

Using Al in Data Analysis



Analyzing Sales Data

Product Sales

- Excel is a powerful tool, and if you know me, you know I'm a "freak in the Sheets".
- ChatGPT takes it to another level and saves tons of time when analyzing data.
- Ticket Report
 - I need to know how many of each product we sold for the Valentine's Day holiday.
 - Typically I take about 30 minutes of formatting data and using complex formulas to get totals of each item.
 - ChatGPT did it all for me in about 30 seconds

- Upload the spreadsheet from your POS
- Explain the Source Data
- Explain what vou want returned
- Explain any specifics about the data or how you want it returned

Explain the Source Data

I need vou to look at the attached ticket report from my recent Valentine's day holiday. Column A shows the order number. Column B shows the product code.
Column C shows the auantity for each individual order.
Column D shows the product description, and Column F shows the revenue for that individual transaction.

- Explain what you want returned
 - I would like vou to summarize the data in the following format In the first column, I want the product code
 - second column a product description
 - in the third column. I want a total auantity of each product sold, fourth column should show total sales in dollars of each product sold.

- Evolgin any specifics about the data or how you want it returned
 - (there should only be one occurrence of each product code in what you return)
 - descriptions but use your discretion as to the simplest/most commonly occurring form of the product description based on the data)
 - "Order Fatry" or "POS" in column A as well as any rows that have an amount in the Sales Tax column.

I need you to look at the attached ticket report from my recent Valentine's day holiday. Column A shows the order number. Column B shows the product code. Column C shows the quantity for each individual order. Column D shows the product description, and Column E shows the revenue for that individual transaction. I would like you to summarize the data in the following format - In the first column. I want the product code (there should only be one occurrence of each product code in what you return), second column a product description (some product codes may have multiple product descriptions, but use your discretion as to the simplest/most commonly occuring form of the product description based on the data). in the third column. I want a total auantity of each product sold, fourth column ould show total sales in dollars of each product sold I want you to exclude any lines in the summary that have "Order Entry" or "POS" in column A, as well as any rows that have an amount in the Sales Tax column.

BEFORE:

Ticket Type	Customer			Account #	Occasion		Reference		Delivery Date	Total
Trans No.	Product Code	Quantity	Description			Amount	t Discount	Sales Tax		Extension
NORTON'S FL	ORIST									
Order Entry	Andre Walton				Other				02/13/2025	203.45
0895919/1	R12R	1	12 Roses Arrange	d - RED		99.95	0.00		02/10/2020	99.95
0895919/1	BI1	1	Birmingham					18.50		18.50
0895919/1	DC85V	1	Premium DC Boud	quet - Tall & Airy		85.00	0.00			85.00
Order Entry	Cameron Aaron				Holiday				02/14/2025	108.79
0896109/1	VD1	4	Cunidle Deudesens	Variation Dave	•	74.95	0.00		02/14/2025	74.95
0896109/1	SYS DELIVERY	1	Cupid's Daydream	- variation bouq		23.95				23.95
0896109/1	_	1	SYS_DELIVERY			23.95	0.00	9.89		9.89
0896109/1	HW1	1	Homewood					9.89		9.69
Order Entry	Steven Abner				Holiday				02/13/2025	126.95
0894820/1	VD2	1	Forever & Always			84.96	0.00			84.96
0894820/1	SYS_DELIVERY	1	SYS_DELIVERY			24.95	0.00			24.95
0894820/1	TIP	1	SYS SERVICE			6.05	0.00			6.05
0894820/1	BI1	1	Birmingham					10.99		10.99
Order Entry	Dan Adams				Holiday				02/14/2025	139.60
0894665/1	R12HP	1	Long Stemmed Ho	nt Pink Roses - V	•	101.12	0.00		02/14/2020	101.12
0894665/1	SYS DELIVERY	1	SYS DELIVERY			23.95				23.95
0894665/1	DS	1	SYS SERVICE			3.00				3.00
0894665/1	MB	1	Mountain Brook			0.00	0.00	11.53		11.53
									2011112225	000
Order Entry	Elizabeth Adams				Holiday				02/14/2025	220.00
0895973/1	VD8	1	Love Story - Variat	ion Bouquet As		200.00	0.00			200.00
0895973/1	BI1	1	Birmingham					20.00		20.00

AFTER:

Product Code	Product_Description	Total_Quantity	Total_Sales
R12R	Long Stemmed Red Roses - Variation 12 Roses - Product URL bit.ly/42v9Hd4	319	31,400.64
VD4	Bejeweled - Variation Bouquet As Shown - Product URL bit.ly/3DYq4rR	143	13,396.28
VD2	Forever & Always - Valentine's 2025 - Variation Standard - Product URL bit.ly/41ZQyn0	140	11,903.10
LB12	Lover Boy - Variation 12 Roses, 3 Rose Lilies - Product URL bitly.com/2FhmOZn	91	11,403.48
VD1	Cupid's Daydream - Variation Bouquet As Shown - Product URL bit.ly/3HdOBHN	102	7,659.28
TUL30	Mixed Tulips - Variation 30 Tulips - Product URL bitly.com/2GaN4nJ	66	7,230.88
DCX	Designers Choice Bouquet	84	6,711.93
VD3	Kiss From A Rose - Variation Bouquet As Shown - Product URL bit.ly/4j6Jz1w	74	6,304.81
R6R	Half Dozen Roses - Variation Standard - Product URL bitly.com/2GdG35L	96	6,245.36
VD6	Truly Madly Deeply - Variation Bouquet As Shown - Product URL bit.ly/4jakG52	47	5,651.50
R18R	Long Stemmed Red Roses - Variation 18 Roses - Product URL bit.ly/3qoZlhp	35	4,693.90
R24R	Long Stemmed Red Roses - Variation 24 Roses - Product URL bit.ly/3P3zsy1	26	4,637.89
VD5	Sunset Glow - Variation Bouquet As Shown - Product URL bit.ly/4gJ0HsQ	50	4,582.80
R100	100 Red Roses - Variation 100 Red Roses - Product URL bitly.com/2FOrC8z	7	4,255.84
VD9	Wildest Dreams - Variation Bouquet As Shown - Product URL bit.ly/400x27e	25	4,190.99
XR18	Extreme Roses - Variation 18 Rose Bouquet - Product URL bitly.com/2Lgy4rj	21	3,838.87
XR24	Extreme Roses - Variation 24 Rose Bouquet - Product URL bit.ly/3Wdp4Xf	16	3,600.33
LBR	Loose Rose Bouquet	85	3,341.85
VD8	Love Story - Variation Bouquet As Shown - Product URL bit.ly/42d5Gxc	15	3,001.97
R12P	Long Stemmed Pink Roses - Variation 12 Roses - Product URL bit.ly/42ERolW	30	2,943.20
VD10	More Than Words - Variation Bouquet As Shown - Product URL bit.ly/4j5oG6Z	11	2,760.02



Potential Acquisition Opportunities

Analyzing a Potential Acquisition Opportunity

- You don't have to be a CPA to do this!
- I reached out to three seasoned florists, as well as my accountant for advice on the acquisition, and ChatGPT was within \$10,000 of the valuation numbers that they recommended
- How to do it?
 - Upload the Tax Returns into ChatGPT
 - Ask for Chat GPT to include a market analysis to discover more potential for growth in the market.
 - Be sure to let it know if you will have any adjustments in expenses (rent, previous owner wages, other increases in operating costs, etc.)
 - Don't include your increased efficiencies/buying power this drives the valuation upwards -> less expenses = more profit = more value!

- Be specific, but don't overthink it!
 - o I've watched a lot of TikTok's about how to write prompts for Al.
 - I have personally concluded that you don't have to be a data analyst to write a suitable prompt.
 - Just be thorough and direct with what you are asking and make sure to include the details that you want the Al program to look at.
 - Start with the basic information, then move on to adjustments (see below with rent adjustment)
- Shirley's Florist. Can you do a comprehensive analysis of the market in which Shirley's Florist operates, and analyze the attached tax returns to come up with a reasonable estimate at the value of the business if I was to purchase the business in an asset sale?
- My rent will be increasing from \$27,000 to \$47,000 per year.

Market Analysis for Shirley's Florist in Trussville, Alabama

1. Demographics and Economic Conditions

Trussville is a growing suburb of Birmingham, Alabama, with a population that values local businesses. Key points include:

- Median household income higher than the Alabama average, suggesting disposable income for discretionary purchases like flowers.
- Trussville's focus on community events and celebrations could drive demand for floral services.

2. Industry Trends

- Florist Industry: Local florists face increasing competition from grocery stores, online services, and subscription-based floral arrangements.
- Seasonality: Peaks in demand during Valentine's Day, Mother's Day, weddings, and funerals.
- Shifts in Consumer Preferences: Growing demand for unique, personalized, and eco-friendly arrangements.

3. Competition

 Trussville likely has other small florists and retail stores offering floral services. Research indicates that quality, personalization, and customer relationships are differentiating factors.

Adjusted EBITDA and Net Income

1. Increased Rent Impact:

- Additional rent expense: 47,000 27,600 = 19,400.
- This reduces the Ordinary Business Income (OBI), or net profit, by \$19,400 annually.

2. Revised Average OBI:

- Original average OBI: \$120,169.
- Adjusted average OBI: 120, 169 19, 400 = 100, 769.

3. Updated Valuation:

- Recalculate the valuation using the adjusted OBI.
- Valuation range: $100,769 \times 2.5$ to $100,769 \times 3.5$:
 - \$251,922 to \$352,692.
- Midpoint valuation: $\frac{251,922+352,692}{2} = 302,307$.

ROI Adjustment

- 1. Adjusted Net Income Projections:
 - Projected net income will reduce by \$19,400 annually.
 - Adjusted cumulative net income over 5 years: $657, 133 (19, 400 \times 5) = 560, 133$.
- 2. Updated ROI:
 - ROI = Cumulative Net Income Adjusted Valuation Midpoint × 100:
 - $\frac{560,133}{302,307} \times 100 = 185.23\%$.

The Result

Summary

- Revised Valuation Midpoint: \$302,307.
 - a. Based on the financials the valuation came in around \$300k. I had to determine a value for the tangible assets in the business as well to add to the price I offered (coolers, vehicles, inventory, furniture and fixtures, etc)
- 5-Year Cumulative Net Income: \$560,133.
- 5-Year ROI: 185.23%
 - a. Over 5 years the cumulative income should pay for the business almost two times over meaning that the investment should be paid off in 2.5 3 years.