**Findings from the analysis:**

**Shelf life analysis by product category**

1)Overall 49.49% of all products expired on receipt ,indicating serious supply chain issues

2)Seafood is the worst affected category with 67.78%

3)Bakery has the lowest expired rate at 39.19% better shelf life compared to other category

4)High risk categories are seafood and beverages.

**Sales revenue by Category**

1)Fruits & Vegetables contribute 26.69% of total sales ,more than 1/4 of all revenue.

2)Bakery 5.33% and Oils & Fats 5.47% are the least performing categories in terms of revenue.

3)Selling ideas like pairing fruits with bakery items, vegetables with healthy oils can balance that.

4)We need to optimize inventory space based on high performing categories.

**Unit Price Distribution by Category**

1)Average unit price of Beverage is nearly 3x the base average. It contributes 20.77% of revenue, making it highly profitable per unit.This is premium pricing with good demand.

2)Dairy, Grains, Oils and Bakery are low to moderate price, moderate to low revenue, combined revenue share is approximately 34.66%.We need to use these categories to build customer loyalty through combo packs, discounts, or subscriptions.

**Inventory Risk Assessment by suppliers**

1)Using thresholds for stockout risk suppliers and automating stock monitoring is ideal.

2) We can find ideal suppliers based on review terms with underperforming ones,risk of expiry and build supplier optimization.

3)To Minimize expiry losses, we can rotate stock within suppliers.

**Top 5 Best selling Products:**

1)Arabica Coffee

2)White Tea

3)Halibut

4)Banana

5)Herbal Tea

Arabica Coffee is the top selling product

1)Suppliers like Rhyzio, Jayo, Yadel, Jet Pulse, and Youspan are ideal inventory.

2)Feedmix 1.64% has the highest expiry risk, followed by Zoozzy, Rhycero and Voonyx.

**Inventory performance overview**

1)Half of our inventory is performing well with consistent turnover.

2)Over 30% of our inventory is underperforming due to overstocking which is use to poor demand forecasting

3)Fast Moving Stock 18.99%,there is risk of stockouts or missed sales

4)We need to reduce the investment in slow movers to free up capital

5)We need to have reviews on a periodic basis for stocks to identify slow movers,fast movers because it may vary seasonally.

**Inventory Risk Assessment Summary**

1)The largest portion of inventory falls into the Ideal category 40.1% of total which is good.

2)However, risk of expiry is 31% and watch for stock outs is 28.9%, a significant portion of the inventory is in issues.

3)We need to focus on the risk of expiry items by considering promotions to move these stocks quickly.

4)A majority of our inventory 64.75% was in loss which is concerning. Nearly two thirds of our inventory 35.25% is only in an "Ok" state.

**Recommendations:**

1)We need to strengthen supplier relationships with ideal inventory and high performing suppliers.

2)We need to build forecasting models to align purchase planning with shelf life and demand.

3)We need to adopt a dynamic pricing strategy to avoid high risk inventory.