

Chocolate Sales case study Report

1. Project Overview

In this project we analyze the sales dataset using SQL server and OSEM, The goal is to uncover revenue pattern and product trends ,The company wants to optimize products sales and identify top-performing salespeople and countries

The dataset includes transaction records which contains: Product name, Quantity and Sales person Name

2. Business Problem

A chocolate company was struggling to understand why some products were thriving while others were failing. Sales teams operated blindly. No clarity on which reps drove revenue or which countries outperformed. Inventory planning felt like a guessing game.

3. Business Requirements

Better decision making around:

- Revenue generation
- Country-wise and product-wise performance
- Inventory planning
- Sales team evaluation

4. OSEM Framework

Obtain: Dataset used installed from kaggle [Dataset: Chocolate sales data (827 rows, 6 attributes)].

Scrub: cleaning performed by Removing \$symbols from amount column, Converting text dates to Date format, and finally ensuring numeric types.

Explore: Used SQL Server to run queries to analyze performance, growth and correlation.

Model: Not applicable.

Interpret: Turned SQL results into insights to support business decisions

5. Smart Analysis

- Specific: Identify top-performing products, salespeople, and markets to boost chocolate sales.
- Measurable: Analyzed ~827 records, using KPIs like revenue, product efficiency, and country-wise performance.
- Achievable: Found that 3 products and 2 salespeople account for 25%+ of revenue.
- Relevant: Insights can directly influence marketing, training, and inventory strategies.
- Time bound: Dataset covered January–August 2022 for immediate quarterly planning.

6. Stakeholder Questions & It's Insights

1. What are top selling products?
 - . Smooth sliky salty -> Revenue: \$349,692
 - . 50% Dark Bites -> Revenue: \$341,712
 - . White Choc -> Revenue: \$329,147
 - . Peanut Butter Cubes -> Revenue: \$324,842
 - . Eclairs -> Revenue: \$312,445
2. Which months perform best?
 - . Jan -> Revenue: \$896,105
 - . Jun -> Revenue: \$865,144
 - . Jul -> Revenue: \$803,425
3. Who are the most efficient salespeople?
Highest revenue per box:
 - . Rafaelita Blaksland (\$48.93)
 - . Van Tuxwell(\$44.59)
 - . Madelene Upcott(\$43.43)
4. Which country performs best overall and which is underperforming?
 - . Australia brings the most revenue
 - . New Zealand brings the lowest
5. What's the top product per country?

Country	Product	TotalRevenue
. Australia	50% Dark Bites	\$89222
. Canada	Smooth Sliky Salty	\$68257

. India	Eclairs	\$79009
. New Zealand	Mint Chip Choco	\$86709
. UK	Peanut Butter Cubes	\$79695
. USA	Raspberry Choco	\$83524

6. What are our high revenue per box products?

Product	TotalRevenues	TotalBoxes	RevenuePerBox
. Almond Choco	\$277536	6736	\$41.20
. White Choc	\$329147	8240	\$39.95
. Smooth Sliky Salty	\$349692	8810	\$39.69

7. Who underperformed last month?

Sales_person	TotalBoxes
. Jehu Rudeforth	213
. Roddy Speechley	311
. Gigi Bohling	398

8. Where are we growing recently?

Country	RevenueGrowth
. Australia	\$5,439
. New Zealand	\$25,200

9. What is the top salesperson for each product

Product	Salesperson	TotalSales
50% Dark Bites	Van Tuxwell	\$32795
70% Dark Bites	Madelene Upcott	\$33390
85% Dark Bars	Camilla Castle	\$30177
99% Dark & Pure	Oby Sorrel	\$27545
After Nines	Kaine Padly	\$31374
Almond ChocoVan	Tuxwell	\$20328
Baker's Choco Chips	Dennison Crosswaite	\$33586
Caramel Stuffed Bars	Ches Bonnell	\$26110
Choco Coated Almonds	Ches Bonnell	\$42854
Drinking Coco	Kelci Walkden	\$32921
Eclairs	Kaine Padly	\$28189
Fruit & Nut Bars	Gunar Cockshoot	\$34958
Manuka Honey Choco	Mallorie Waber	\$24675
Milk Bars	Jehu Rudeforth	\$30408
Mint Chip Choco	Jan Morforth	\$37030
Orange Choco	Kelci Walkden	\$25543
Organic Choco Syrup	Van Tuxwell	\$45451
Peanut Butter Cubes	Ches Bonnell	\$35294

Raspberry Choco	Barr Faughny	\$30499
Smooth Sliky Salty	Beverie Moffet	\$33901
Spicy Special Slims	Gunar Cockshoot	\$40537
White Choc	Beverie Moffet	\$32221

10. Are we overly dependent on a few salespeople?
. 15.42% of all revenue comes from Top 3 salespeople which indicates over-reliance risk.
11. Is shipping more boxes linked to more revenue?
. Correlation = -0.02 (approximately no correlation) >> More Boxes ≠ More Revenue
12. What is the most sold product last month ?
. 85% Dark Bars with total quantity 97209
13. What is the average revenue per box shipped for each product?
14. Are there products sold by only one salesperson?—
15. Who are the salespeople with above-average revenue?
. about 6 sales generate above average revenue
16. What is the total revenue per country per month?
17. Which countries have underperforming sales?

Country	TotalRevenue
. New Zealand	\$950418
. Canada	\$962899
. USA	\$1035349

18. Where are we growing recently?

Country	PrevMonthRevenue	CurrMonthRevenue	RevenueGrowth
. New Zealand	\$82712	\$107912	\$25200
. Australia	\$131082	\$136521	\$5439

7. Conclusion & Recommendations

What uncovered:

- Strong performance in specific countries & by specific staff
- Certain months consistently outperform others
- Regional expansion like investing more in Australia and New Zealand

Recommendations:

- Run major promotions and campaigns in Jan, Jun, Jul
- Focus marketing on top 3 products
- Reduce over-reliance on top salespersons
- Focus inventory and Marketing on top products