**Data Analysis Project Report From 2011-2014**

**Objective:**

The goal of this data analysis project is to examine and derive actionable insights from sales data over four years of operation, focusing on key metrics such as total sales, shipping costs, delivery status, category sales, and quantity sales.

**Key Metrics:**

Total Sales: $3,245,074

Shipping Cost: $365,396.20

Quantity Sold: 45,986

Regions: 13

Products: 3,243

Customers: 795

Years of Operation: 4

**Delivery Status Analysis:**

**Early Shipping:**

Sales: $987,688 (30%)

Shipping Cost: $158,354.19

**Late Shipping:**

Sales: $904,946 (28%)

Shipping Cost: $904,946

**Normal Shipping:**

Sales: $1,352,440

Shipping Cost: $138,353.54 (42%)

**Category Sales:**

Furniture Sales: $1,013,806

Office Supplies Sales: $990,240

Technology Sales: $1,241,028

**Quantity Sales:**

Technology: 9,114

Office Supplies: 28,093

Furniture: 8,779

**Sales by Year with Delivery Cost:**

**2011:**

Sales: $605,743

Shipping Cost: $68,990

Quantity Sold: 8,326

Products: 1,547

Customers: 614

**2012:**

Sales: $695,055

Shipping Cost: $76,224.15

Quantity Sold: 9,796

Products: 1,702

Customers: 654

**2013**

Sales: $892,796

Shipping Cost: $101,328.68

Quantity Sold: 12,367

Products: 1,970

Customers: 706

**2014:**

Sales: $1,051,480

Shipping Cost: $118,853.25

Quantity Sold: 15,497

Products: 2,252

Customers: 741

**Insights**

1. Delivery Status: The majority of sales come from normal shipping.

Category Analysis: Technology products generate the highest sales, followed closely by furniture and office supplies.

Yearly Trends: Sales have consistently increased over the four-year period.

2. Sales Performance:

The total sales over the four-year period have shown a consistent upward trend, indicating a positive growth trajectory for the business.

3. Category Contribution:

Technology products contribute significantly to overall sales, surpassing both furniture and office supplies. This highlights a strong market demand for technology-related items.

4. Shipping Impact:

Normal shipping accounts for the majority of sales.

5. Yearly Sales Growth:

The yearly breakdown reveals a consistent increase in sales, demonstrating the business's ability to attract and retain customers.

6. Shipping Efficiency:

Early shipping is associated with higher sales, indicating a potential correlation between prompt delivery and customer satisfaction. Further optimizing early shipping processes may positively impact sales.

7. Customer Base:

The data indicates a customer base of 795 individuals.

9. Shipping Cost Dynamics:

The shipping cost breakdown by category and delivery status provides insights into the operational costs associated with different product types and shipping timelines.

**Recommendations**

1. Optimize Shipping Processes:

Investigate the causes of late shipping and work towards optimizing the shipping processes. This could involve streamlining logistics, improving warehouse efficiency, or optimizing delivery routes.

2. Category Focus:

Given that technology products have the highest sales, consider marketing efforts to further promote and expand the technology category.

3. Product Performance Analysis:

Conduct a detailed analysis of individual product performance to identify best-selling products and underperforming ones. This information can guide inventory management and marketing strategies.

4. Customer Retention:

Implement customer retention strategies to capitalize on the existing customer base. Consider loyalty programs, personalized promotions, or targeted marketing campaigns to encourage repeat business.

5. Shipping Cost Efficiency:

Reduce shipping costs without compromising service quality, potentially leading to increased profitability.

6. Customer Satisfaction Surveys:

Implement customer satisfaction surveys to gather feedback on the overall shopping experience, including shipping and product satisfaction. Use this information to address any pain points and enhance customer satisfaction.

7. Collaboration with Suppliers:

Collaborate closely with suppliers, especially for high-performing categories like technology. Negotiate better terms, explore exclusive partnerships, and ensure a stable supply chain for popular products.

**Conclusion**

The comprehensive aim of this report is to leverage data analysis to provide a thorough understanding of the business's sales performance, shipping dynamics, and market trends over four years. By examining key metrics such as total sales, shipping costs, delivery status, category sales, and quantity sales, the report aims to unearth actionable insights that inform strategic decision-making.

Through a detailed exploration of yearly trends, category contributions, and the impact of shipping efficiency on sales, the report seeks to empower stakeholders with the knowledge needed to optimize operational processes, enhance customer satisfaction, and capitalize on high-performing product categories.

Additionally, to identify areas for improvement, such as reducing late shipping costs and refining marketing strategies, ultimately guiding the business toward sustained growth and increased profitability.

The report serves as a valuable tool for stakeholders, offering not only a retrospective analysis of past performance but also actionable recommendations for future initiatives. By presenting a holistic view of the business's data landscape, the report aims to foster informed decision-making and strategic planning that aligns with the overarching goals and success of the organization.

**Dataset used for the project was gotten from: Kaggle.com**

**Thank you**

**Donatus Victor**

**The Analyst**