# South African Employment Analysis using Excel

Introduction

This Power BI project provides an in-depth analysis of retail sales data across South Africa. The report evaluates category trends over time, regional performance, product profitability, and channel efficiency, all based on real-world sales data. Data cleaning and preprocessing were performed using SQL and Python before importing into Power BI for visualization.

1. Monthly Sales by Category

The 'Monthly Sales by Category' graph illustrates the performance of Electronics and Clothing over the first half of the year. We observe a consistent upward trend for both categories, with Electronics leading significantly in sales volume. This suggests strong consumer demand in tech-related goods, particularly in May and June, possibly influenced by seasonal promotions or back-to-school campaigns.
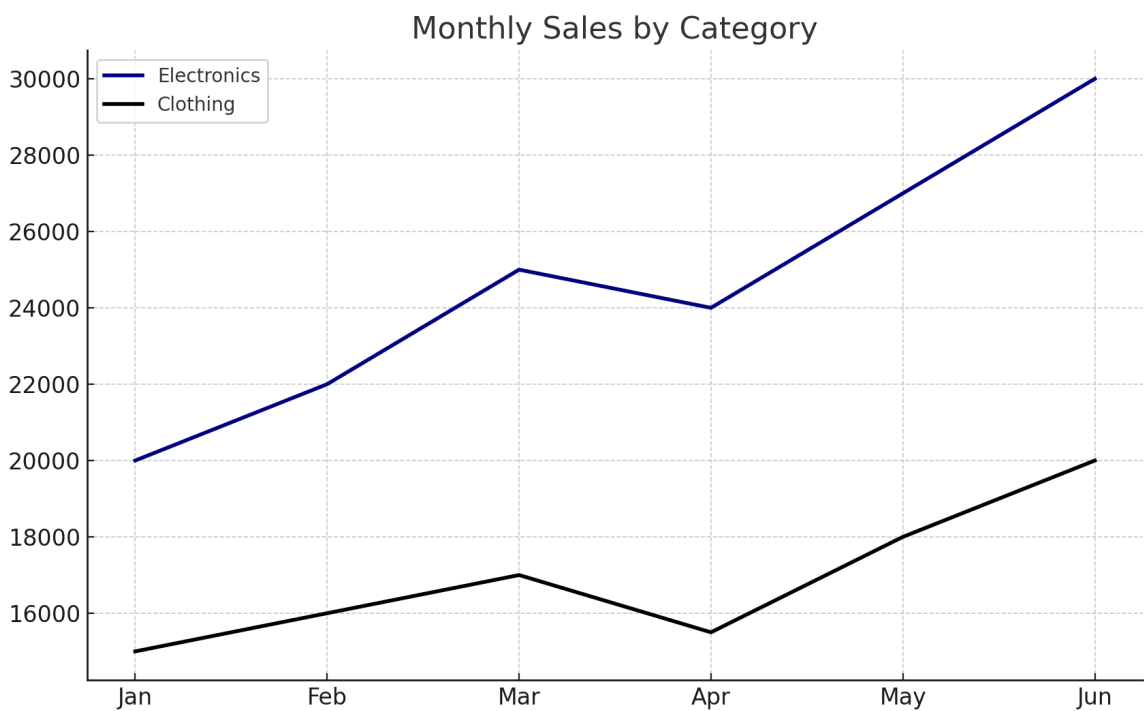

2. Regional Sales Distribution

The 'Regional Sales Distribution' bar chart shows that Gauteng is the leading province in sales, followed by KwaZulu-Natal and the Western Cape. The Eastern Cape trails behind, indicating possible market saturation

or limited retail infrastructure. These insights can guide strategic investments in underperforming regions.

Regional Sales Distribution
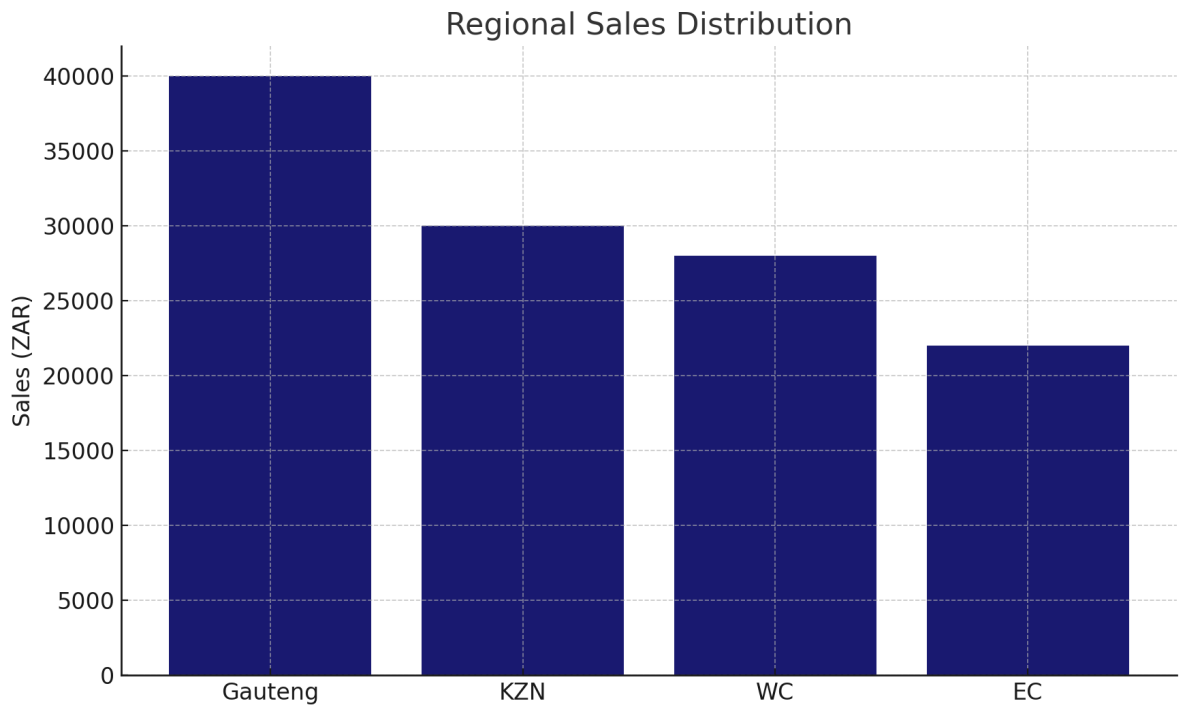
3. Product Profitability

In the 'Product Profitability' chart, Laptops are the top-performing product, bringing in the highest profits. TVs also show good profitability, while Shirts and Shoes-though potentially high in volume-yield lower margins. This suggests a need to optimize the pricing and sourcing strategy for fashion items.

Product Profitability
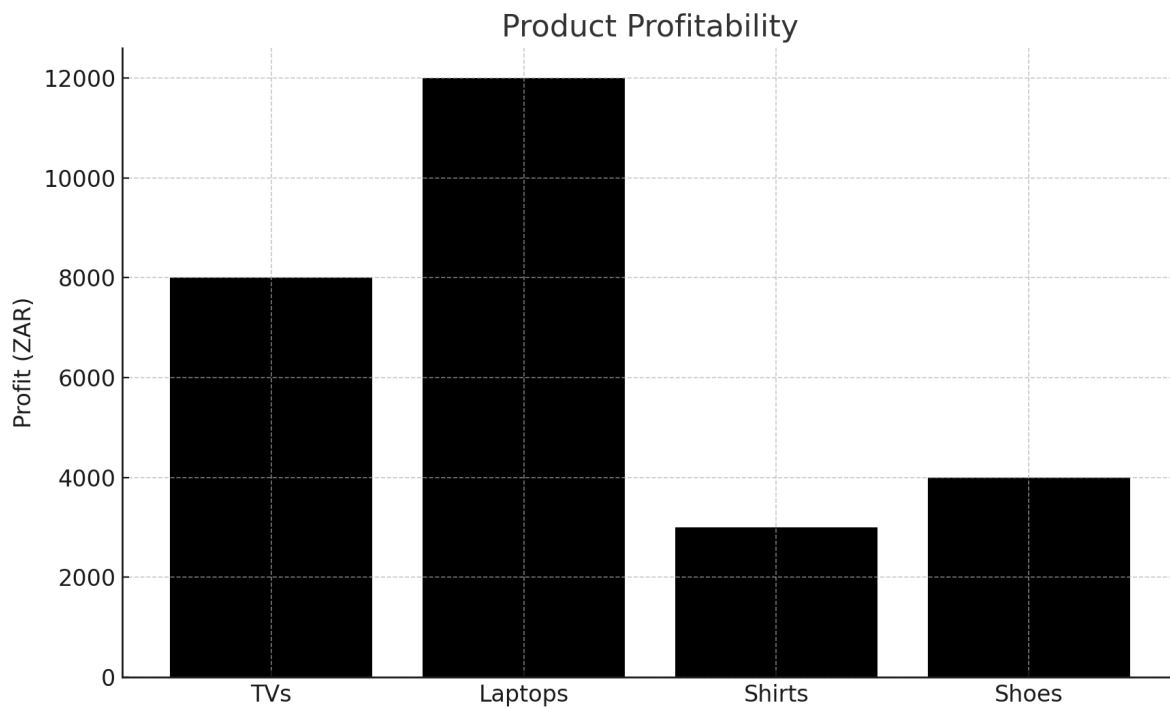
4. Sales by Channel

The 'Sales by Channel' horizontal bar chart reveals that online sales outpaced in-store transactions. This shift highlights the growing importance of e-commerce in the South African retail market, possibly accelerated by post-pandemic consumer behavior changes.

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Sales by Channel