

# Data visualization

## 1. Choose the Right Chart for the Data

- **Numerical Trends (Over Time):** Line charts
- **Comparisons (Categories):** Bar charts
- **Part-to-Whole Relationships:** Pie charts (if few categories) / Stacked bar charts
- **Distributions:** Histograms / Box plots
- **Correlations:** Scatter plots
- **Geospatial Data:** Maps



## 2. Avoid Clutter and Overuse of Colors

- **Limit colors** to a consistent palette (3-5 colors max).
- Remove unnecessary gridlines, borders, and labels.
- Use white space effectively to avoid a crowded dashboard.

## 3. Highlight Key Takeaways

- Use **annotations, bold text, or callouts** to emphasize insights.
- Place the most important charts **at the top or left** (eye-tracking principle).
- Consider **conditional formatting** (e.g., color-highlighting outliers).

## 4. Add Context to Each Chart

- Include a **clear title** (e.g., "Sales Growth by Region (2020-2023)").
- Add a **short description** explaining the chart's purpose.
- Use **axis labels, legends, and units** properly.

## 5. Focus on Business Insights, Not Just Visuals

- Ask: **"What decision can be made from this data?"**
- Example:
  - Instead of just showing "Sales dropped in Q4," explain **why** (e.g., "Supply chain disruptions led to a 15% decline").
- Use **KPIs (Key Performance Indicators)** where relevant (e.g., YoY growth, profit margins).

## 6. Create a Summary Slide/Storyboard

- **Structure your story:**
  1. **Introduction** (Objective & Dataset Overview)
  2. **Key Findings** (Main insights with supporting visuals)
  3. **Recommendations/Actions** (What should stakeholders do next?)
- Use a **narrative flow**: Problem → Analysis → Solution.

# Shipping Performance Overview: Country, Product & Time Trends

Period Analyzed: Jan–July 2022

## Executive Summary

- Australia leads in total boxes shipped, indicating strong market demand.
- Products like “50% Dark Bites” and “Smooth Silky Salty” show high shipping volumes — strong preference or top sellers.
- Peak shipment revenue occurred in **March 2022**, highlighting seasonal demand.
- February vs. March comparison shows mixed growth across product lines.

## Key Visuals and Business Insights

Chart	Insight
Sum of Boxes Shipped by Country	Australia and Canada dominate shipping volumes. Opportunity to expand in underperforming countries like New Zealand.
Sum of Boxes Shipped by Product	Certain products have extremely high shipping rates — important to validate if demand matches inventory and marketing focus.
Avg Amount Over Time (Jan–Jul)	March is a revenue peak; decline in May/June suggests reviewing promotions, pricing or logistics.
Feb vs. March Product Shipping	“After Nines” and “White Choc” showed growth in March, while others plateaued — suggests marketing or seasonality impact.

## Strategic Takeaways

- **Targeted Expansion:** Consider promotional campaigns in India and New Zealand to grow market share.
- **Product Optimization:** Focus inventory and marketing on top 5 high-volume products.
- **Seasonal Planning:** Reinforce logistics before Q1 peaks based on March trend.
- **Compare Month-to-Month Growth:** Track top products over time to detect momentum shifts.