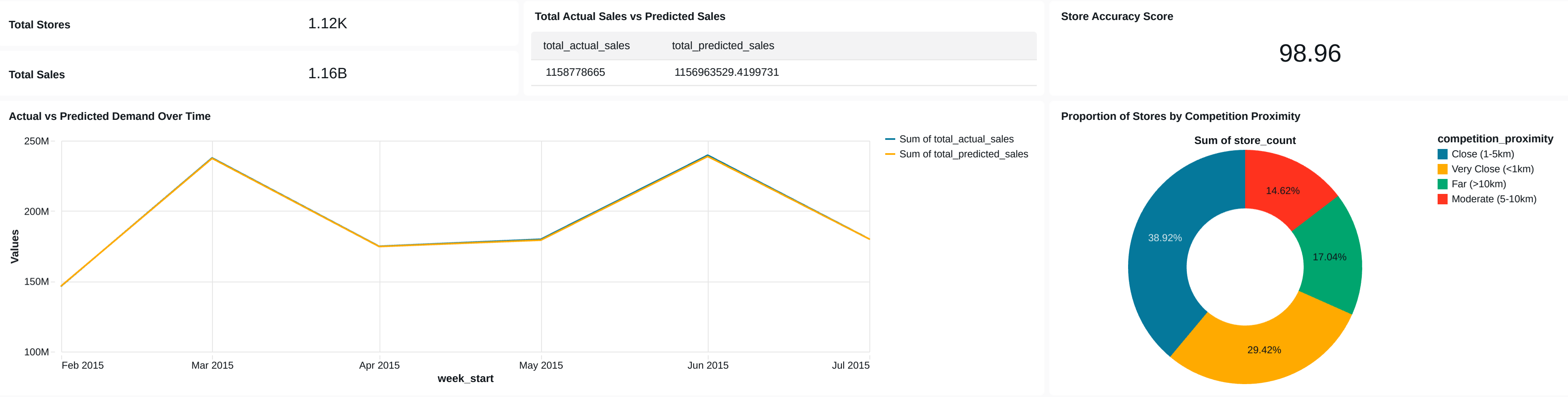


Supply Chain Demand Forecasting & Inventory Optimization



Actual vs Predicted Demand Over Time

Sum of total\_actual\_sales

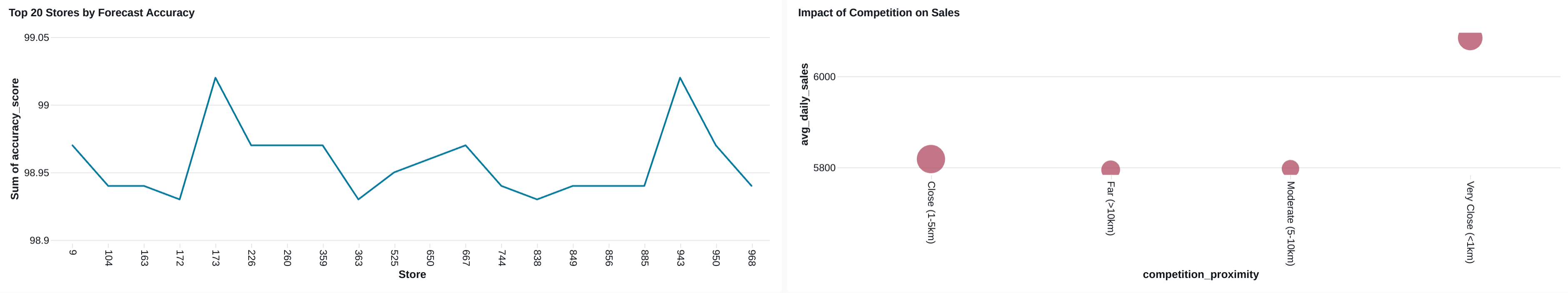
Sum of total\_predicted\_sales

Proportion of Stores by Competition Proximity

Sum of store\_count

competition\_proximity

- Close (1-5km)
- Very Close (<1km)
- Far (>10km)
- Moderate (5-10km)



Stockout Alerts					
#	Store	current_inventory	days_until_stockout	inventory_gap	recommended_action
1	458	46.38	0.10	2742.00	URGENT: Place order immediately
2	43	49.46	0.20	2399.00	URGENT: Place order immediately
3	1049	28.04	0.20	1520.00	URGENT: Place order immediately
4	425	41.04	0.30	1366.00	URGENT: Place order immediately
5	856	114.00	0.40	2750.00	URGENT: Place order immediately
6	512	109.32	0.40	2048.00	URGENT: Place order immediately
7	749	110.19	0.50	1911.00	URGENT: Place order immediately
8	810	151.49	0.60	2075.00	URGENT: Place order immediately
9	65	146.27	0.60	1982.00	URGENT: Place order immediately
10	1005	104.17	0.70	2210.00	URGENT: Place order immediately

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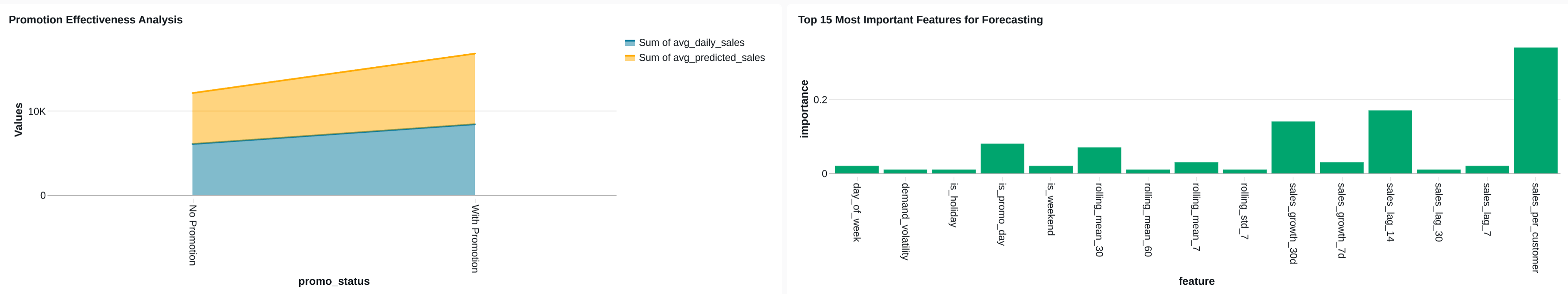
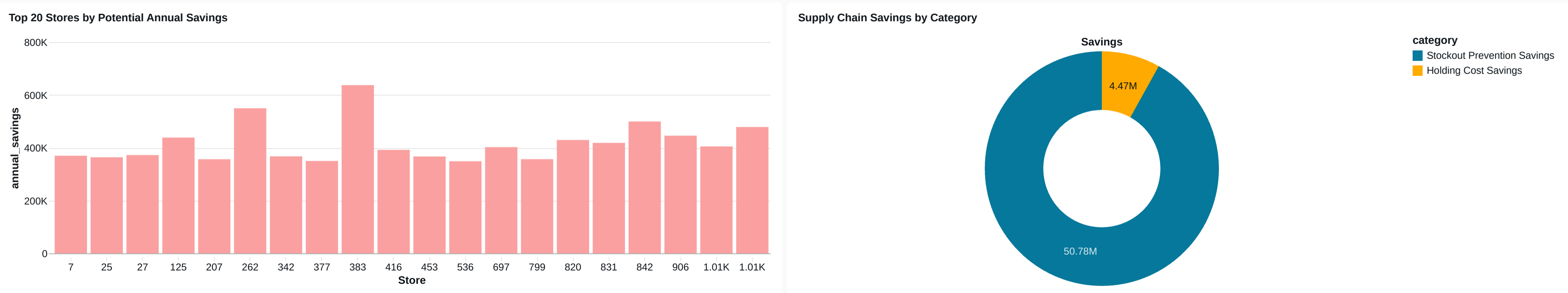
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Comparison of Predicted Sales Counts					
Store	prediction_count	avg_predicted_sales	avg_actual_sales	avg_mape	accuracy_score
173	146	8130.50	8134.64	0.98	99.02
943	146	7212.31	7224.11	0.98	99.02
260	146	6421.86	6418.31	1.03	98.97
667	145	8786.97	8789.78	1.03	98.97
9	145	7583.42	7589.19	1.03	98.97
359	146	6819.46	6833.68	1.03	98.97
226	145	6975.02	6985.05	1.03	98.97
950	145	5751.05	5752.91	1.03	98.97
650	145	6448.93	6435.87	1.04	98.96
525	146	9998.98	9997.58	1.05	98.95
856	146	7272.48	7284.36	1.06	98.94