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MEDX PHARMACY

Product, Customer Behavior and Sales
Trend Analysis

BUSINESS OVERVIEW

MedX Pharma is a leading pharmaceutical sales and distribution company operating across states in the US. The company partners with healthcare distributors, hospitals, and retail pharmacies to ensure timely delivery of high-quality medicines. MedX handles a wide range of pharmaceutical products, manages multiple warehouses, and works with sales representatives and third-party distributors to expand market reach and fulfill demands.

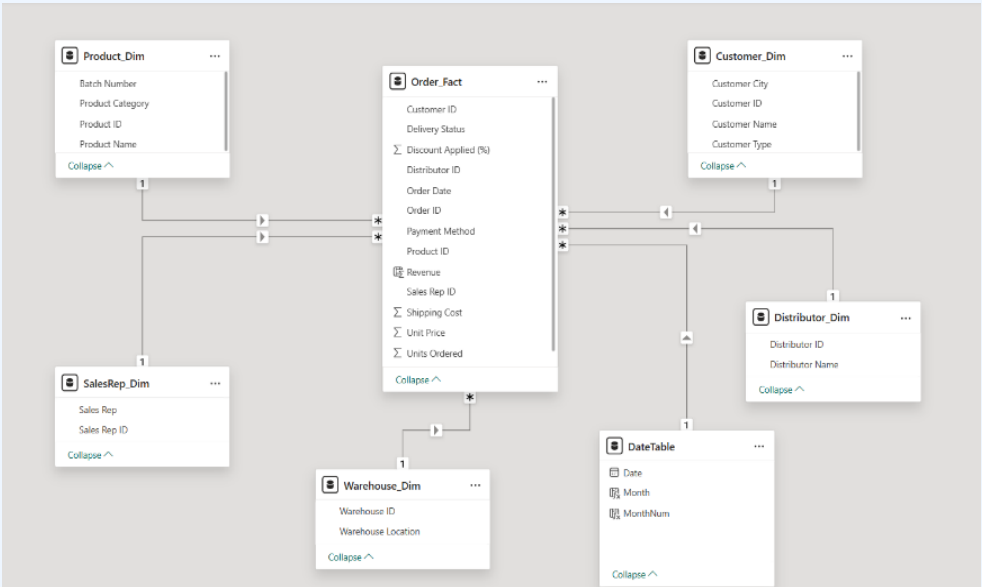
PROBLEM STATEMENT

MedX Pharma has been collecting sales, customer and distribution data in flat files in Excel without a structured system for extracting insights. With increasing product lines, expanding customer base, and rising operational complexity, the management finds it difficult to monitor performance and identify top-performing products, sales reps, and regions. The lack of a centralised reporting solution limits their ability to make timely, data-driven decisions.

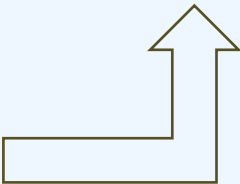
AIM OF PROJECT

- Transform MedX flat file data into a normalised and structured data model using Power BI.
- Build an interactive dashboard to analyse product sales, customer behavior and sales trend.
- Enable data-driven decision-making and improve visibility into sales and distribution operations.

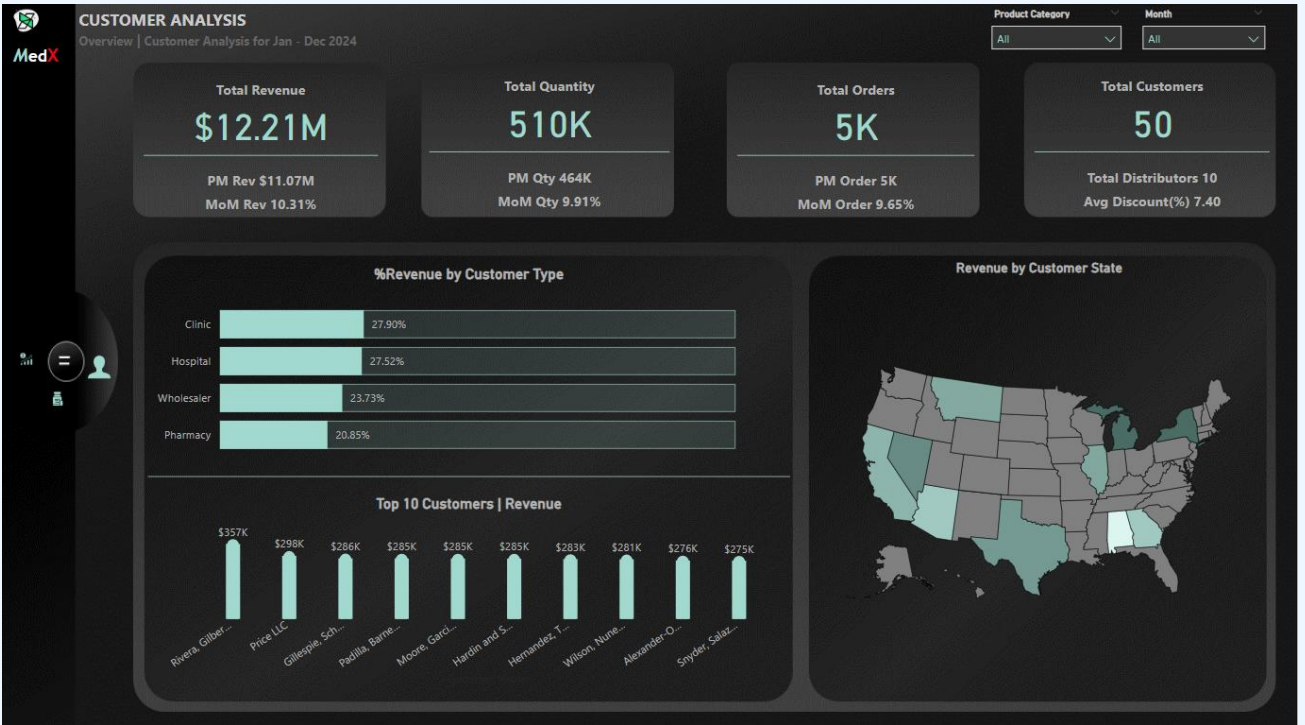
DATA MODEL



Order ID	Order Date	Customer ID	Product ID	Units Ordered	Unit Price	Discount Applied (%)	Distributor ID	Delivery Status	Payment Method	Sales Rep ID	Shipping Cost	Warehouse ID
ORD10003	07 December 2024	32	169	41	46.75	0	7	Cancelled	Mobile Money	7	8.63	2
ORD10011	31 May 2024	30	146	77	16.92	0	5	Cancelled	Bank Transfer	7	4.39	2
ORD10049	19 September 2024	25	183	181	45.79	0	5	Cancelled	Bank Transfer	16	2.73	2
ORD10076	08 July 2024	15	96	81	19.7	0	9	Cancelled	Bank Transfer	4	7.51	2
ORD10120	11 June 2024	20	23	93	32.98	0	5	Cancelled	Credit Card	12	8.06	2
ORD10163	16 April 2024	35	182	146	19.7	0	7	Cancelled	Bank Transfer	17	5.56	2
ORD10239	21 May 2024	49	192	8	14.38	0	10	Cancelled	Cash	15	4.85	2
ORD10251	15 April 2024	42	158	109	28.22	0	7	Cancelled	Bank Transfer	17	3.93	2
ORD10266	16 April 2024	38	37	85	47.09	0	4	Cancelled	Cash	11	6.63	2
ORD10321	31 January 2024	24	6	116	15.86	0	10	Cancelled	Bank Transfer	10	5.8	2
ORD10347	11 July 2024	26	34	53	26.34	0	5	Cancelled	Credit Card	1	7.44	2
ORD10382	10 March 2024	12	34	50	49.1	0	2	Cancelled	Credit Card	2	1.39	2
ORD10385	29 March 2024	19	193	40	37.14	0	5	Cancelled	Bank Transfer	19	3.88	2
ORD10390	27 July 2024	35	142	21	34.18	0	3	Cancelled	Credit Card	17	4.13	2
ORD10413	02 February 2024	31	3	170	41.59	0	6	Cancelled	Cash	7	6.59	2
ORD10462	30 August 2024	25	52	55	31.54	0	2	Cancelled	Credit Card	11	6.86	2
ORD10482	07 September 2024	22	157	118	11.3	0	1	Cancelled	Cash	2	9.34	2
ORD10526	18 March 2024	33	31	21	38.09	0	8	Cancelled	Credit Card	11	8.14	2
ORD10581	27 June 2024	13	33	61	29.19	0	10	Cancelled	Bank Transfer	19	6.47	2
ORD10660	12 May 2024	9	84	82	23.38	0	6	Cancelled	Bank Transfer	11	9.91	2
ORD10693	13 April 2024	28	103	126	34.09	0	6	Cancelled	Bank Transfer	12	5.34	2
ORD10702	11 March 2024	23	123	21	5.35	0	1	Cancelled	Mobile Money	17	8.9	2
ORD10722	16 May 2024	31	35	16	46.63	0	5	Cancelled	Mobile Money	17	1.92	2
ORD10730	18 September 2024	9	22	118	39.1	0	6	Cancelled	Credit Card	4	5.13	2
ORD10749	21 December 2024	10	55	21	32.64	0	1	Cancelled	Mobile Money	16	3.75	2
ORD10759	14 January 2024	28	125	126	14.82	0	1	Cancelled	Bank Transfer	9	6.93	2
ORD10775	22 October 2024	41	163	43	7.96	0	10	Cancelled	Mobile Money	5	7.33	2
ORD10777	31 March 2024	12	148	109	21.97	0	5	Cancelled	Bank Transfer	16	5.11	2
ORD10778	01 August 2024	40	179	159	18.14	0	1	Cancelled	Cash	19	4.22	2
ORD10802	16 July 2024	21	50	200	38.37	0	9	Cancelled	Mobile Money	4	8.27	2
ORD10813	14 April 2024	50	170	96	22.14	0	2	Cancelled	Credit Card	15	8.36	2



VISUALISATION





TAILORED ANALYSIS

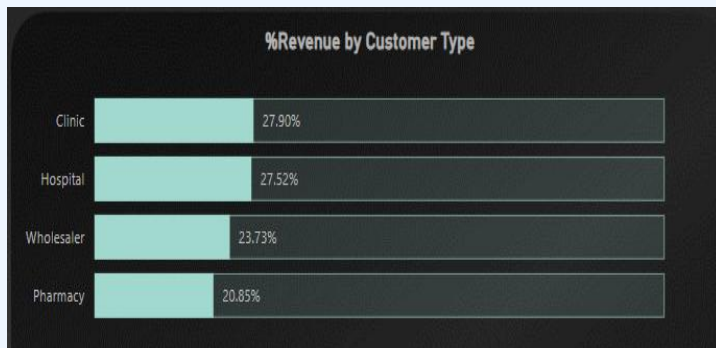
1. CUSTOMER ANALYSIS

KEY INSIGHTS:

Total Revenue: MedX pharmacy had \$12.21 million with a 10.31% Month over Month increase and \$11.07 million from the previous month. This is a healthy revenue trend.



Top Customer Types by Revenue:



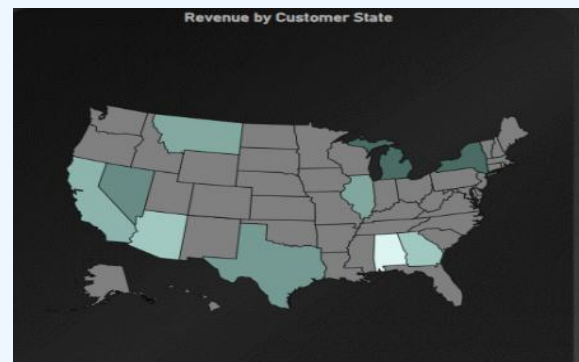
- Clinics (27.90%)
- Hospitals (27.52%)
- Wholesalers (23.73%)
- Pharmacies (20.85%)

Customer Distribution:



- 50 customers and 10 distributors which suggests an average of 5 customers per distributor.
- Average discount of 7.40% is decent for pharmaceutical / medical sales if volume justifies it.

Geographical Insights: Some states show stronger customer presence/revenue, but a few have low or no activity.



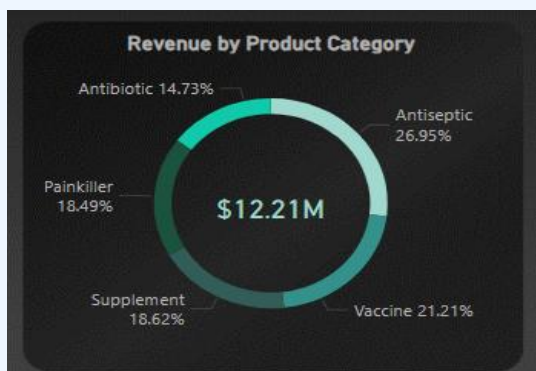
Top 10 Customers: Top customer (Rivera Gilbert) alone brought in \$357,000. This suggests a potential revenue concentration risk.



2. PRODUCT ANALYSIS

Key Insights:

Product Portfolio: 200 products managed by 20 sales reps across 3 warehouses.



Product Category Revenue:

- Antiseptics (26.95%) and Vaccines (21.21%) are the top categories.
- Antibiotics are underperforming (14.73%).

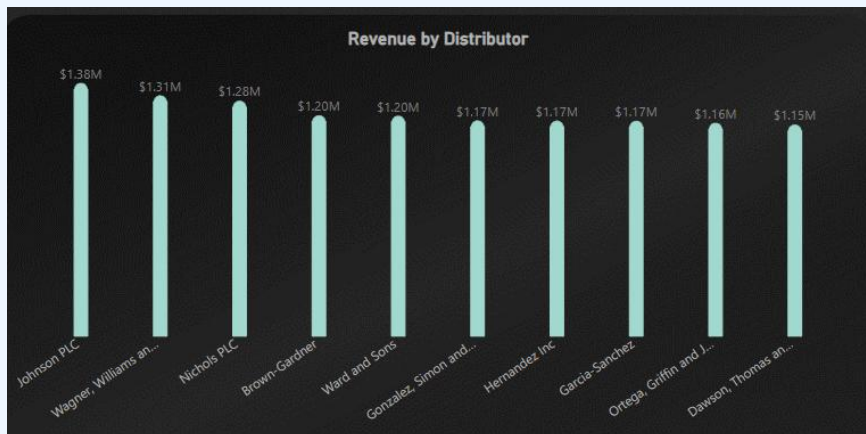


Warehouse Performance: Warehouse C handles 67.28% of orders which indicates potential over- reliance.

Top 5 Products: Paracetamol and Fluconazole are top earners, with \$343,000 and \$324,000 respectively.



Distributor Revenue: Johnson PLC (\$1.38 million) leads, followed closely by Wagner and Nichols. Top 10 distributors generate around similar revenue bands.



3. SALES TREND ANALYSIS

Key Insights:

Revenue Fluctuation: Revenue peaks in April, July, and December; a sharp dip in May and June.

December shows the highest revenue which may be due to possible seasonal boost.



Order Trends: October has the highest order volume (454) while June has the lowest order volume (353).



TOP 10 Sales Rep		
Sales Rep	Total Revenue	Total Orders
David Cox	\$704,387	273
Leslie Torres	\$692,273	271
Keith Contreras	\$673,235	257
Lisa Lindsey	\$670,838	290
Mr. Angel Johnson	\$664,033	256
Michael Wilson	\$655,408	266
James Smith	\$639,226	248
Brian Norman	\$635,769	248
Rodney Greene	\$624,125	249
Brenda Foster	\$608,379	249

Sales Rep Performance:
Top Performer: David Cox (\$704,387 revenue from 273 orders)

Bottom Performer: Robert Bauer had the least revenue (\$520,344 revenue from 228 orders). Close revenue range is observed across bottom reps, but high order counts showing inefficiency or lower value per order.

BOTTOM 10 Sales Rep		
Sales Rep	Total Revenue	Total Orders
Robert Bauer	\$520,344	228
Tracy Gentry	\$549,400	230
Jeffrey Adams	\$552,579	244
Sara Flores	\$553,150	226
Kelly Cummings	\$559,891	228
Courtney Randall	\$560,064	235
Jonathan Young	\$570,270	274
David Love	\$585,148	244
Jimmy Rice	\$592,166	246
Todd Mendoza	\$598,476	238

RECOMMENDATIONS

1. Revenue Diversification: Strengthen revenue in underperforming customer types, product categories, and geographic regions.
2. Operational Risk Mitigation: Reduce over-reliance on single warehouse, product category, or high-value clients.
3. Sales Performance Boost: Tailor rep KPIs to emphasize high-value sales, not just volume; reward efficiency.
4. Data-Driven Expansion: Use the insights from state and distributor data to guide marketing and expansion efforts.