SALES PERFORMANCE ANALYSIS

Project Portfolio





PROFESSIONAL BACKGROUND

As a Data/BI Analyst with Bachelor's degree in Chemical Engineering, I have developed a strong foundation in data analysis, statistical modeling, and programming. My expertise lies in using data analytics to solve complex business problems and drive key business decisions.

I possess extensive knowledge and handson experience with various data analytics tools such as Excel, Power BI, SQL, Tableau, Azure, Power Automate, and SSIS. I have proficiency in using Excel for data analysis, data visualization, and creating pivot tables, charts, and graphs.

In addition to Excel, I have experience working with Power BI and Tableau for data visualization and reporting. I am skilled in developing dashboards and interactive reports that provide actionable insights to business stakeholders. I have also worked with SQL for SSIS ETL and data manipulation from relational databases.

Overall, my background as a Data Analyst with a Chemical Engineering degree has equipped me with strong problem-solving skills, attention to detail, and the ability to communicate complex data-driven insights to business stakeholders.



OUTLINE

Professional Background	2
Table of Content	3
Case Study	4
The Problem	5
The Question	6
Approach and Analysis	7
Findings	8
Final Results	12
Conclusion	13



In a hypothetical situation, as a Data Analyst working remotely for an organisation...

- I have been tasked to carry out performance analysis on the company's sales data to identify the top-performing salespersons and customers to increase the business's revenue.
- Note that performance analysis and evaluations can be used to judge the level of work each salesperson gives and their diligence toward the company's mission and goals. The essence of this project is to evaluate, recognize achievements, evaluate sales progress, and design ways to further improve performance and opportunities to identify and increase revenue.

The Problem

A PROBLEM WELL STATED IS A PROBLEM HALF-SOLVED

- What does the business want to achieve? The business wants to increase revenue by identifying topperforming salespersons and customers.
- What is the cause of the problem? The problem is a lack of identification and recognition of topperforming salespersons and customers.
- What data should be collected? Sales data including revenue, units sold, customer information, and salesperson information.
- What will be the impact if the problem is not solved? The business may miss out on potential revenue growth opportunities and risk losing top-performing salespersons and customers.

The Question

ASKING QUESTIONS IS THE BEST WAY TO BEGIN CHANGE

- 1. Who are the top ten performing salespeople?
- 2. Who are the top ten customers of the company?
- 3. How many sales did the company generate within the 3 years period, 2018, 2019, and 2020?
- 4. Which County generated more sales?
- 5. Which products generated more sales and profit
- 6. How much sales and profits did the company generate

Approach & Analysis

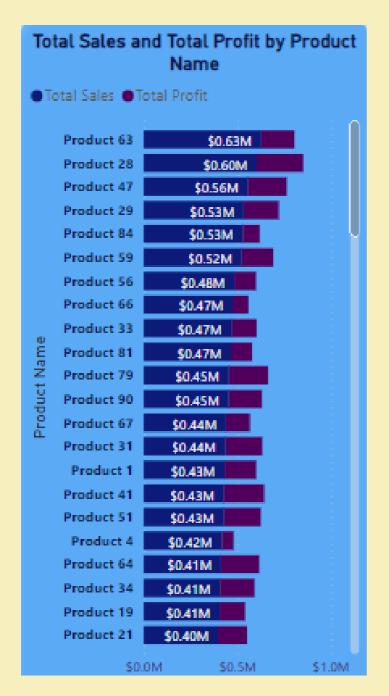
EVERY JOURNEY NEEDS A FIRST STEP

The steps taken during the analysis

- The sample dataset was downloaded online from a training course I participated in with "Enterprise DNA" in an excel sheet format.
- Data consolidation was carried out to ensure that the data is clean of blanks and duplicates.
- The excel data was uploaded to Microsoft Power BI, and the data were transformed in the power query.
- Created a Date table in the query editor before loading it into the Power BI desktop
- Created the data model
- Deployed DAX measures for calculations to get the Total Sales, Total Profit & percentage, Total transactions, and Quantity of products sold.
- Employed graphical visualization to develop a dashboard that will help us identify the key performance indicators to answer questions.

THE GOAL IS TO TURN DATA INTO INFORMATION, AND INFORMATION INTO INSIGHT

Fig 1: Total Sales and Profit by Product



The analysis of sales data for 101 products revealed that there was a wide range of sales and profit margins. The total sales ranged from \$7,805 to \$628,320, while total profit ranged from \$2,899 to \$247,808. However, it was observed that for Product 63, the total sales and total profit diverged significantly. The sales were \$452,370 higher than the total profit, indicating potential issues with cost management or pricing.

On the other hand, Product 28 emerged as the most profitable product generating the highest amount of profit among all 101 products. Further analysis could be conducted to identify the reasons behind the success of Product 28 and to leverage those insights to improve the performance of other products.

Table 1: Top 10 Salespeople

Salesperson Name	Quantity Sold	Total Sales	Total Cost	Total Profit
Kenneth Bradley	552	\$678,815	\$451,506	\$227,309
Ryan Welch	529	\$668,305	\$446,666	\$221,639
Bobby Russell	515	\$653,277	\$439,028	\$214,249
Brian Davis	492	\$638,742	\$434,796	\$203,946
Patrick Ruiz	521	\$628,457	\$426,145	\$202,312
Martin Perry	492	\$626,396	\$421,723	\$204,673
Kenneth Fields	507	\$618,409	\$426,414	\$191,995
Kevin Butler	477	\$604,929	\$406,424	\$198,505
Scott Mason	471	\$604,278	\$400,430	\$203,848
Ernest Wheeler	493	\$602,977	\$403,491	\$199,486

In analyzing the sales data for 45 salespersons, it was found that the sales and profit margins varied significantly. The total sales ranged from \$435,802 to \$678,815, while total profit ranged from \$138,352 to \$227,309.

Salesperson Kenneth Bradley emerged as the top-performing salesperson with the highest sales of \$678,815, which was 55.76% higher than the lowest sales of \$435,802 generated by Carl Elliott. Moreover, Kenneth Bradley also generated the highest profit at \$227,309, which was 64.30% higher than the lowest profit of \$138,352 generated by Larry Castillo.

The significant difference in sales and profit generated by salespersons indicates a potential for improvement in training, incentives, or management to enhance the overall sales performance of the team. Further analysis could be conducted to identify the factors contributing to the success of top-performing salespersons like Kenneth Bradley and replicate those strategies across the sales team.

Table 2: Top 10 Customers

Customer Name	Total Sales ▼	Total Profit
Craig Wright	\$69,689	\$22,630
Ronald Bradley	\$67,824	\$20,702
Brandon Diaz	\$66,242	\$22,797
Craig Mills	\$65,506	\$20,789
Douglas Franklin	\$65,202	\$21,544
Shawn Wallace	\$65,193	\$19,004
Martin Berry	\$64,794	\$23,446
Eric Bradley	\$64,261	\$21,274
Steven Owens	\$63,373	\$23,426
William Andrews	\$62,571	\$19,722

Martin Berry emerged as the highest profit generator for the business with a profit of \$23,446. Interestingly, Steven Owens, who was among the top 10 customers with the highest sales, also generated a high profit for the business. On the other hand, Michael Austin generated the lowest profit at \$2,224.

The analysis indicates that the top customers with high sales may not necessarily translate into high profits for the business. Therefore, it is essential to identify the most profitable customers and develop strategies to increase their sales while maintaining or improving the profit margins. Further analysis could be conducted to identify the factors contributing to the success of top-profit generating customers and replicate those strategies for the other customers.

Fig 2: Sales Distribution by County



An analysis of sales data for 22 counties showed that there were significant variations in the total sales amount. Los Angeles County had the highest sales at \$5,630,203, while San Francisco County had the lowest sales at \$283,790, which was 1,983.93% lower than the highest sales.

The analysis suggests that the geographic location of the business plays a vital role in determining the total sales amount. Factors such as population density, economic activity, and competition could influence the sales performance of a county. Therefore, it is essential to identify the factors that contribute to the success of high-performing counties like Los Angeles and develop strategies to replicate those factors in other counties to enhance sales performance.

Moreover, understanding the sales trends in different counties could help the business allocate its resources efficiently. For instance, if the sales data shows that certain counties have a high potential for growth, the business could consider expanding its operations in those areas to capitalize on the sales opportunity.

Final Result

DATA ARE BECOMING THE NEW RAW MATERIAL FOR BUSINESSES

Fig 3: Dashboard



From the dashboard;

- The top 10 salespeople are; Kenneth Bradley, Ryan Welch, Robby Russell, Brian Davies, Patrick Ruiz, Martin Perry, Kenneth Fields, Kevin Butter, Scott Mason, and Ernest Wheeler.
- The top 10 customers of the company are; Craig Wright, Ronald Bradley, Brandon Diaz, Craig Mills, Douglas Franklin, Shawn Wallace, Martin Berry, Eric Bradley, Steven Owens, and William Andrews.
- In 2018, the business generated \$12M sales. In 2019, it generated \$12M sales as well while in 2020, the sales declined to \$2M.
- Los Angeles County generated the highest sales.
- Product 63 has the highest number of sales while product 28 has the highest profit.
- The company generated a total number of \$26M sales and a total profit of \$17M which is 33% of the sales.



In conclusion, the analysis of the sales data reveals significant variations in sales and profit margins across the products, salespersons, customers, and counties. In particular, the analysis highlights the potential for improvement in cost management, pricing, sales training, incentives, and management to enhance sales performance.

Moreover, it is crucial to identify the most profitable products, customers, and counties and develop strategies to increase their sales while maintaining or improving the profit margins. Understanding the factors contributing to the success of top-performing products, salespersons, customers, and counties could help the business replicate those strategies and allocate its resources efficiently.

Therefore, further analysis could be conducted to gain more insights into the factors driving sales and profits and develop actionable recommendations to improve the overall sales performance of the business.

THE END

Madu C. Justin
www.linkedin.com/in/madujustin