

STERLING E-COMMERCE

DATA ANALYSIS REPORT

11 OCTOBER, 2023

BY
GROUP 1



AGENDA

- Introduction
- Data Overview
- Main Objectives
- Data Overview
- Methodology
- Key Findings
- Actionable Insights
- Recommendations
- Conclusions



INTRODUCTION

About



Sterling is an innovative e-commerce company that specializes in wide selection of products across various categories such as health, fashion, sports, computing etc



Mission

In today's data-driven world, understanding customer behavior and market trends is essential for success.

Data analysis empowers Sterling to make informed decisions, optimize product offerings, and enhance overall customer experience.

It allows them to tailor their strategies to meet the evolving needs and preferences of their valued customers.

DATA OVERVIEW

DATASET

The dataset used for our analysis is a comprehensive collection of customer transaction data. It includes a wide range of information, such as customer demographics, purchase history, and order details.

TIME FRAME

The data covers a period of October 2021 to September 2022

DATA SIZE

The dataset consists of 19 data headers on the column and 283,0840 rows, providing a substantial sample size for robust analysis



OBJECTIVES

To identify any patterns or trends in Sterling's sales data



To leverage the power of their data to gain insights into the business and improve their efficiency





METHODOLOGY



DATA CLEANING AND PREPARATION

We identified and addressed data quality issues such as missing values, duplicates, and outliers

Next, we outlined possible questions we want to provide answers to with our analysis.



DATA ANALYSIS

We employed Microsoft Excel's pivot tables for data exploration, summarization, aggregation, and basic analysis to calculate key performance indicators.

DATA VISUALIZATION

Pivot tables allowed us to aggregate and visualize data quickly and efficiently. However, we had to extract the data from the pivot to create more advanced visuals such as maps.



SALES TRENDS

Sales Growth

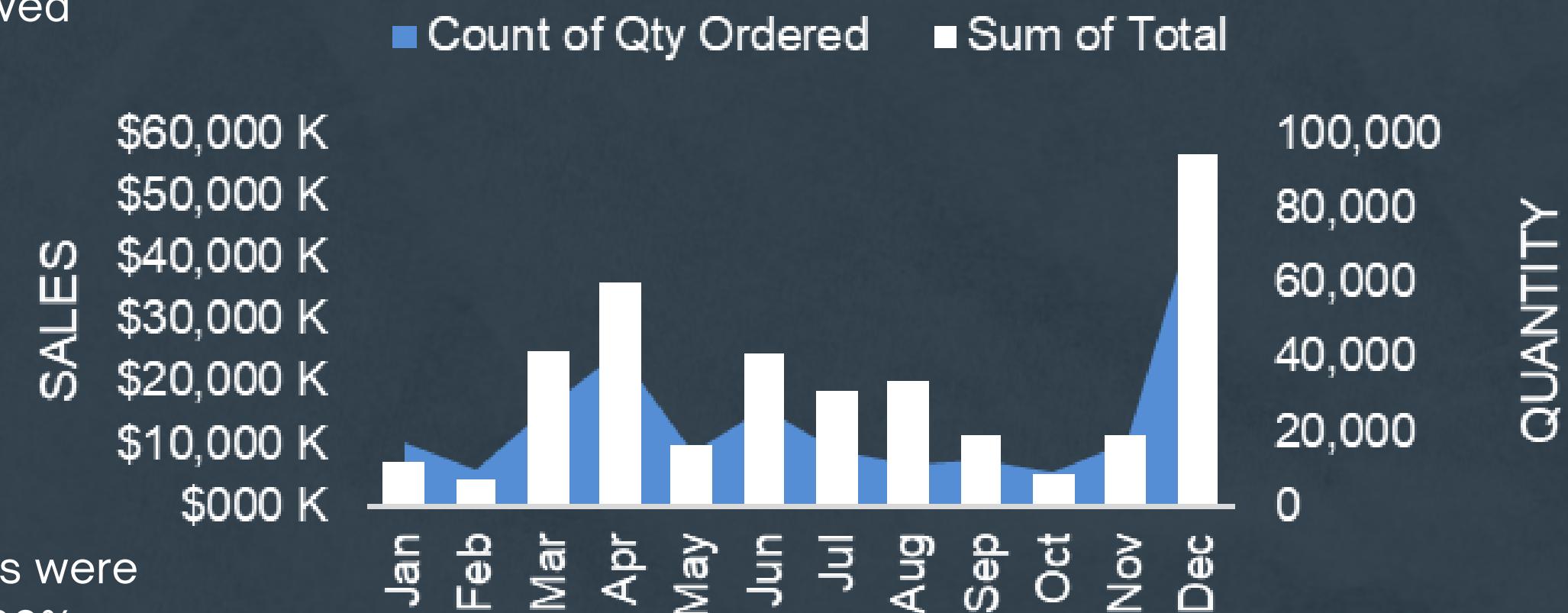
46%

Throughout the analyzed period, we observed a steady increase in sales, culminating in a 46% revenue spike in the most recent two quarters.

88%

Quantities sold

A total number of 851, 577 product items were sold within the data time frame and an 88% sales increases was observed within the last two quarters



KEY FINDINGS



SALES TRENDS

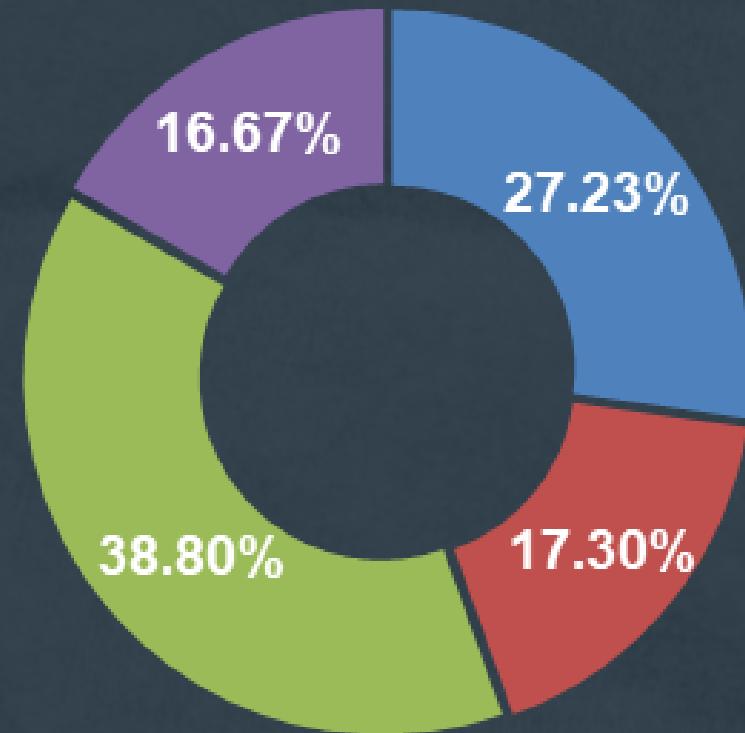
Best-Selling Products

56%

The analysis identified mobiles and tablets as the best seller and it accounted for 56% of total sales.

Mobiles & Tablets	\$128,600 K
Appliances	\$29,806 K
Entertainment	\$26,764 K
Others	\$15,429 K
Computing	\$9,291 K

■ Midwest ■ Northeast ■ South ■ West



Regional Sales Variation

Sales vary by region, and the Southern states took the lead the way with a 39% above the others

39 %

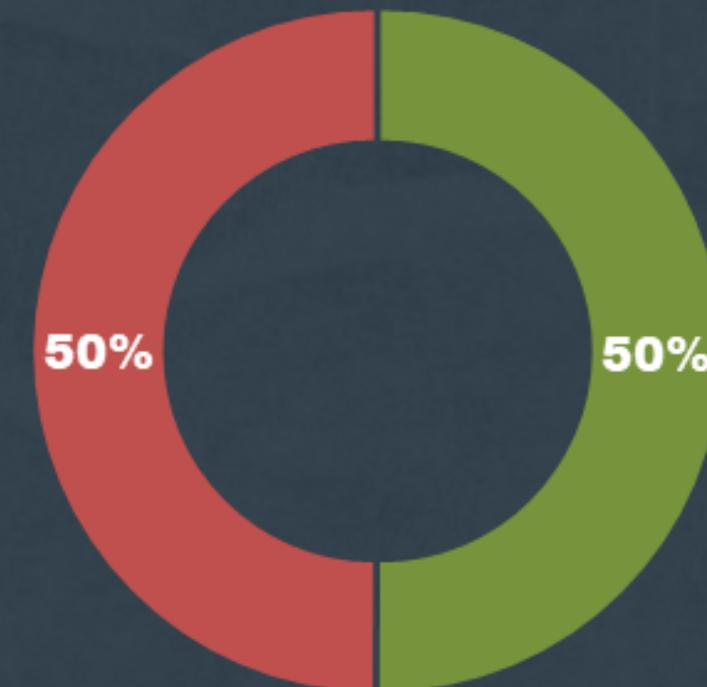
CUSTOMER INSIGHTS

Customer

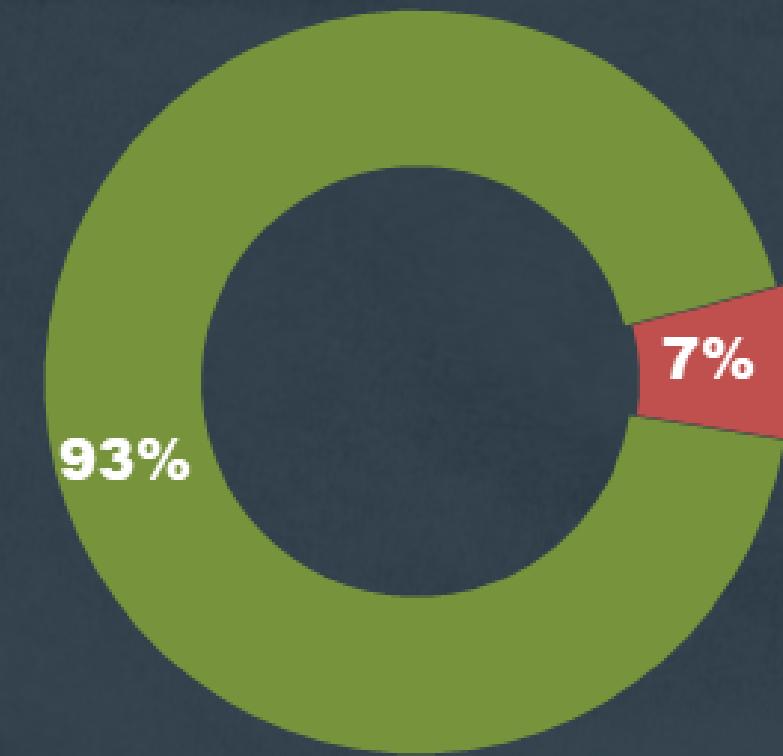
50%

The revenue from buyers in both genders was almost evenly split, with each gender contributing to approximately 50% of the total revenue.

■ F ■ M



■ Abandoned ■ Sold



Cart Abandonment

Our findings indicate that just 7% of total customers who begin the checkout process do not follow through with their purchase.

7 %

CUSTOMER INSIGHTS



92%

Customers' Payment method

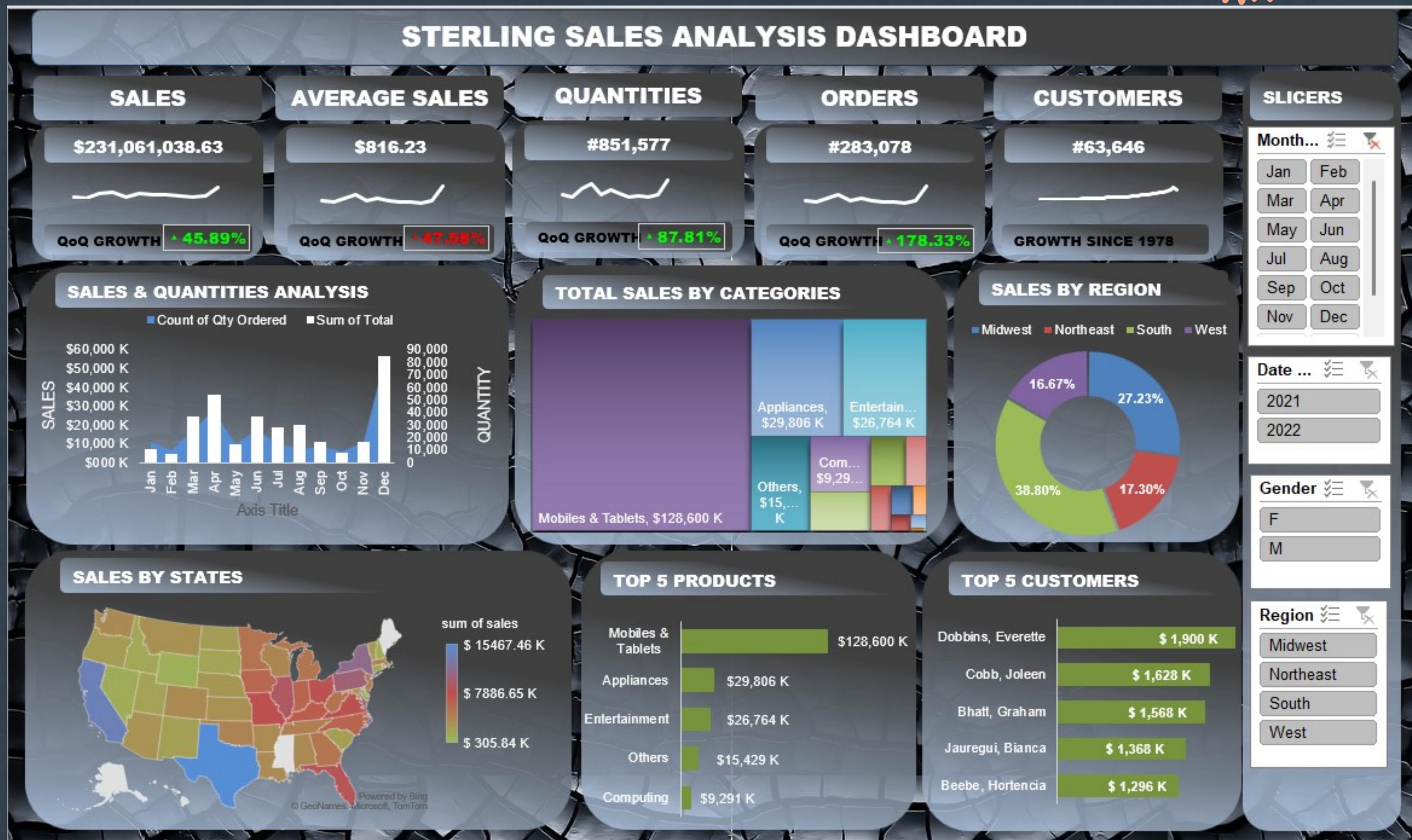
Our analysis showed that 92% of the company's total earnings can be attributed to this payment methods preferred by our customers.



Top 5 Customers

We also identified the top 5 customers based on total purchase value.

DASHBOARD



ACTIONABLE INSIGHTS & RECOMMENDATIONS

Sales Growth Strategies

Capitalize on Seasonal Trends

Develop and execute targeted marketing campaigns, promotions, and discounts to take full advantage of the holiday season demand. Plan inventory accordingly to meet increased customer orders.

Best-selling products



Expand Top-Performing Categories

Collaborate with our procurement team to diversify offerings within Electronics and Apparel, leveraging consumer demand in these categories for growth opportunities.

ACTIONABLE INSIGHTS & RECOMMENDATIONS

Cart Abandonment

Optimize Checkout Process

Streamline and simplify the checkout process. Implement features like guest checkout, clear shipping cost information, and reminders for abandoned carts. Monitor the impact of these changes.

Regional Sales

Regional Targeting

Optimize engagement and sales in high sales regions with localized marketing strategies.

ACTIONABLE INSIGHTS & RECOMMENDATIONS

Customer loyalty

Customer Retention Strategies

Launch a customer loyalty program that rewards repeat purchasers

Data-Driven Marketing

Dashboard monitoring

Utilize customer preference and purchase history data to create personalized marketing campaigns.

CONCLUSIONS

Key Takeaways:



- Our data analysis yielded valuable insights on Sterling's customer behavior and performance.
- Sharp growth in quantity sold and total sales during November and December highlights the importance of capitalizing on seasonal trends.
- Cart abandonment rates present an opportunity for improvement in the checkout process
- We observed healthy customer loyalty rates, indicating a strong customer base

DATA ANALYSIS TEAM



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THANK YOU!

Any question?