



A Commercial Insights Report using Store Data

An Analysis Exploring Insights and Trends

Abstract

This report offers a comprehensive analysis of the following: Sales, Product Category, Market, Customer Segmentation and Shipping Costs to reveal key insights for strategic refinement to advocate for dynamic approaches aligned with seasonality trends to enhance overall profitability.

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Executive Summary

This executive summary encapsulates a comprehensive analysis of store data, aiming to provide insights for strategic refinement. With a Profit-Sales Ratio found to be 11% necessitates for a meticulous reassessment and updating of current strategies, possibly focusing on new pricing models and improved operational efficiency. Geographic mapping of sales performance exposes unique regional dynamics, prompting tailored marketing initiatives. The examination of Quantity-Sales Ratios underlines an urgent need to reassess and evaluate current operational costs, prices and approaches to enhance overall profitability and sustainability. Moreover, the report highlights opportunities for shipping cost optimisation, revealing cost-effective strategies for shipment logistics.

Furthermore, leveraging on the seasonality trends found to capitalise on peak demand periods by take advantage in increased buying behaviours during holiday seasons, could improve overall sales. However, this also means balancing with increased shipping costs from peak periods. Favourable contracts should be drafted in response.

To fortify overall profitability, these findings emphasise an integral need for a cohesive approach, aligning pricing, sales and shipping strategies, operation efficient measures as well as targeted marketing efforts.

Context in Report

The timeframe for all analysis will use yearly quarters in the dataset, if applicable. All graphs within appendix of this report are referenced from Commercial Insights Dashboards (Lee, 2024). All monetary values are represented as millions(M) or thousands(K) in British Pounds(£). This report contains speculation and assumptions due to lack of background information.

Key Insights

Sales Analysis

Performance and Growth

Over the observed years of 2018 to 2021, the company has demonstrated a significant trajectory in financial performance, with total sales and profits reaching £12.64M and £1.47M respectively (See Figure A). A steady growth was observed on total annual sales figures.

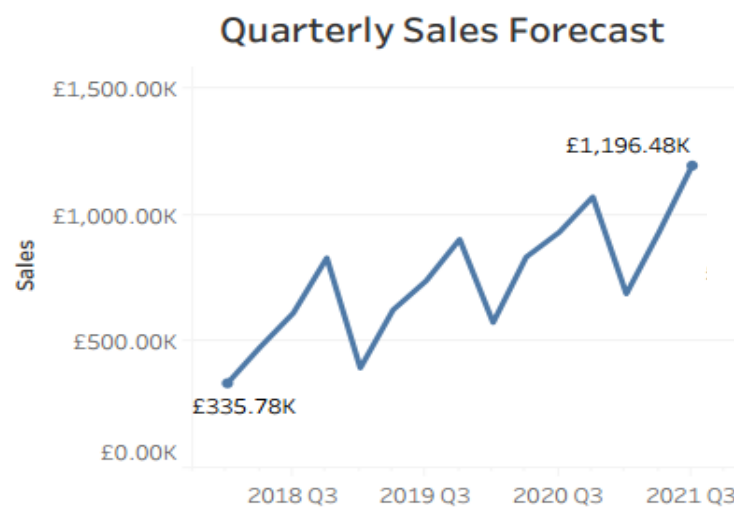


Figure 1.1: Gradual increase of sale numbers across 4 years

Delving into the breakdown of sales and quantity sold, a comprehensive understanding emerges.

For the product category, tech products contributed to the most sales at 41.53%, with office supplies contributed the least at 29.11% while the opposite is true for most quantity sold, with furniture being in the middle of the spectrum in both aspects.

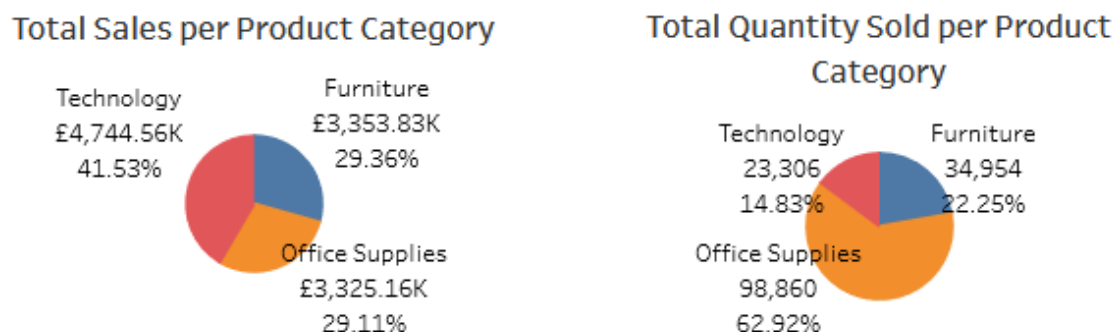


Figure 1.2: Breakdown of total sales with total units sold by product category

For Market, Asia Pacific contributed the highest at 28.36% in total sales and 23.12% in quantity sold while Canada had the lowest of below 1% for both aspects (See Figure A1.4). Lastly, Consumers contributed 51% of total sales and quantity sold with Home offices contributed least at 18%.

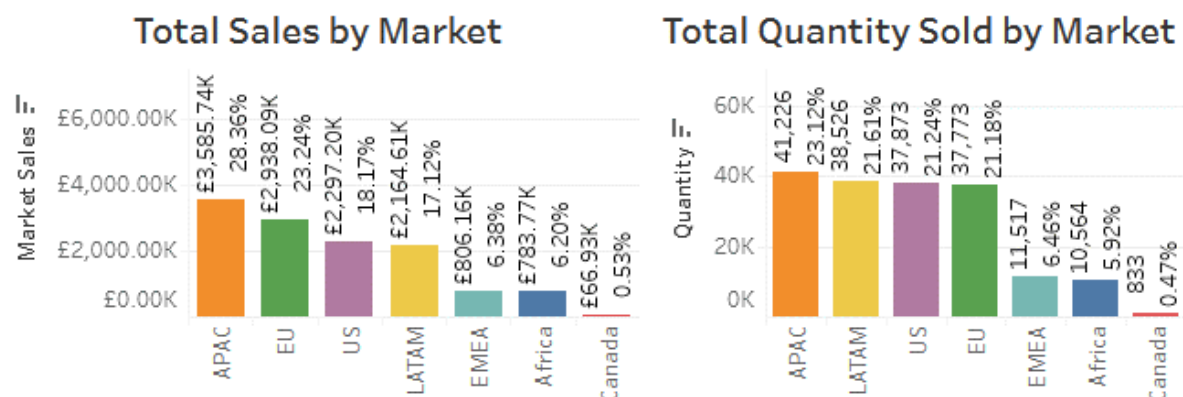


Figure 1.3: Breakdown of total sales with total units sold by Market

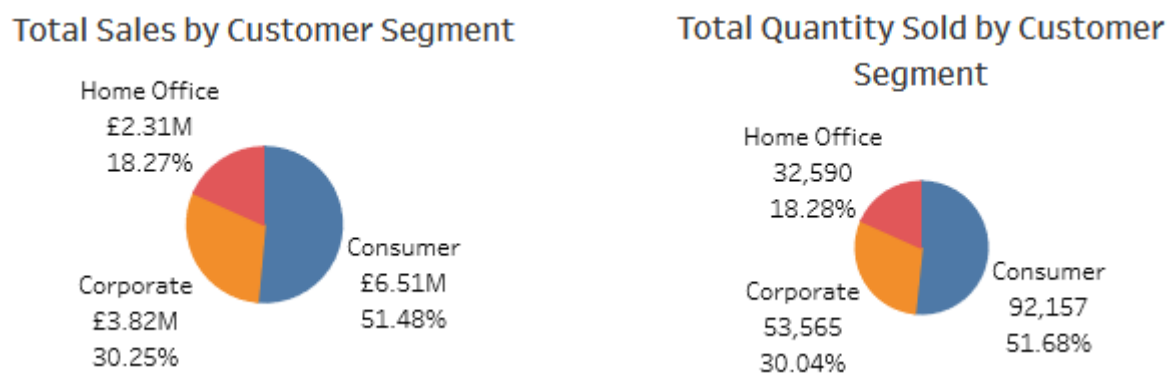


Figure 1.4: Breakdown of total sales with total units sold by Customer Segment

Evidently from Figure 1.1 and 1.5, as the company navigated economic fluctuations over the years, a resilient performance was maintained, showcasing adaptability and strategic agility. Some years reflected accelerated growth, possibly due to innovative marketing campaigns and product diversification, contributing to an expanded customer base. It is important to note that certain years experienced challenges in each segment, seen in a temporary plateau or minor dip in sales. The overall sales performance reflects a growth-capable company.

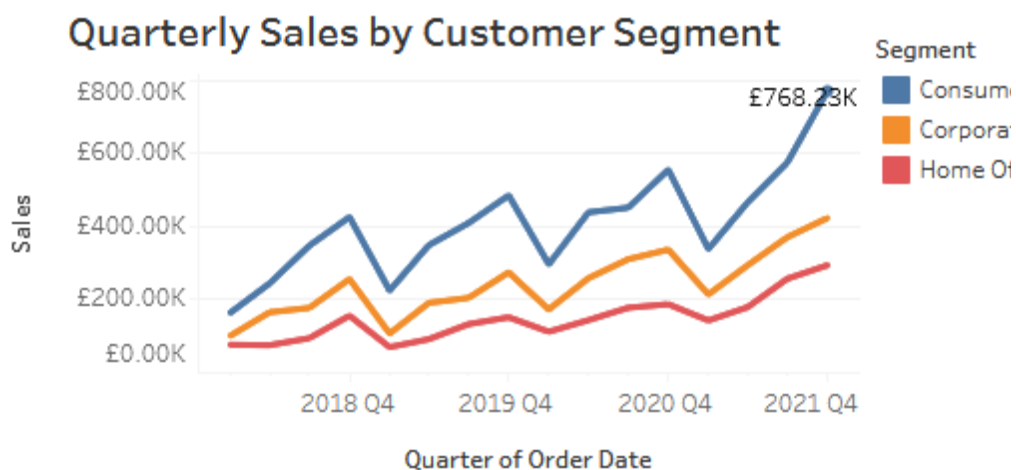
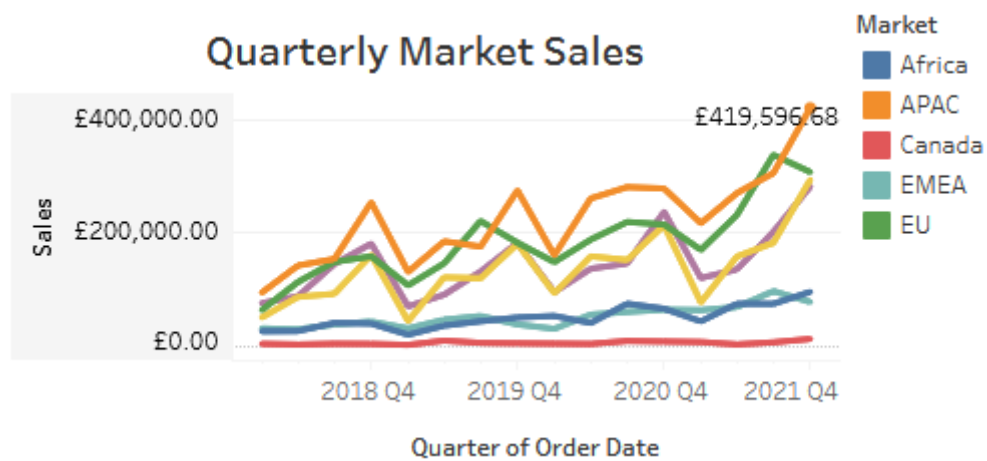
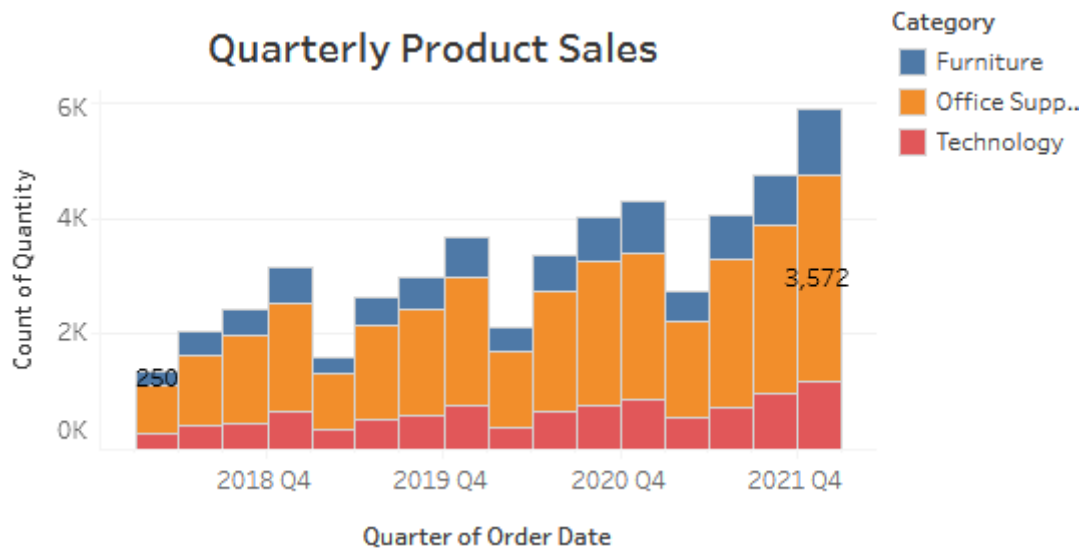


Figure 1.5:

(1st) Quarterly Product Sales, (2nd) Quarterly Market Sales, (3rd) Quarterly Sales Forecast by Customer Segment

Time Trends and Seasonality

A consistent time trend and seasonality pattern has emerged within the company's sales performance. Notably, the quarterly analysis reveals a consistent cyclicity, where the first quarter (Q1) consistently reflects the lowest figures, while the fourth quarter (Q4) continually stands out as the pinnacle period. This recurring pattern is evident across other key metrics.

Total sales, encompassing all products, exhibit a dip first in Q1, gradually ascending by quarters, and peaking at Q4 before dipping down in Q1. A similar cyclicity also observed in product sales and quantity sold, highlighting a synchronized fluctuation.

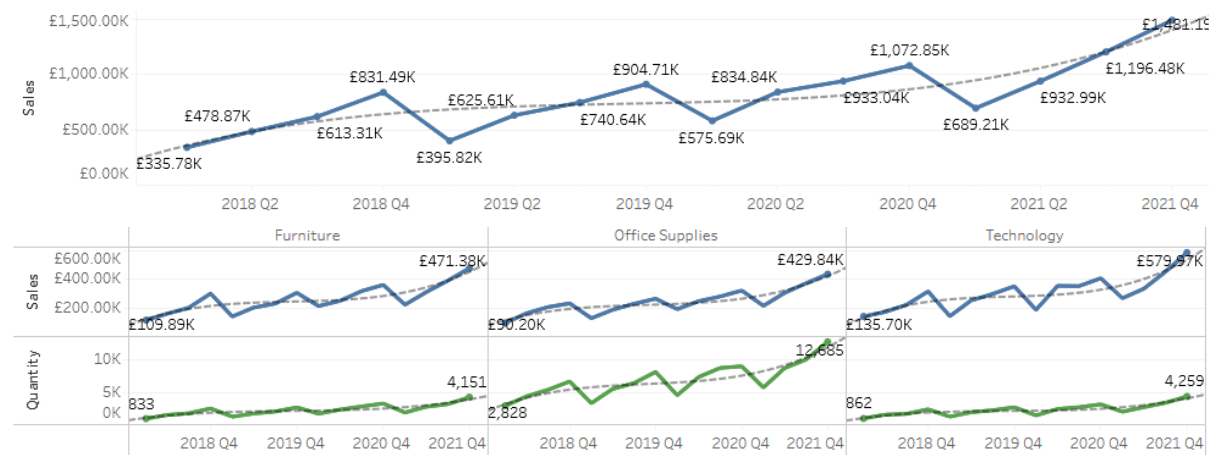


Figure 2.1: (Top) Total Sales Seasonality and Trends (Bottom) Product Category Seasonality and Trends

Market-segmented sales and quantity also mirror this temporal trend, while less obvious in Africa, EMEA and Canada and more distinct in other countries, the highest figures consistently materialising in Q4 annually. This pattern persists in customer segment, elucidating sales and quantity sold experienced annual lows and steadily rising to highs from Q1 to Q4, although not glaringly obvious for home office segment.

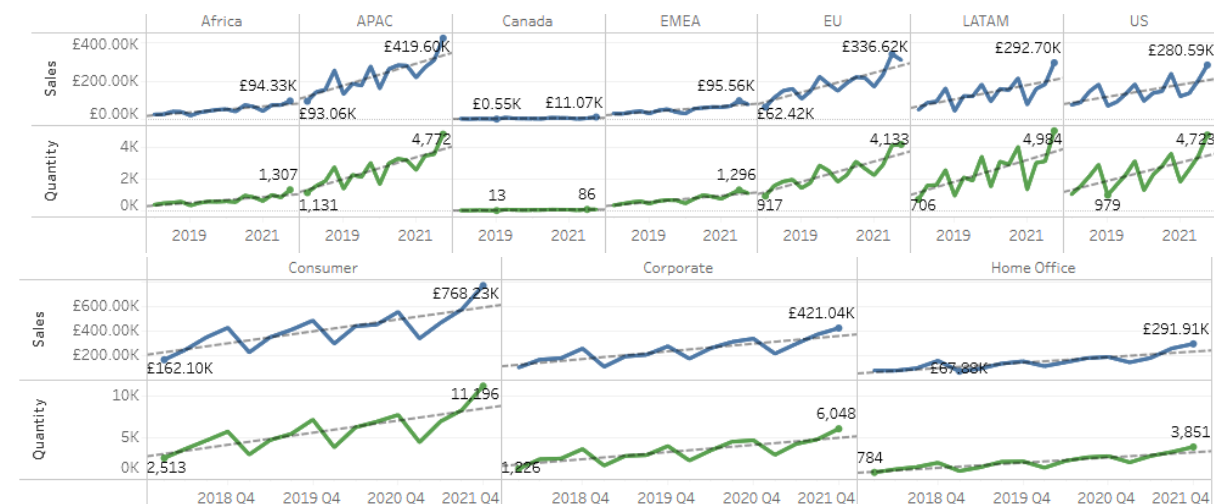


Figure 2.2: (Top) Market Seasonality and Trends (Bottom) Customer Segment Seasonality and Trends

This recurring pattern suggests a strong seasonality factor, likely influenced by external factors of holiday seasons, year-end promotions, or customer behaviour trends. The downward trend to Q1 may be attributed to post-holiday lulls and resultant in reduced spending, while the surge in Q4 could signify heightened buying activity during festive periods and year-end sales.

Segment Analysis

By itself, the US market generated the highest sales of more than £2M.

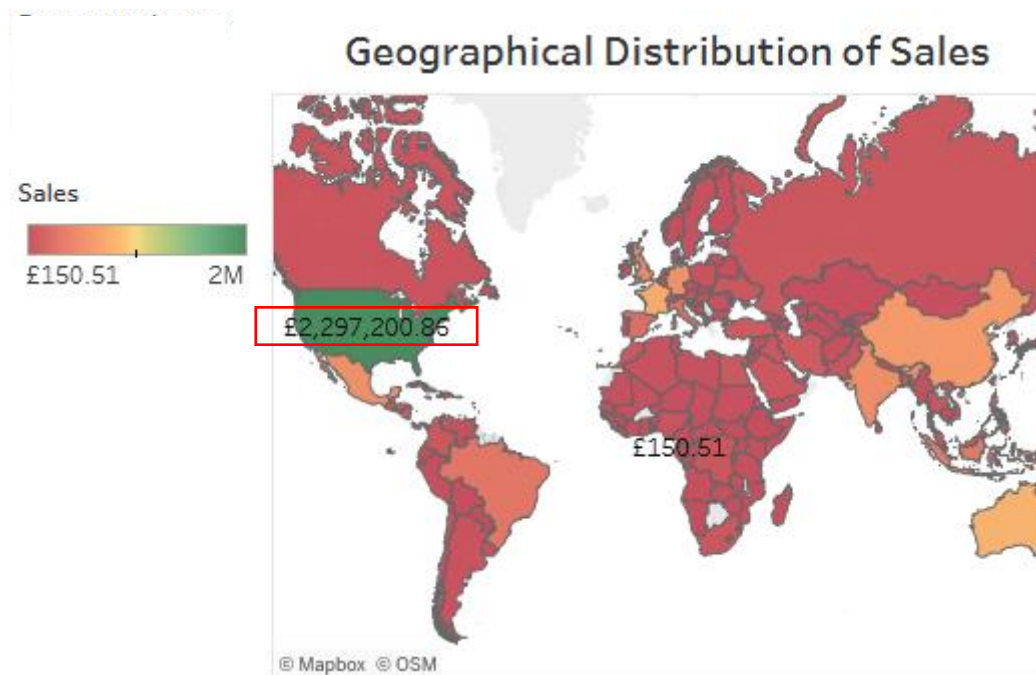


Figure 3.1: Geographic Map of Global Sales Performance

Using geographic mapping to reveal details through product, market and customer segmentation pivotal to shape future strategies. Product segmentation highlight preferences and demands across countries, allowing for optimisation of inventory and marketing plans. The map shows tech products are more popular in developed countries compared to developing. However, it is obvious that product focus is on office supplies, given the amount sold globally.

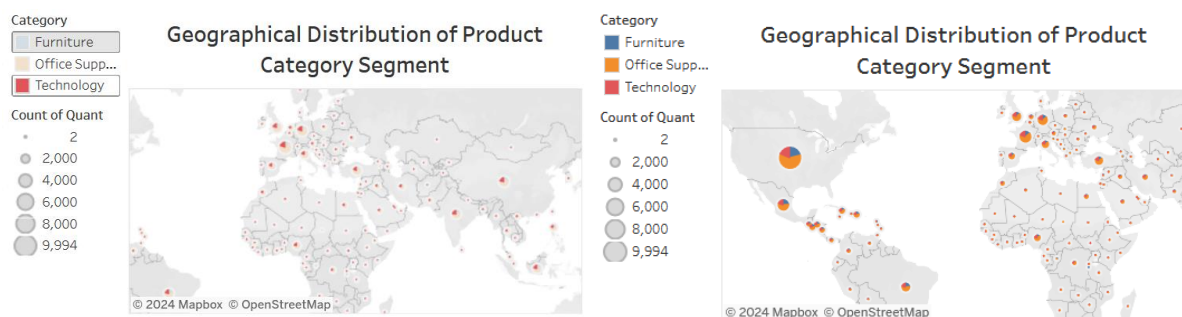


Figure 3.2: (Left) Tech Product Segmentation (Right) Geographic Map of Global Product Segmentation

Market segmentation details regional variations in characteristics. Interestingly, APAC regionally did better in sales than the US, likely due to population differential.

Geographical Distribution of Market Segment

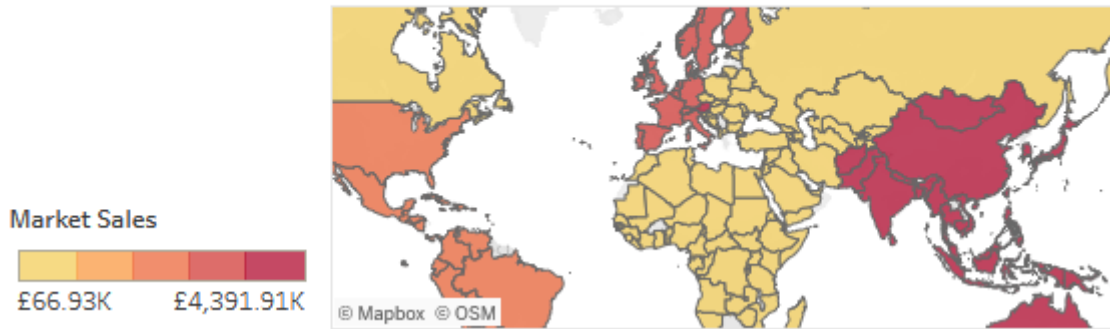


Figure 3.3: Geographic Map of Global Market Segment

Geographical representation of customer segments provides understanding of behaviour in different locations. Evidently, consumer segment is dominant across countries. This is surprising when the most popular products sold are office supplies. The use of tailored marketing initiatives to target certain demographics could increase sales.

Geographical Distribution of Customer Segment



Figure 3.4: Geographic Map of Global Customer Segment

Key Performance Indicators

Key metrics such as profit-sales ratio and quantity-sales ratio provide insights into operations across various dimensions.

Profit-Sales Ratio signifies 11.61% of total revenue was profited after accounting for expenses (See Figure B). For products, office supplies held 2.86% in quantity-sales ratio, while higher compared to other categories, generated disproportionately low revenue.

Quantity-Sales Ratio by Product Category

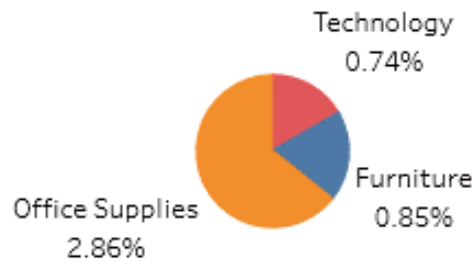


Figure 4.1: Quantity-Sales Ratio, calculated as percentage of quantity sold over sales, by Product Category

Additionally, market segmentation reveals the highest earning market (US) is struggling with only 1.65% in quantity-sales ratio, suggesting inefficiencies or pricing challenges.

Quantity-Sales Ratio by Market

Market	
Africa	1.35%
APAC	1.15%
Canada	1.24%
EMEA	1.43%
EU	1.29%
LATAM	1.78%
US	1.65%

Figure 4.2: Quantity-Sales Ratio, calculated as percentage of quantity sold over sales, by Market

For customer segmentation, quantity-sales ratio for the largest proportion, Consumer is notably low at 1.42%, indicating a need for enhancing sales efficiency.

Quantity-Sales Ratio by Customer Segment

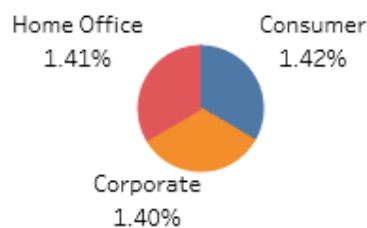


Figure 4.3: Quantity-Sales Ratio, calculated as percentage of quantity sold over sales, by Customer Segment

These figures underscore an urgency to reassess the operational costs, pricing models and market approaches to improve overall profitability and sustainability.

Shipping Cost Analysis

In a comprehensive analysis, the average shipping cost per country provides insights on geographical expenses distribution. With a range of £3.1 to £155.7, variations across countries highlight the need for tailored shipping strategies.



Figure 5.1: Geographic Map of Shipping Cost per Country

Shipping cost, totalling to £1.35M (See Figure C), underscores the significance of these expenses within the overall operational budget. Further insights into shipping efficiency emerge from average cost per shipping mode, shows Same day shipment costs £42.94, First class £41.05, Second class £30.47 and Standard £19.97 (See Figure D).

Seasonality and trends in shipping costs reveal fluctuations throughout the year, first dipping in Q1, gradually increasing in Q2 and Q3 before peaking in Q4.



Figure 5.2: Shipping Costs Seasonality and Trends

Total costs of different shipping modes indicate Standard, Second class, First class and Same day shipments incurred £614.63K, £314.11K, £308.1K and £115.97K respectively. Understanding total quantity of different shipping modes, such as Standard, Second class, First class and Same day shipments totalling 11291, 5865, 5024 and 2199 respectively, allows for a nuanced evaluation of cost-effectiveness.

Total Cost of Different Shipping Modes

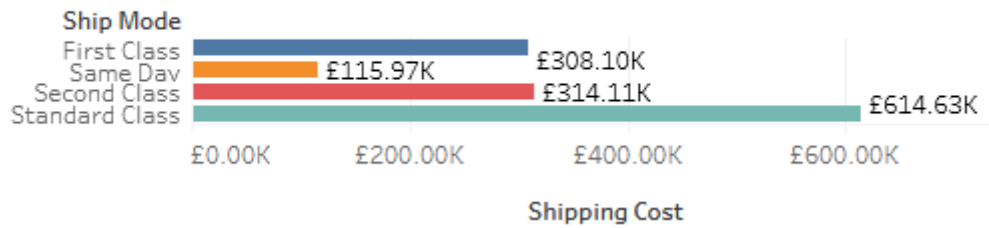


Figure 5.3: Total Shipping Cost per Shipping Mode

Total Quantity of Different Shipping Modes

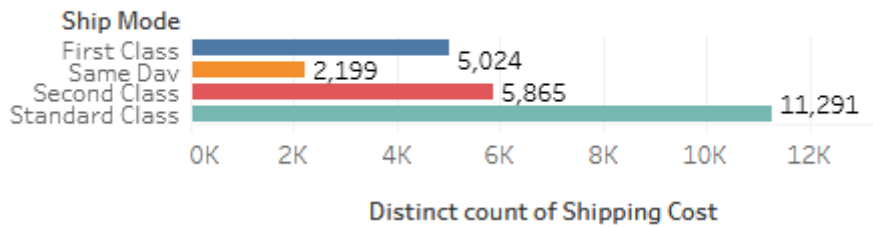


Figure 5.4: Total Quantity of Different Shipping Modes

This section provides insights on optimising shipping strategies, cost controls and enhancing overall operational efficiency.

Forecast

Referencing previous sections, Q1 and Q4 holds the lowest and highest value respectively with an upward trend. Hence the projected forecasts for 2022 in Total Sales (Q1 - £866.33K, Q4 - £1381.43K) and Shipping Costs (Q1 - £80.21K, Q4 - £188.78K) are estimated accordingly.

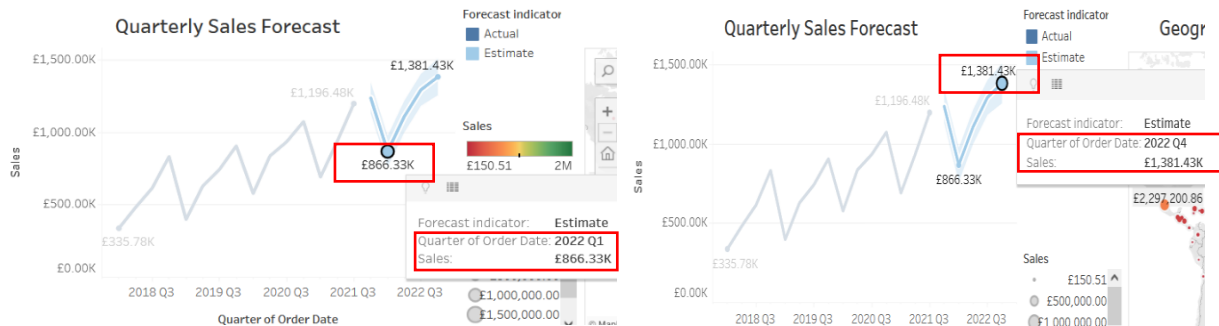


Figure 6.1: (Left) Projected Sales Forecast of £866.33K in Q1 2022 (Right) Projected Sales Forecast of £1381.43K in Q4 2022

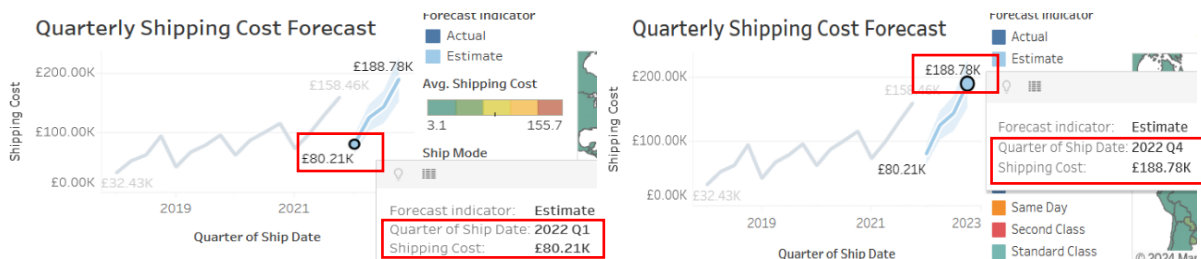


Figure 6.2: (Left) Shipping Cost Estimate of £80.21K in Q1 2022 (Right) Shipping Cost Estimate of £188.78K in Q4 2022

Recommendations

There is a need to reassess and enhance sales strategies for sustained growth and improved profitability.

The sub-par Profit-Sales ratio necessitates a thorough examination of current sales approaches, pricing models and operational costs. Addressing this, a strategic shift towards optimising product pricing and streamlining operational efficiencies could be explored. Geographic mapping indicates market dynamics across regions, suggesting opportunities for targeted marketing strategies to better cater to customer needs. Quantity-Sales Ratio by segments could guide development of more focused and effective marketing tactics.

Capitalising insights from seasonality trends can ensure responsive and dynamic sales approach. Implementing insights from shipping cost analysis can aid in dynamic logistics planning and allow for better resource allocation based on demand fluctuations. Delving into total cost of different shipping modes, opportunities arise to negotiate favourable contracts, streamline shipping routes and capitalise on economies of scale.

Conclusion

To conclude, the comprehensive analysis of data presents a clear necessity for strategic refinement within the business. With a Profit-Sales Ratio of 11.61%, there is a recognised imperative to reassess current strategies and operational efficiency. The detailed examination of shipping costs invites a closer look at shipping optimisation. By incorporating insights from seasonality and trends, the company can proactively adapt sales and shipping strategies by capitalising on peak demand periods.

This analysis serves as a catalyst for aligning sales and shipping strategies, ensuring cost-effectiveness do not compromise service and product quality and aim to enhance overall operational efficiency in a dynamic landscape of global commerce.

References

Lee, J. S. (2024, 02 16). *BACoursework_JLSM_Final_160224*. Retrieved from Tableau Public:
https://public.tableau.com/app/profile/jasmine.lee4483/viz/BACoursework_JLSM_Final_160224/Dashboard

Appendix

Total Sales

£12.64M

Total Profit

£1.47M

Figure A: Total Sales and Profits in millions (£)

Source: Page 1, Quarterly Sales Performance and KPIs'

Profit-Sales Ratio

11.61%

Figure B: Profit-Sales Ratio, calculated as percentage net profit over total sales revenue

Source: Page 1, Quarterly Sales Performance and KPIs'

Total Shipping Cost

£1.35M

Figure C: Total Shipping Cost from 2018 to 2021 in millions (£)

Source: Page 5, Shipping Cost Analysis

Average Cost per Shipping Mode

Standard Class	Second Class	First Class	Same Day
£19.97	£30.47	£41.05	£42.94

Figure D: Average Shipping Cost per Shipping Mode (£)

Source: Page 5, Shipping Cost Analysis