**Executive Summary**

The five dashboards presented in this report provide a comprehensive overview of the company's sales, operational, and customer metrics. The Sales Dashboard provides valuable insights into the company's sales and profit trends, including top-selling categories and market performance, allowing for informed decision-making and future growth planning. The Identifying TOPs dashboard is a crucial tool for senior management teams to make informed decisions about resource allocation and maximizing profits, providing insights on the best-performing products, customers, and subcategories across different markets and years of the order date. The shipping dashboard offers valuable insights into the company's shipping performance, including average delivery time and shipping costs by country and shipping mode, highlighting markets for improvement and recommendations to optimize efficiency, improve customer satisfaction, and increase profitability. The unprofitable dashboard identifies the product categories and customer segments that are generating losses, enabling the company to take corrective action. Finally, the customer analysis dashboard examines customer behavior, retention rates, churn rates, and loyalty, offering recommendations to increase customer retention and decrease Churn Rate, loyalty, and profitability.

Overall, these dashboards provide a holistic view of the company's performance and highlight opportunities for growth and improvement. By leveraging the insights from these dashboards, the company can make data-driven decisions to optimize its sales, operations, and customer relationships.

**Report**

The *Sales Dashboard* provides insights into the company's sales and profit trends, identifying the top-selling categories and market performance. Analyzing this data can help companies make informed decisions and plan for future growth. Sheet *Sales and Profit trend over the Year -* shows the changes in sales and profit for 2018-2022 and offers the predicted profits and sales using analytics. Sales were at their highest in June and December, with a significant decrease in July and January between 2018 and 2021. However, sales have increased significantly since July 2021, reaching their peak in September of the same year. The forecast indicates that sales will decrease sharply in January 2022 compared to those in December 2021 and July 2021. The projected peak for sales is December 2022 in 2022-2023.

Using the Category and Market filter, the dashboard found that September is the top-selling month for furniture and the US is the highest-selling country with 2,297,201 sales, followed by Australia. The Sales and Profit chart showed copiers in technology generated the most profit (258,568), while tables in furniture incurred a loss of -64,083. The Percentage of Sales chart revealed that APAC has the highest market share (28.36%), followed by the EU (23.24%). The Market Sales by Categories chart compares sales across categories and markets, with furniture and technology dominating sales. By hovering over a category, we see its share of sales in each included country, such as Australia and China having the highest sales in each category in APAC.

The *Identifying TOPs* dashboard is essential for senior management teams to make informed decisions about resource allocation and maximizing profits. This dashboard provides a clear view of the best-performing products and customers in different markets and years of the order date.

Most of the best-selling products are smartphones from different brands, including Apple (#1), Cisco, Motorola, Nokia, and Samsung. However, the most profitable product is the Canon ImageClass 2200 Advanced Copier. Unfortunately, Apple and Samsung smartphones were not included in the list of profitable products, but Cisco, Motorola, and Nokia smartphones were included.

The top 10 customers by sales are also identified, with Tom Ashbrook being the most loyal customer, with orders totalling 40K in sales.

The most profitable sub-categories are copiers and phones, with the least profitable being tables, Fasteners, and Labels.

The *Shipping Dashboard* provides valuable insights into the company's shipping performance, including the average delivery time and shipping costs by country and shipping option. The average delivery time of 3.959 days. The shipping costs do not vary so much among the countries. However, Chad has the highest shipping cost of $149, and the US has an average shipping cost of $23. It is important to note that Chad only had one order, so the high price may be due to the small sample size. The dashboard also shows that different shipping modes have different average costs, with the Same Day Shipping with Critical Priority being the most expensive and Standard class shipping with Medium Priority being the least costly.

The dashboard also identifies the Top five consistently late products, indicating a need for improvement in the company's shipping process for these items. These products include Staples, Rogers File Cart, Single Width; Cardinal Intex Tab, Clear; Sanford Pencil Sharpener, Water Color; and Eldon File Cart, Single Width.

The*Losses/Unprofitable Dashboard* is divided into different sheets to provide an in-depth view of the company's losses and unprofitable markets. The first sheet provides a detailed analysis of the company's profit and loss by product category, sub-category, and market. From this analysis, the Tables sub-category is unprofitable, with a loss of -64083. To identify the specific areas causing losses, the Profit Loss from selling Tables in each market for 2018-2019 is considered.

The analysis shows that in 2018, the APAC market brought the most significant loss of -5544, while Africa and EMEA were the only markets that brought in profit. In 2019, the EU market had the most significant loss of -7485, while EMEA had the biggest gain of 3950, and Africa lost. In 2020, APAC suffered losses of -5894, and Africa made more profit in 1981. Finally, in 2021, almost all markets except Africa suffered losses, with the US being the biggest loss-making market with a loss of -8141.

The next sheet focuses on the top 10 countries that bring losses. These countries include Turkey, Nigeria, the Netherlands, Honduras, Pakistan, Argentina, Panama, Sweden, the Philippines, and South Korea. Again, Turkey and Nigeria are the countries causing the most losses, with losses of -98K and -80K, respectively.

Further analysis of these countries reveals that in Nigeria, the losses are mainly due to Bookcases in Furniture (-10.7K), Appliances in Office Supplies (-8.3K), and Phones in Technology (-10.4K). In Turkey, the losses are due to Chairs in Furniture (-12.4K), Storage in Office Supplies Category (-12.6K), and Phones (-16.6K).

The *Customer Analysis Dashboard* is a valuable tool a company can use to understand customer behaviour, identify markets for improvement and increase customer retention, loyalty and profitability. The data provided reflects the results of several analyses, including cohort analysis, customer retention analysis, customer churn ratio analysis, customer loyalty and discount analysis.

Cohort analysis over the years showed that the company had a high level of customer retention - more than 99%, with most customers returning in subsequent years. Therefore, it was decided to create a Customer Retention Rate per quarter to investigate more detail. However, an analysis of the customer churn rate showed that the average level of outflow in the company is 45%, with the peak churn occurring during peak periods in June 2019, May 2020, and May 2021. In addition, the above-average churn rate consistently occupies the period from February to October for all years. However, from October to February, the churn rate is below average.

The analysis of customer loyalty and discounts showed that customers mainly place 4-7 orders per customer, while the number of orders per customer steadily decreases. However, the same cycle occurs when customers place 24-26 orders per customer. Therefore, a discount of at least 18.1% would increase the number of orders placed per customer and ensure continued profitability.

**Recommendations**

1. Increase Sales and Profitability:

* Focus on increasing sales in unprofitable sub-categories, such as tables, by reevaluating the pricing strategy and marketing campaigns for these categories.
* Develop targeted marketing campaigns for top-selling categories during peak selling months, such as furniture in September.
* Increase efforts in markets with lower sales and profit, such as Canada, by investing in market research and developing tailored marketing strategies.

1. Product and Customer Focus:

* Focus on the most profitable products, such as the Canon ImageClass 2200 Advanced Copier.
* Prioritize valuable and loyal customers, such as Tom Ashbrook, by offering personalized incentives and services to improve customer retention. Determine the top customers in each market and the year of their order to give them the attention they need to increase sales, such as by offering a loyalty card program.
* Consider expanding product offerings in top-performing sub-categories (Technology – Phones and Copiers, Office Supplies – Storage, Furniture – Bookcases and Chairs) and markets to capitalize on the strong sales potential.

1. Efficiency and Cost Optimization:

* To reevaluate its pricing policies for smaller markets to ensure that shipping costs are reasonable and not significantly higher than other markets.
* To analyze the costs and profitability of each shipping option to make informed decisions about which services to offer and adjust the pricing accordingly, especially when their prices are almost the same. For example, first-class high priority and same day high priority shipping.
* To focus on improving its shipping process for the top five consistently late products that were shown to prevent delays in the future and ensure customer satisfaction.

1. Loss Minimization:

* Discontinue the Tables sub-category altogether, as it is causing losses, and the sales trend is declining yearly.
* Focus on the top 10 countries causing losses, especially Turkey and Nigeria, and identify the sub-categories that need improvement, such as Bookcases in Furniture, Appliances in Office Supplies, Phones in Technology, Chairs in Furniture, and Storage in Office Supplies. Conduct a thorough analysis of the sub-categories causing significant losses and identify ways to improve profitability.
* Implement cost-saving measures to reduce losses in the unprofitable sub-categories and markets.
* Consider shifting focus to profitable sub-categories and markets.

1. Customer Retention and Profitability:

* Priority should be given to reducing churn during peak periods and implementing measures to increase customer retention during off-peak periods.
* Provide discounts of at least 18.1% to increase the number of orders placed per customer, ultimately leading to increased profitability.
* Consider changing discount strategy: data shows that customers tend to place more orders (4-7 orders and 24-26 orders) when they reach a certain threshold. Therefore, adjusting the discount strategy to encourage customers to reach these thresholds and increase the likelihood of repeat purchases would be worth adjusting.