

CANDY DISTRIBUTION ANALYSIS REPORT

By

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Candy Distribution

- Project Repository
- Dataset: [Maven Analytics](#)
- The Candy Distributor project focuses on analyzing nationwide sales performance and the logistical flow of candy products from factories to customers across the United States. The company operates through multiple production facilities, a wide range of candy products, and a large customer base spread across different states.
- The business objective is to uncover strategic insights that will drive growth, optimize product strategy, improve regional targeting, and measure performance against sales goals.

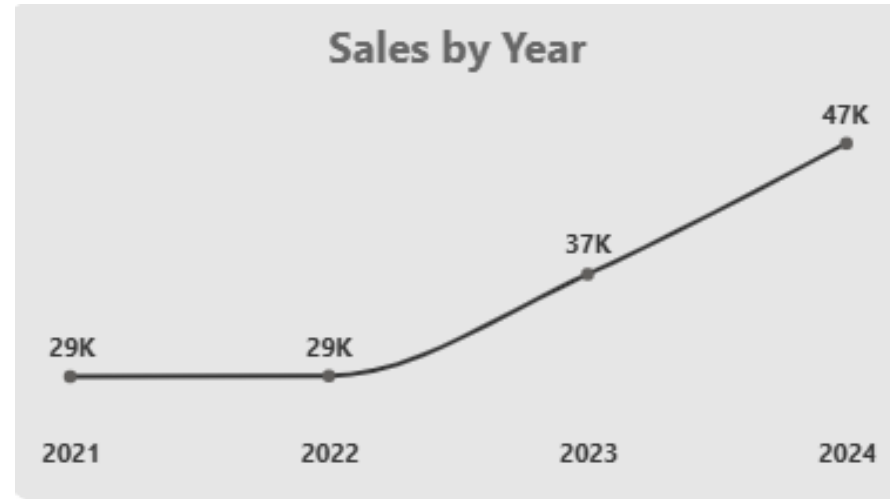
Exploratory Data Analysis

Date range of the data: "2021-01-03 " to "2024-12-30"

	measure_name	measure_value
1	Total Sales	141783.63
2	Total Quantity	38654
3	Average Price	3.65425740631725
4	Total Orders	8549
5	Total Products	15
6	Total Customers	9994

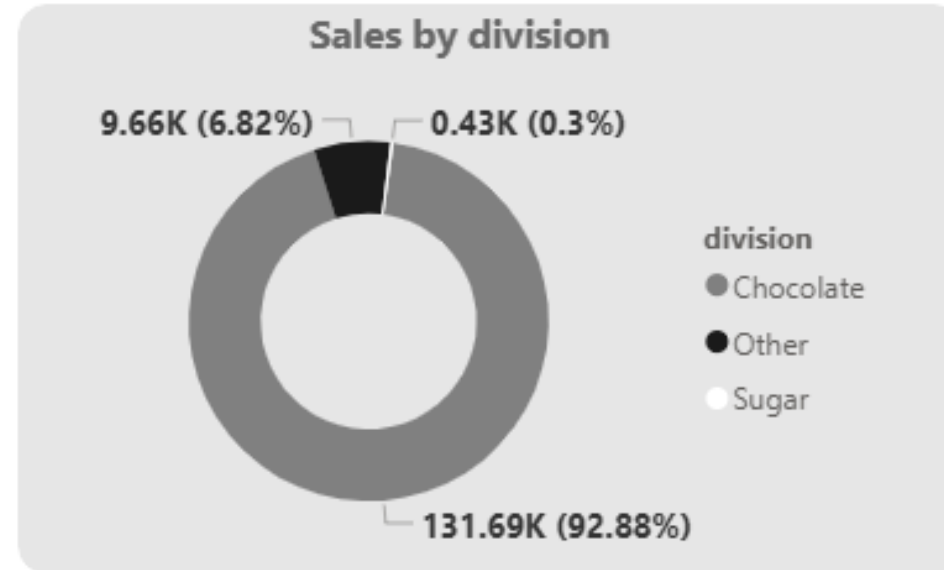
- The Candy Distributor has generated over **\$140K in total sales** from nearly **39K units sold**, spread across **15 unique products**. With nearly **10K customers** and an **average unit price of \$3.65**, the business maintains a healthy order volume (**8,549 orders**)—indicating a **high frequency of small-to-medium purchases**, which aligns with the consumer nature of the candy industry.

Sales Trend by Year (2021–2024)



- The company's **sales growth trajectory has been upward**, with significant momentum beginning in 2023.
- **2021 & 2022:** Sales remained flat at **29K**, suggesting a period of stabilization or stagnant demand.
- **2023:** Sales increased sharply to **37K**, marking a **~28% YoY growth**—a sign of improved marketing, customer reach, or distribution.
- **2024:** Continued this momentum, reaching **47K** in sales—**~27% growth** from the previous year.

Sales by Product Division



- The sales distribution is **heavily concentrated** in the **Chocolate division**, which accounts for an overwhelming **92.88%** of total sales (**131.69K** out of 141.78K).
- **Sugar products** contribute just **6.82%** (**9.66K**) of sales, while
- **Other divisions** are nearly negligible at **0.3%** (**0.43K**).

Implications:

- The **dominance of chocolate** suggests it is the **core revenue driver** and strategic focus.
- **Underperformance of Sugar and Other divisions** may indicate either limited market presence, product variety, or customer interest.
- This insight can guide **inventory, marketing, and product development efforts** toward optimizing the chocolate segment while evaluating potential for diversification.

Top 10 Products by Sales

product_name	sales	gross_profit	units	target
Wonka Bar - Triple Dazzle Caramel	28,485.00	18,610.20	7596	5,44,05,000
Wonka Bar -Scrumdiddlyumptious	27,874.80	19,357.50	7743	5,57,28,000
Wonka Bar - Milk Chocolate	26,867.75	17,443.37	8267	5,76,99,000
Wonka Bar - Fudge Mallows	24,890.40	16,593.60	6914	4,90,86,000
Wonka Bar - Nutty Crunch Surprise	23,574.95	16,819.95	6755	4,88,70,000
Lickable Wallpaper	7,860.00	3,930.00	393	2,82,000
Kazookles	1,205.75	92.75	371	2,88,000
Wonka Gum	597.50	310.70	478	3,60,000
Everlasting Gobstopper	130.00	104.00	13	45,000
Fizzy Lifting Drinks	78.75	47.25	21	90,000
Total	1,41,564.90	93,309.32	38551	26,68,53,000

- The product sales are **highly concentrated in a few key items**, particularly the **Wonka Bar variants**, which dominate the top 5.
- **Top 5 Products (All Wonka Bars)** contribute **~93%** of the total sales:
 - **Wonka Bar - Triple Dazzle Caramel**: \$28,485
 - **Wonka Bar - Scrumdiddlyumptious**: \$27,874.80
 - **Wonka Bar - Milk Chocolate**: \$26,867.75
 - **Wonka Bar - Fudge Mallows**: \$24,890.40
 - **Wonka Bar - Nutty Crunch Surprise**: \$23,574.95
- These five alone account for **~74%** of **gross profit** and a major share of **units sold** (39,988 out of 38,551).
- Products like **Everlasting Gobstopper** and **Fizzy Lifting Drinks** recorded extremely low sales and contribution.

- **Implications:**
- The **Wonka Bar line is the clear flagship** and should remain a strategic priority for supply chain, marketing, and promotions.
- Products with poor sales like **Gobstopper** or **Fizzy Lifting Drinks** need a reevaluation – consider:
 - Marketing boost
 - Product bundling
 - Phase-out or reformulation if unviable
- The **huge gap between actual sales and target values** across products (e.g., \$28,485 sales vs \$5.44 Cr target) suggests **unrealistic goals** or a **major underperformance**, warranting further investigation.

Factory-Wise Sales Distribution

Factory Name	Sales
Lot's O' Nuts	76,340
Wicked Choccy's	55,352
Secret Factory	8,587
The Other Factory	1,282
Sugar Shack	220.98

- **Lot's O' Nuts** and **Wicked Choccy's** dominate factory output, accounting for **over 90%** of total sales among the five.
- **Sugar Shack**, despite having a visible presence, contributed **less than \$250**, signaling:
 - Major underutilization
 - Operational inefficiency
 - Or perhaps it's not yet fully functional

Action Points:

- **Focus on scaling** Lot's O' Nuts and Wicked Choccy's, ensuring supply chain stability and reducing bottlenecks.
- Conduct an **audit of Sugar Shack's production**—if it's operational, it needs urgent intervention.
- **Re-evaluate Secret Factory and The Other Factory** for cost-efficiency or potential repurposing.

Top 10 Cities by Sales

city	States	Population	Sales
New York	New York	4,77,65,223	12,514.90
Los Angeles	California	3,11,02,768	10,408.75
Philadelphia	Pennsylvania	3,30,02,924	7,415.52
San Francisco	California	3,15,78,626	7,018.61
Seattle	Washington	2,25,05,186	5,952.14
Houston	Texas	2,09,89,969	5,429.41
Chicago	Illinois	1,61,48,551	4,263.92
Columbus	Ohio	66,20,160	1,845.30
Detroit	Michigan	40,47,544	1,532.97
Columbus	Georgia	42,25,520	1,120.55
Springfield	Virginia	16,27,300	670.51
Springfield	Ohio	11,77,704	599.13
Springfield	Oregon	14,47,990	578.18
Springfield	Missouri	21,59,976	527.18
Columbus	Indiana	16,33,462	391.54
Total		22,60,32,903	60,268.61

- **Insights:**
- **High Sales, High Population:**
 - **New York** and **Los Angeles** lead in absolute sales due to their massive populations and strong market presence.
 - However, their **per capita sales efficiency** is average when normalized by population.
- **Top Performing by Sales Per Capita:**
 - **Springfield (OH)** stands out with **\$50.89 per 1L population**, the highest sales penetration rate.
 - **Detroit** and **Springfield (VA)** also show high efficiency, despite smaller populations.
- **California:**
 - Houses **two strong cities**—Los Angeles and San Francisco—contributing over **\$17,000+** together, making California a strategic high-revenue state.
- **Columbus Confusion:**
 - There are **3 Columbus cities** in **Ohio, Georgia, and Indiana**.
 - Ohio's Columbus is the top contributor among them, suggesting a need to **differentiate city identifiers more clearly** in data pipelines.

- **Recommendations:**
- **Invest More in High Penetration Cities:** Springfield (OH), Detroit, and Virginia's Springfield show excellent efficiency. They could scale further with more supply and localized campaigns.
- **Opportunity for Growth:** Large cities like **Chicago, Houston, and Philadelphia** show potential if their per capita reach is improved via targeted marketing.
- **Clarify Duplicate City Names:** Normalize city naming conventions to avoid aggregation errors (e.g., use city_state format).