



CraftFlow

CONSULTING



Tapping into Trends: Iowa Liquor Sales Analysis for Market Entry

DNSC 6305 - Data Management for Analytics Fall 2024
Group 5

Introduction



About the client:

Northfield Holdings Ltd., a leading Midwest liquor store operator, is expanding into Iowa. The company aims to boost profitability, optimize resources, and identify key markets using data-driven insights.

Why Iowa?

- Controlled State with Transparent Sales Data
- Underserved Markets
- Strategic Location
- Strong Economic Indicators
- Emerging Consumer Trends

The Analytical Journey

Data Source	Dataset Reasoning	Key Objectives	Dataset Details	Data Wrangling
<ul style="list-style-type: none">Collected by Iowa Department of Revenue, Alcoholic BeveragesCovers Nov 1, 23 - Oct 31, 24	<ul style="list-style-type: none">Sales Trends by RegionProduct PreferencesSeasonalityStore Performance	<ul style="list-style-type: none">Product AnalysisSeasonal Trend AnalysisRegional Trends Analysis	<ul style="list-style-type: none">2,586,265 rows24 ColumnsFormat: CSVSize: 655 MBUpdated: 12/05/2024	<ul style="list-style-type: none">Database Modeling: Shell scripting + SQLSupport commands: PythonVisualization: Power BI

Dimensional Modeling

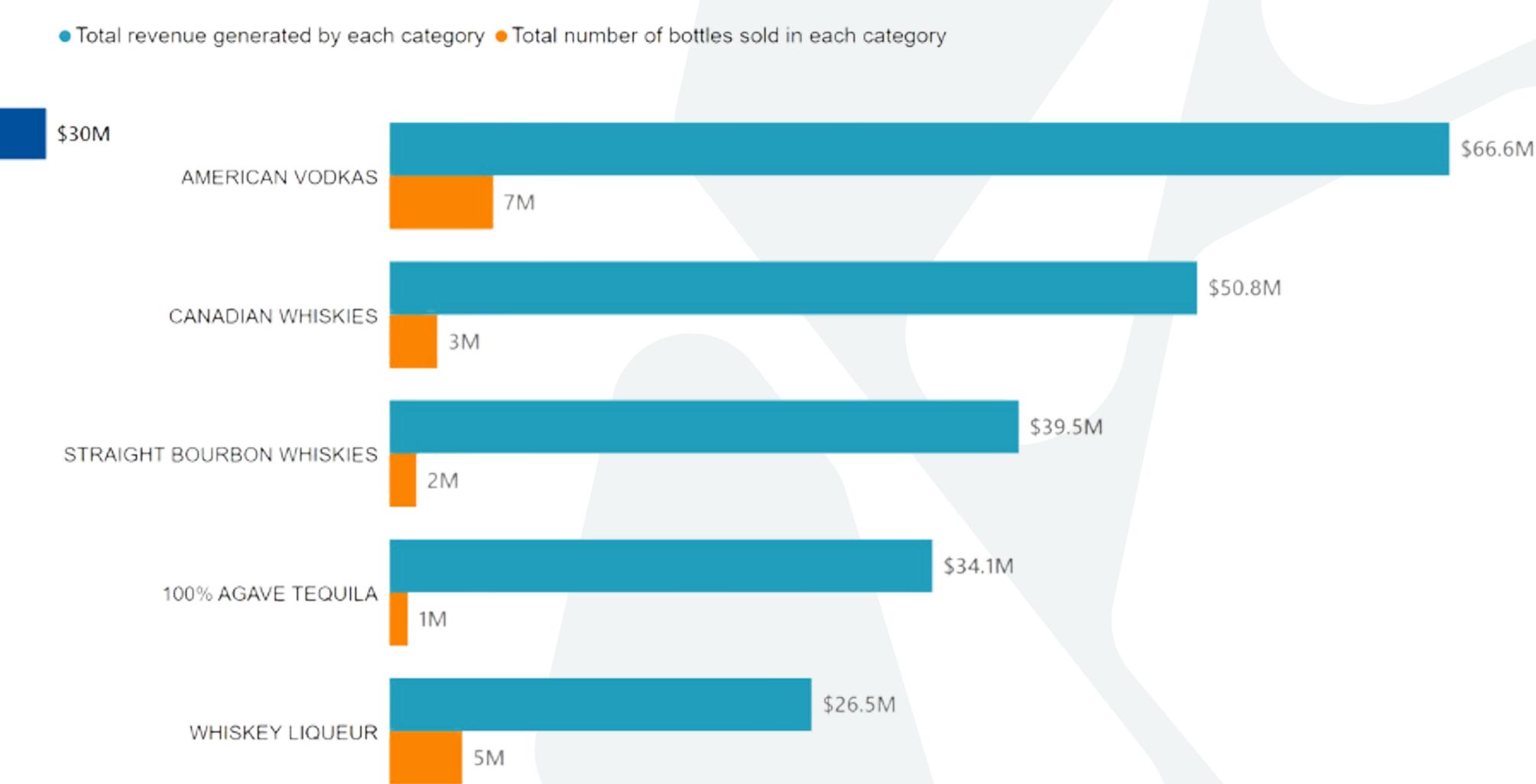
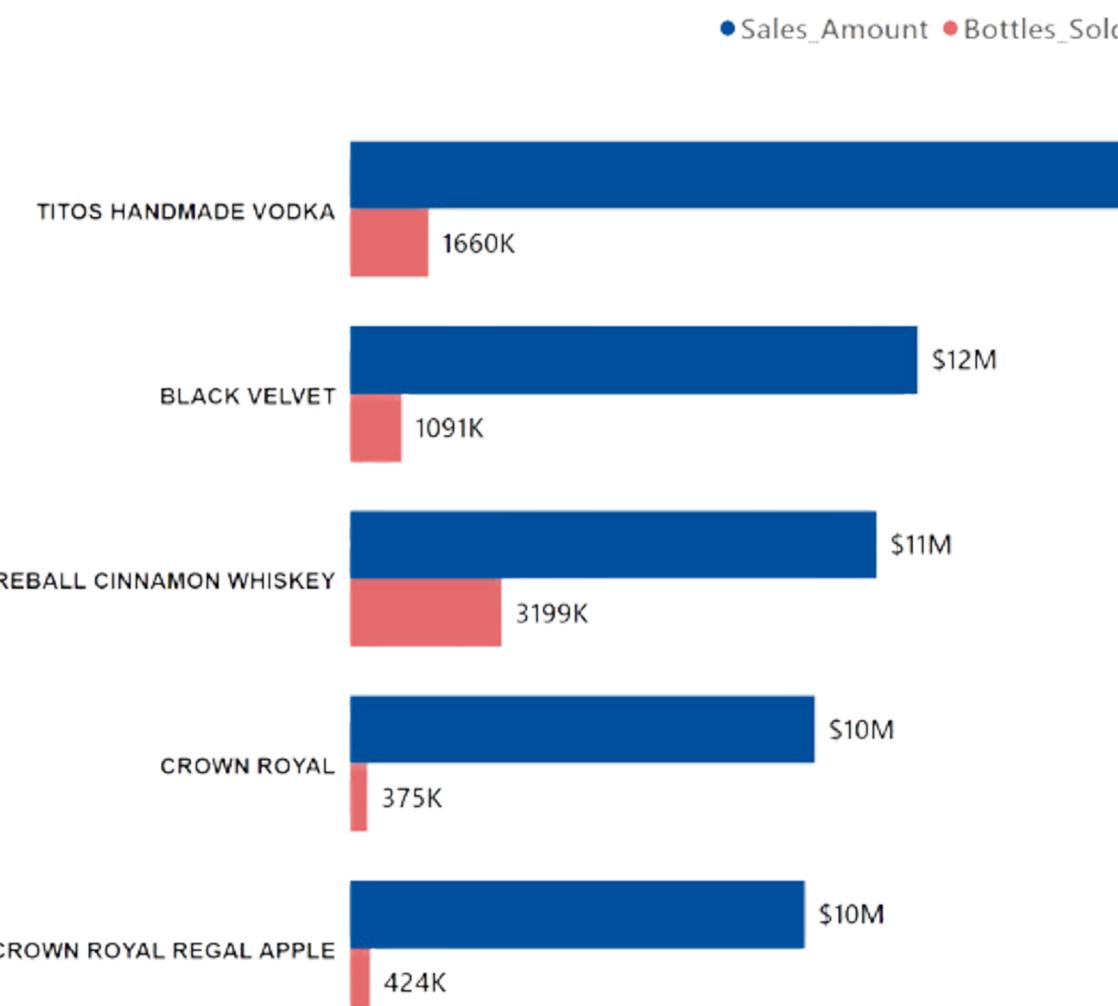


Legend

- + One
- ← Many
- ++ One (and only one)
- + Zero or one
- ← One or many
- ← Zero or many

Exploratory Data Analysis

Best-Performing Products and Categories



Top Products:

Tito's Handmade Vodka
Black Velvet Canadian Whiskey
Fireball Cinnamon Whiskey

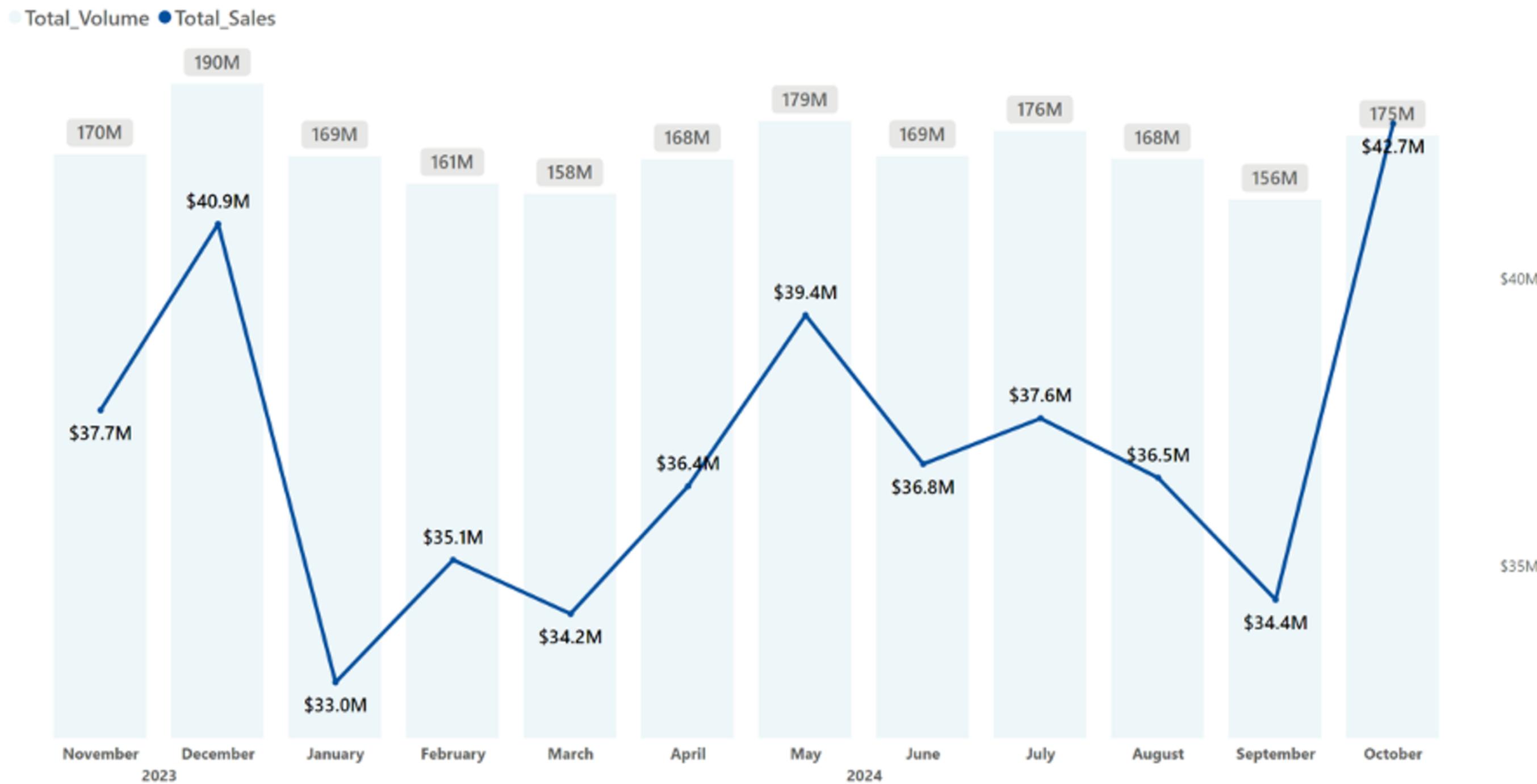
Top Categories:

American Vodkas
Canadian Whiskies
Straight Bourbon Whiskies



Exploratory Data Analysis

How Seasonality and Holidays Impact Sales



Holiday & Weekend Impact:

- Juneteenth, Independence Day, Veterans Day
- Weekdays outperforms weekends

Best Performing during Holidays:

Tito's Handmade, Crown Royal, Black Velvet, Fireball

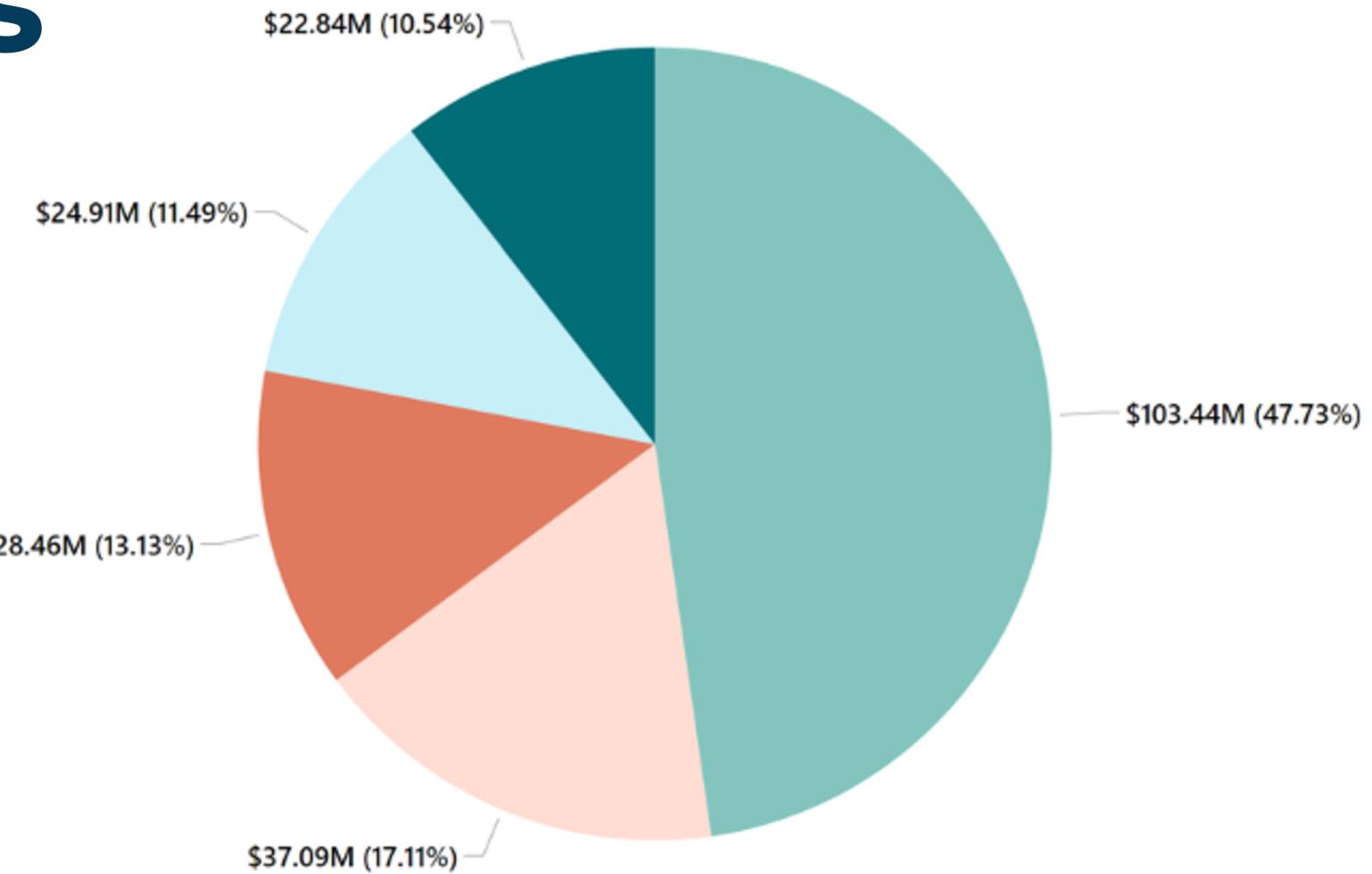


Exploratory Data Analysis

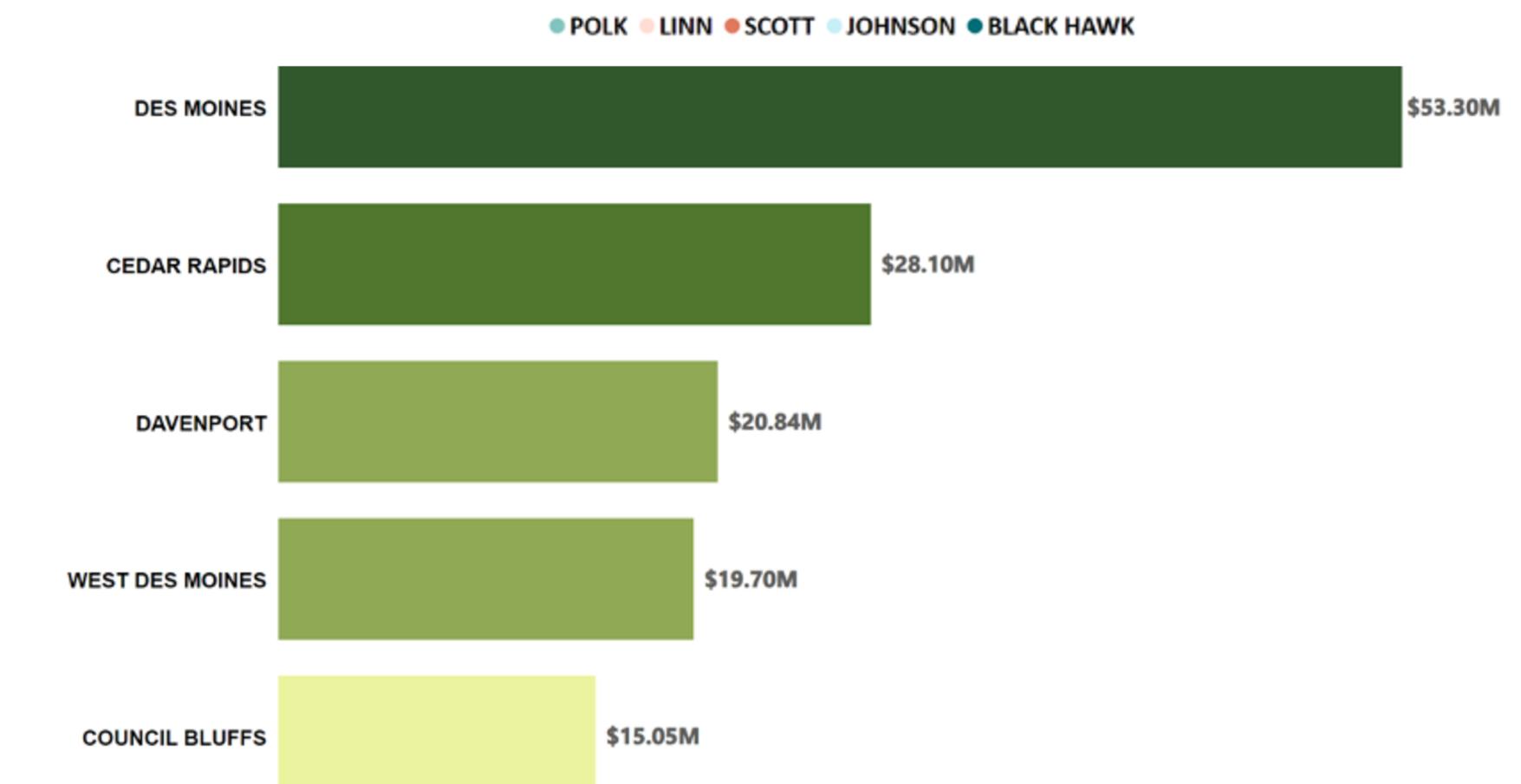
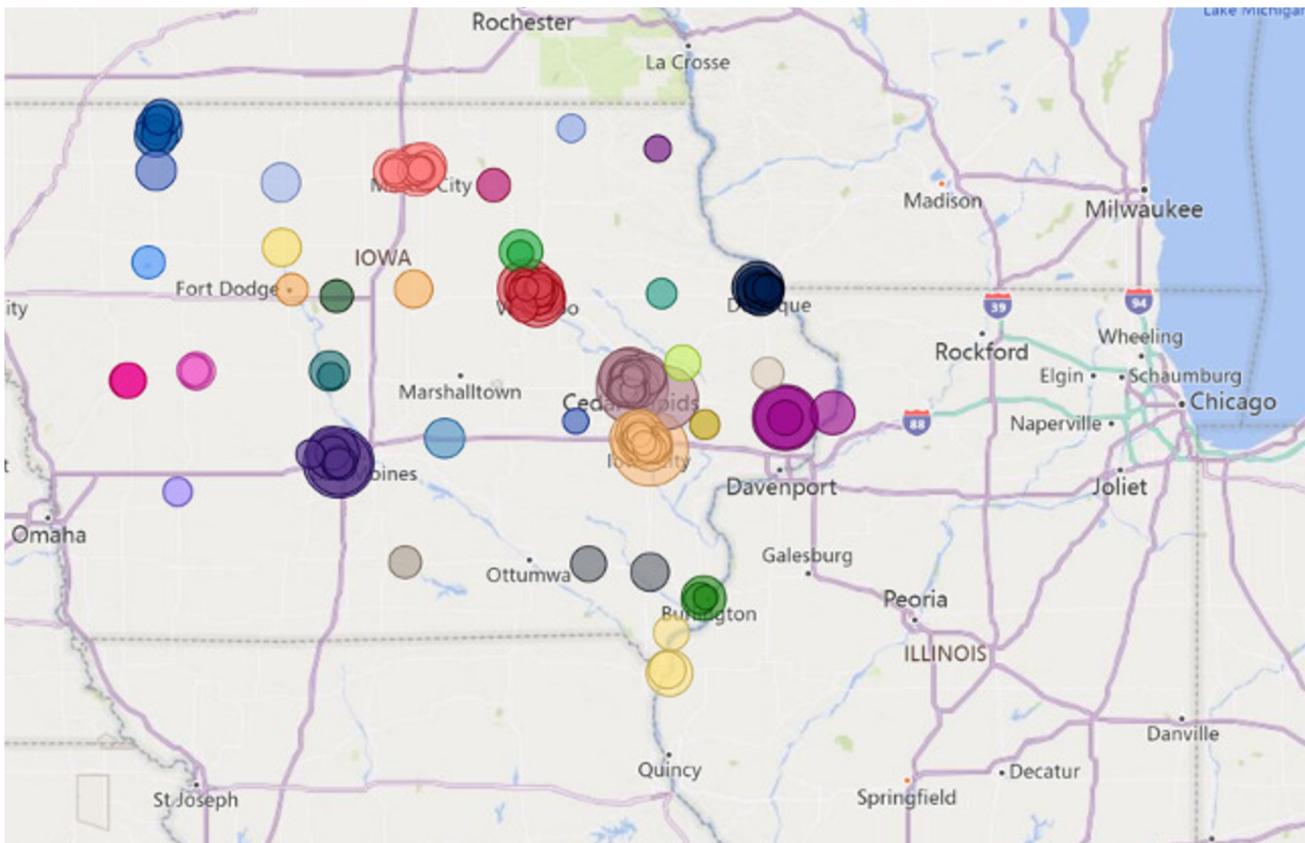
Regional Performance

- Polk County leading in sales and bottle volume.
- Smaller cities present untapped market opportunities.
- Underserved Areas: Mount Vernon, Arnolds Park, LeClaire and Floyd.

CITY	STORE COUNT	TOTAL SALES	AVERAGE SALES
MOUNT VERNON	3	3,498,921.36	1,166,307.12
ARNOLDS PARK	3	1,909,477.13	1,166,307.12
LECLAIRE	1	264,106.44	264,106.44



- Distribution centre can be focussed on the most popular counties.



Recommendations

- **Target key cities** like Des Moines, Cedar Rapids, and Davenport.
- Expand into **top performing counties**: Polk, Linn, Scott, and Johnson.
- **Capitalize on Bestselling Products** like Tito's Vodka, Fireball Whiskey, Black Velvet.
- **Prioritize high-demand categories** such as American Vodkas and Canadian Whiskies.
- **Focus promotions during Holidays** such as like Juneteenth, Independence Day, and Veterans' Day.
- **Midweek focus** - Tuesday to Thursday.
- **Explore the “untapped cities”** such as Mount Vernon or Arnolds Park.
- **Establish a Centralized Distribution** near Des Moines or Cedar Rapids to reduce logistics costs.



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