# **US E-Commerce Sales Performance Dashboard - 2020**

This project provides a comprehensive performance analysis of US E-commerce sales in the year 2020 using Excel. The dashboard is designed to help stakeholders understand sales trends, product performance, customer segmentation, regional profitability, and shipping efficiency.

The analysis was performed using a dataset that includes orders, products, sales, profit, discounts, and customer segments across various US regions. The outcome is a fully interactive Excel dashboard that offers actionable insights for business optimization.

**📊 Dashboard Highlights & Insights**

**🗓️ Monthly Profit & Volume Trends**

* **August** saw the highest profit of **$5,550**, followed by **March** with **$5,389**.
* **April** recorded the lowest profit (**-$3,832**) — potentially due to high discounts, poor product mix, or operational costs.
* Overall, profit fluctuated throughout the year, with noticeable drops in April, October, and November.

**Recommendation**: Investigate causes of negative or low-profit months and identify cost-saving opportunities or marketing gaps.

**📦 Product Category by Sales**

* **Technology** led with **36%** of total sales.
* **Furniture** and **Office Supplies** accounted for **33%** and **31%** respectively.

**Recommendation**: Continue investing in technology offerings while exploring bundling or discount strategies to boost Office Supplies and Furniture.

**🧩 Top 5 Product Sub-Categories by Sales**

* **Phones** ($31,549) and **Chairs** ($31,793) were the top sub-categories by revenue.
* **Machines**, **Tables**, and **Accessories** followed closely.

**Insight**: These top performers should remain focal points for marketing and inventory management.

**Recommendation**: Review pricing and supply chain efficiency for underperforming sub-categories.

**👥 Customer Segment Analysis**

| **Segment** | **Sales %** | **Profit %** |
| --- | --- | --- |
| **Consumer** | 38.33% | 53.18% |
| **Corporate** | 38.35% | 10.14% |
| **Home Office** | 23.32% | 36.68% |

* The **Consumer** segment generated the most sales and profit.
* **Corporate** had a large share of sales but very low profitability.
* **Home Office** produced the **highest profit per sale**, showing a strong profit margin.

**Recommendation**: Focus retention and loyalty strategies on Consumer and Home Office segments. Re-evaluate pricing or discounting models for the Corporate segment.

**🌎 Regional Profit Contribution**

| **Region** | **Profit** |
| --- | --- |
| **West** | $15,823 |
| **East** | $8,633 |
| **South** | $695 |
| **Central** | $420 |

* The **West** region was the most profitable, contributing over 60% of the total profit.
* **East** also performed well, while **South** and **Central** showed minimal profit.

**Recommendation**: Deep dive into South and Central regions to identify performance gaps (e.g., local competition, shipping delays, pricing issues).

**🚚 Shipping Method Performance**

| **Shipping Mode** | **Profit** | **Sales** |
| --- | --- | --- |
| First Class | $4,195 | $44,836 |
| Same Day | **–$161** | $27,769 |
| Second Class | $6,738 | $50,309 |
| Standard Class | $14,800 | $150,392 |

* **Standard Class** was the most used and most profitable shipping method.
* **Economy** shipping led to a loss despite having decent sales volume.

**Recommendation**: Assess Economy shipping costs and pricing — either revise logistics contracts or offer it only for high-margin items.

**🧠 Overall Insights**

* **High sales ≠ high profit**: The Corporate segment and Economy shipping exemplify this.
* **Profitability is regional**: Focus on boosting underperforming regions.
* **Segment targeting works**: Home Office has strong returns — consider specialized marketing.
* **Shipping methods affect the bottom line**: Low-profit delivery methods need optimization.

**✅ Recommendations Summary**

| **Area** | **Action Item** |
| --- | --- |
| Product Strategy | Focus on top sub-categories, optimize underperformers |
| Customer Strategy | Retarget Home Office segment, review Corporate pricing |
| Regional Focus | Explore performance blockers in South and Central |
| Logistics | Reduce or limit Economy shipping to profitable use cases |
| Monthly Review | Investigate reasons for losses in April. |

**🛠 Tools & Techniques Used**

* **Microsoft Excel**:
  + Pivot Tables & Pivot Charts
  + Slicers (interactive filters)
  + Custom Data Visualizations
  + Conditional Formatting
  + KPI Cards
  + Dashboard Design using grouped shapes and icons

**📂 Files Included**

* US\_Ecommerce\_Sales\_Dashboard\_2020.xlsx – Fully interactive Excel dashboard with slicers and charts.
* dashboard-preview.png – Screenshot of the dashboard for quick viewing.

## 👨‍💻 Author

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