Assignment for Business Analyst Intern @Jar

1. Sales Analysis

NOTE: The entire analysis is done using python.

Link for jupyter file: https://github.com/Revanthcsv/Portifolio-Projects/blob/main/Jar-assignment.ipynb

Part 1: Sales and Profitability Analysis

- **Total Sales by Category :**
    - **Furniture:** ₹127181.0
    - **Clothing:** ₹139054.0
    - **Electronics:** ₹165267.0
- **Average Profit per Order:**
    - **Electronics:** ₹51.441176 per order
    - **Clothing:** ₹28.404580 per order
    - **Furniture:** ₹12.354839 per order
- **Profit Margin (%):**
    - **Electronics:** 6.349725%
    - **Furniture:** 1.806874%
   - **Clothing:** 8.027817%

Insights:

- The category with the best performance is electronics. Despite having a slightly lower profit margin (6.35%) than Clothing, it has the highest average profit per order (₹51.44) and the largest total sales (₹165,267). This suggests efficient pricing and strong customer demand, as evidenced by the high sales volume and profitability per transaction.
- The category with the lowest performance seems to be furniture. It has the lowest average profit per order (₹12.35), the lowest profit margin (1.81%), and the lowest total sales (₹127,181). These numbers could indicate reduced market demand, more expensive expenses, or less competitive pricing, all of which have an effect on the company's overall performance.
- Clothing has a high profit margin (8.03%), meaning that they are more profitable as a percentage of sales. Its lower average profit per order (₹28.40) and total sales (₹139,054) as compared to Electronics, however, imply that, despite its efficiency, it might be seeing a decline in sales quantities.

Possible Reasons for Performance Differences:

- **Electronics:** strong market demand including premium goods, competitive pricing might be driving both sales and profit per order.

- **Furniture:** May be facing challenges such as high production or procurement costs, less competitive pricing, or weaker consumer interest, resulting in lower sales and profitability.
- **Clothing:** Despite high profit margins, lower overall sales and profit per order could indicate a niche market or pricing strategies that limit volume. This suggests that there might be an opportunity to boost sales volume without compromising on the margin.

Part 2: Target Achievement Analysis
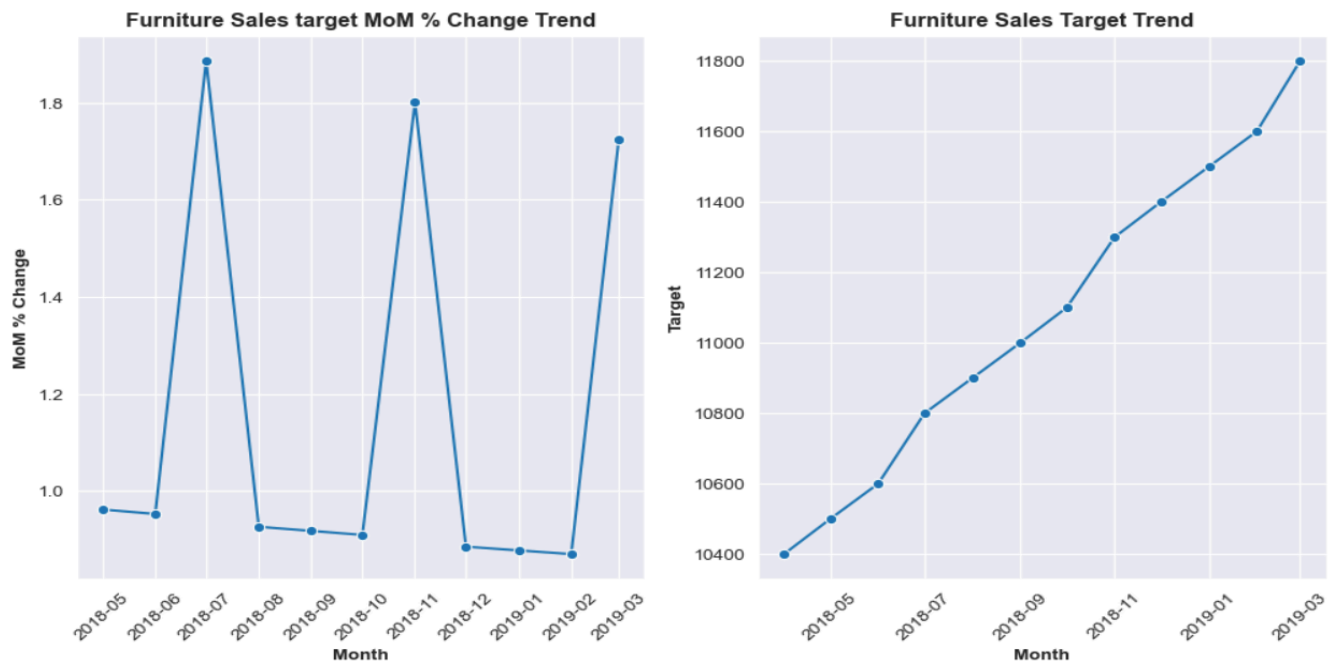
Insights:

- From the graphs we can see that the majority of months exhibit a relatively modest increase, typically between 0.87% and 0.96%.Significant fluctuations are observed in July-18 (1.89%), November-18 (1.80%), and March-19 (1.72%). These months show noticeably higher target increases compared to other months.

Strategies for Aligning Target Expectations with Actual Performance:

- Make use of predictive analytics and historical sales data to establish goals that accurately reflect expected market performance while taking seasonal fluctuations into consideration.
- By including seasonal considerations in target-setting procedures, you may identify and prepare for seasonal variations. like modify goals if performance is often better in July.
- Establish a system of ongoing monitoring that contrasts targets and actual sales. In the event that performance falls short of expectations, this enables prompt modifications.

Part 3: Regional Performance Insights

   Top 5 States by Order Count :

- **Madhya Pradesh:** 101 orders
- **Maharashtra:** 90 orders
- **Rajasthan:** 32 orders
- **Gujarat:** 27 orders
- **Punjab:** 25 orders

   Regional Sales & Profit:

- **Madhya Pradesh:** Total Sales: ₹105140.0, Avg. Profit: ₹54.960396 per order
- **Maharashtra:** Total Sales: ₹95348.0, Avg. Profit: ₹68.622222 per order
- **Rajasthan:** Total Sales: ₹21149.0, Avg. Profit: ₹39.281250 per order
- **Gujarat:** Total Sales: ₹21058.0, Avg. Profit: ₹17.222222 per order
- **Punjab:** Total Sales: ₹16786.0, Avg. Profit: ₹-24.360000 per order

Insights:

- While Madhya Pradesh and Maharashtra lead in order count and total sales, the average profit in some top states (Punjab) is significantly lower.
- This disparity indicates that high sales volume does not always translate to better profitability and in the case of Punjab even though the order count is higher the regional doesn't have any profits.
- And also overall some states are acquiring negative profits which is a bad sign and in case of tamilnadu the loss per order is quite high it may be due to logistical difficulties or due to lower selling prices in that area

Recommendations:

- Investigate operational and pricing strategies in regions with lower average profits.
- Consider reallocating resources or focusing localized marketing strategies in regions with both high sales and high profit margins and maintaining basic required demand in low sales and low profit markets.

2. App Exploration:

Effective and User-Friendly Features:

1.Intuitive Navigation and Flow:
- The user journey is straightforward ,from onboarding to daily use ensuring that even new users can quickly learn how to use the app without a steep learning curve.

2."Spin to Win" Gamification:

- Adding interactive features like spin to win, Quest can make the user more involved with the app and also can encourage users to continue using the app on a daily basis.

3.Homepage UI:

- The design of the homepage is very attractive and at the same time it has all the things placed at the right place to make the user navigate through it easily. From live gold price at the top to quick action column and to the footer all the features and animations are perfectly differentiated from one another.
- Adding different feature with but basically similar functionality like quick save ,start today, save instantly can be overfitting but it can also make users to navigate in their own convenient may

4.Nek :

- To be able to integrate shopping features like nek into the same app without straying from the original objective of the app is quite effective.

5.Flexible Savings Goals :

- Allowing users to create custom goals and adjust savings frequency (daily/weekly/monthly) Provides control and visibility into progress, fostering discipline.

Five Areas for Improvement:

1.Developer Bugs :

- Even though the app has many animations it works seamlessly but may due to compatibility issues with older devices(android 11) the gold jewellery feature in quick actions navigates the user to the play store , which can be easily fixed by developers.

2.Advanced Reporting Features :

- While the basic insights are clear, adding more in-depth analysis (e.g., predictive trends, comparison with past months, or detailed transaction breakdowns) would benefit power users looking for a deeper understanding of their financial habits.

3.Profile page :

- The profile page is overfitted with many features of which most of them are already available in the homepage so instead adding reporting features to the profile page would be effective.

4.Widgets :

- Recently widgets are being introduced to almost every application so providing widgets to get daily gold updates and reports on the home screen of the mobile will be helpful for users to keep track of things within the app even when the notifications are off.

5.Predictive UI for Goal Tracking :

- The app has a saving calculator which is a good initiative but at the same time Implementing a predictive UI that recommends goal adjustments based on spending patterns can be beneficial to some users.

2. Product Exploration:

Business opportunities Jar could venture into:

1.API Integrations for seamless Ecosystem connectivity :

● By integrating APIs with popular e-commerce platforms, digital wallets, and even banks, Jar can offer seamless cross-platform experiences. For example, automatic round-up investments from every transaction made on partner platforms could drive higher engagement.

2.Diversification into Broader Financial Products:

● Introducing automated insurance plans (health, life, or gadget insurance) tailored to user savings habits. For example, users could allocate a portion of their daily savings toward insurance premiums.
● Expand into systematic investment plans (SIPs) for mutual funds, allowing users to diversify beyond gold.
● Jar could introduce other precious metals like silver or platinum, fractional shares of blue-chip stocks, and other investment strategies.

3.Expansion into Rural Markets:

● Partner with agritech platforms to offer gold-backed loans or savings plans tailored to farmers' seasonal income cycles.

4.Integration with E-Commerce Platforms:

● Allow users to redeem digital gold for discounts on platforms like Flipkart or Amazon, enhancing people coverage and multiusage.

5.Strengthening the Gold Ecosystem :

● expand Nek to offer customizable gold jewelry designs or gold coins for festivals/weddings.
● Allowing users to convert digital gold into physical jewelry seamlessly via the app and also enabling users to exchange old gold ornaments for digital gold credits making jar's digital gold a more powerful medium for many exchanges and transactions.