# Weekly Sales Report: Week Ending [20 August 2021]

## Summary:

This report covers the weekly performance of the five stores. Insights and analysis here include Comparative Sales (Revenue) for each store, Top Five Products for the store with the highest Sales, Bottom Five Products for the store with the highest Sales, Comparative Gross Profit for each store and Biggest Trenders across all stores.

## Business Understanding:

The goal is to understand sales trends across the stores and products, comparing sales for each store, identifying top five products for the store with the highest sales, identifying bottom five products for the store with the highest sales, comparing the gross profit for each store and finding the biggest trending product. The insights and analysis will be used to make informed business decisions.

## Data Understanding and Preparation:

A dataset of 2500 transactions across all five stores, captured over seven days, was generated using Generative AI and analysed using RapidMiner. Data fields included Transaction ID, Store Location, Date, Time, Customer ID, Product ID, Product Name, Quantity, Cost, and Price.

## Insights and Modelling:

* **Comparative Sales (Revenue) for each store:** Store 5 topped the chart with a weekly revenue of $182,392.64, while Store 3 had the least revenue, at $170,044.20. This exceptional performance can be attributed to effective store management, impactful marketing, and high-quality products that resonate with our customers. Store performance might need to be tracked further to understand if this is a consistent trend.
* **Top Five Products for the store with the highest Sales:** Store 5's top-performing product was Product 1628, with a total sale of $3953.43, followed by Product 1286 and Product 1699. The popularity of product 1628 amongst our customers underscores its superior quality and appeal.
* **Bottom Five Products for the store with the highest Sales:** The least sold product in Store 5 was Product 1564, with a total sale of $12.06. This product may require more effective marketing strategies or perhaps it does not align well with our customers' needs and expectations.
* **Comparative Gross Profit for each store:** Store 5 also led in gross profit with an impressive $51,777,110. But also, it's essential for each store to understand the drivers behind their gross profit and to identify strategies to improve. By focusing on boosting high-performing products, improving the performance of under-performing products, and maintaining effective cost controls, we can work to improve these figures across all stores.
* **Biggest Trenders:** Product 1117 showed the highest volume growth, with Day 7 volume being 13 times the Day 1 volume. This trend provides us with essential insights into customer preferences and product performance. For the biggest trenders, we should consider maintaining the momentum, possibly through targeted promotions or bundling with other popular items.

## Deployment:

The findings of this report have significant business implications. We need to focus on why some products are trending and others are not and consider rearranging our shelf space accordingly. Also, the comparative performance of the stores could guide resource allocation decisions.

## Infrastructure Considerations:

The Generative AI package and RapidMiner tool were used to generate and analyse the dataset. The dataset was stored in a secure .CSV file. No personally identifiable customer information was used in the analysis, ensuring privacy.

A diagram of a computer

Description automatically generated

Figure . Combined final process showing the operators

Now, we should continue to monitor these metrics and dive deeper into the factors influencing product sales and store performance.

## Appendix:

A graph of sales

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Figure . Comparative Sales (Revenue) for each store

A graph of blue rectangular bars

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Figure . Top Five Products for the store with the highest Sales

A graph with blue bars

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Figure . Bottom Five Products for the store with the highest Sales

A graph of blue rectangular bars

Description automatically generated with medium confidence

Figure . Comparative Gross Profit for each store

A graph of a number of people

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Figure . Biggest Trenders