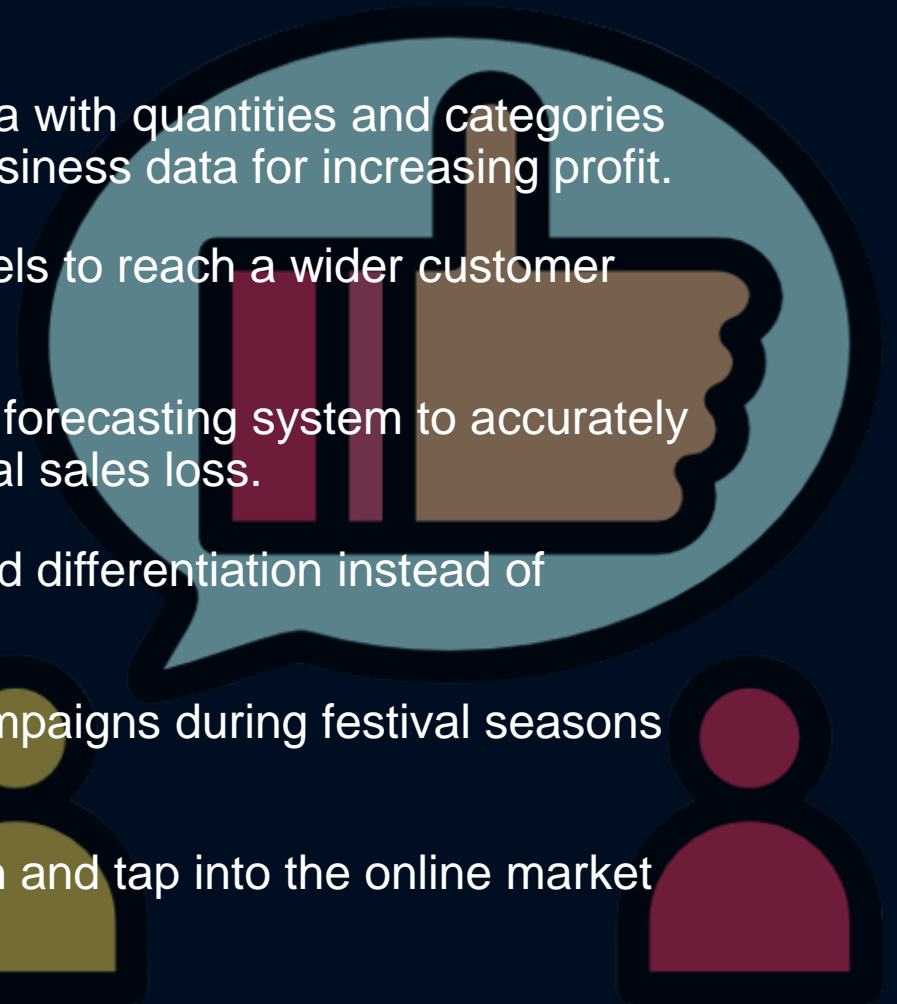
➤ Sales Trends:

- In 2018-19, sales surged during November and December, coinciding with the festive season and Diwali celebrations.
- In 2019-20, sales in the same months decreased, despite the festival season.
- The earlier Diwali in 2019 (27th October) compared to 2018 (7th November) might have impacted consumer behavior and buying patterns, contributing to the difference in sales trends.



Recommendations

1. **Additional Data Collection:** The business should collect the data with quantities and categories of items being sold to have a better estimation and analysis of business data for increasing profit.
2. **Diversify Sales Channels:** Explore additional distribution channels to reach a wider customer base and reduce dependency on a single source.
3. **Improve Demand Forecasting:** Implement an effective demand forecasting system to accurately estimate product quantity during peak seasons and avoid potential sales loss.
4. **Competitive Pricing Strategy:** Focus on value-based pricing and differentiation instead of pricing wars to maintain profitability and competitiveness.
5. **Strategic Marketing Initiatives:** Develop targeted marketing campaigns during festival seasons to capitalize on increased demand and boost sales.
6. **Online Selling:** Embrace e-commerce platforms to expand reach and tap into the online market for increased sales.
7. **Inventory Management:** Optimize inventory practices to mitigate the impact of fluctuating raw material prices.



Thank You...