



Sales Method
Analysis &
Recommendations

A Data-Driven Approach to Optimizing Sales Strategies

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Overview of the Analysis

Sales Methods Analyzed:

Email: Widely used, efficient in reaching a broad audience.

Call: Direct engagement, potentially valuable for niche segments.

Email + Call: Combined approach for personalized follow-up.

Objective:

Identify the most effective method for driving revenue and engaging customers efficiently.

Data Validation & Cleaning

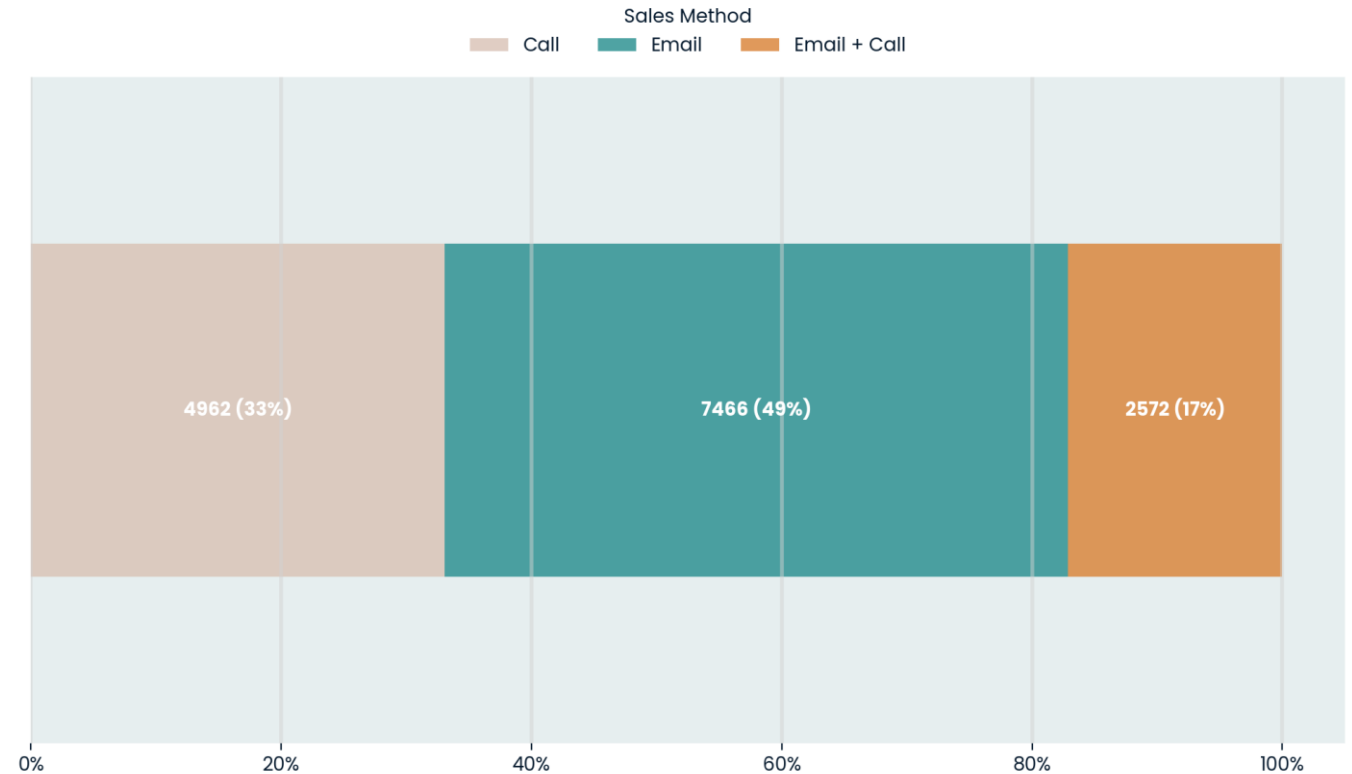
- Adjusted sales_method entries to correct for typographical errors, mapping entries to the correct 3 methods.
- Imputed revenue column missing values with median values based on the sales method.
- Capped years_as_customer values to a maximum of 39 years to reflect company history.
- Ensured data consistency across all columns for more reliable insights.

Initial Column Profile Output:

Column Name	Data Type	Unique Values	Null Values	Duplicated Values	Min Value	Max Value	Mean	Median	Standard Deviation	Most Common Value	Most Common Value Count	Max String Length	Min String Length
week	int64	6	0	14994	1	6	3.0982666666666665	3.0	1.656419807092205	1	3721	N/A	N/A
sales_method	object	5	0	14995	N/A	N/A	N/A	N/A	N/A	Email	7456	12	4
customer_id	object	15000	0	0	N/A	N/A	N/A	N/A	N/A	00019f95-cd18-4a2a-aa62-512cc6b17ac5	1	36	36
nb_sold	int64	10	0	14990	7	16	10.084666666666667	10.0	1.8122133327416081	10	3677	N/A	N/A
revenue	float64	6743	1074	8256	32.54	238.32	93.93494255349705	89.5	47.43531224572558	51.86	11	N/A	N/A
years_as_customer	int64	42	0	14958	0	63	4.965933333333333	3.0	5.044951558865982	1	2504	N/A	N/A
nb_site_visits	int64	27	0	14973	12	41	24.990866666666665	25.0	3.5009142152079415	25	1688	N/A	N/A
state	object	50	0	14950	N/A	N/A	N/A	N/A	N/A	California	1872	14	4

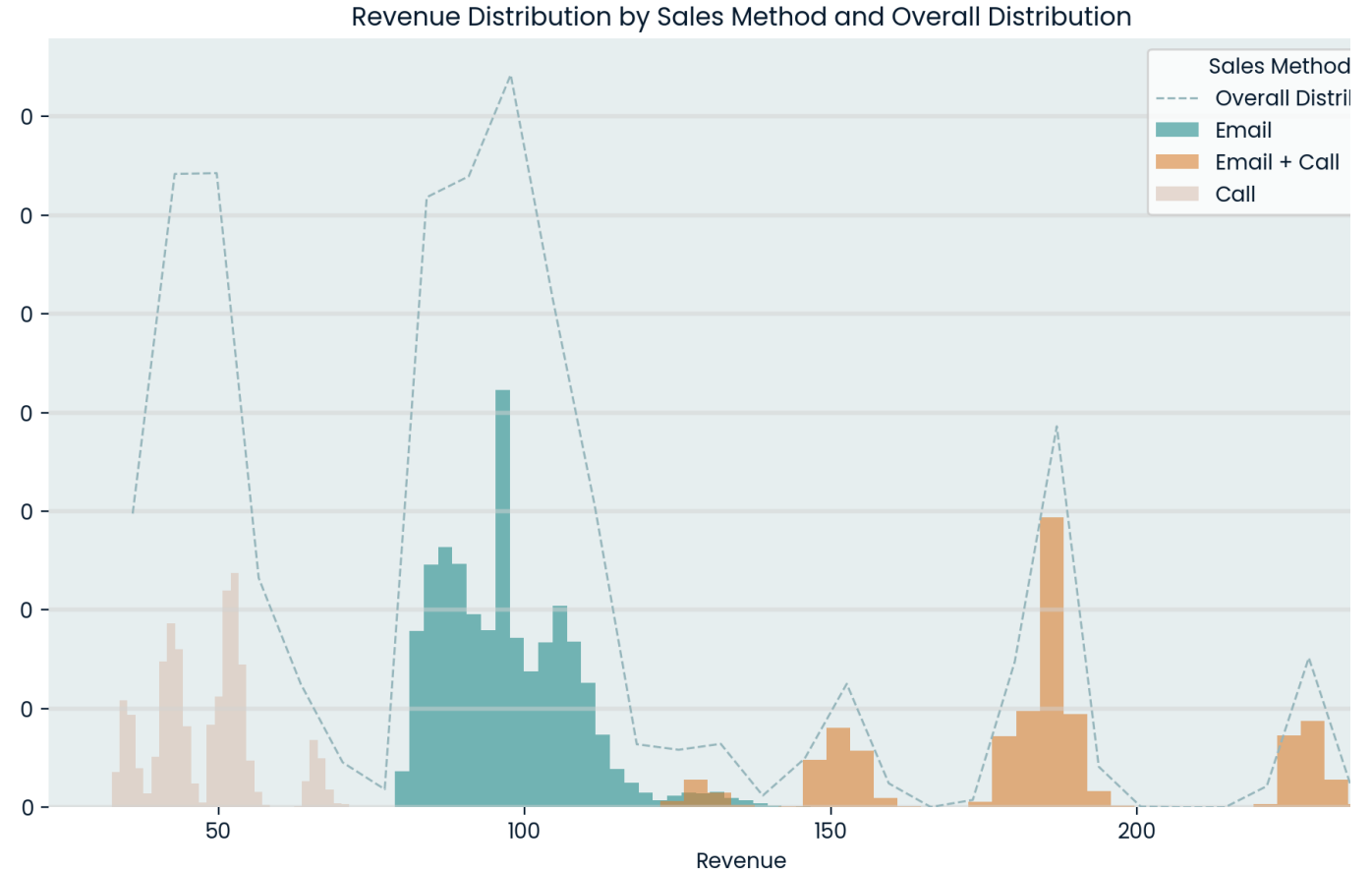
1. How Many Customers Were There for Each Approach?

- **Email method:** 49% of customers, wide reach but lower per-customer revenue.
- **Call method:** 33%, personalized but time-intensive.
- **Email + Call method:** 17%, balanced but limited by resources.



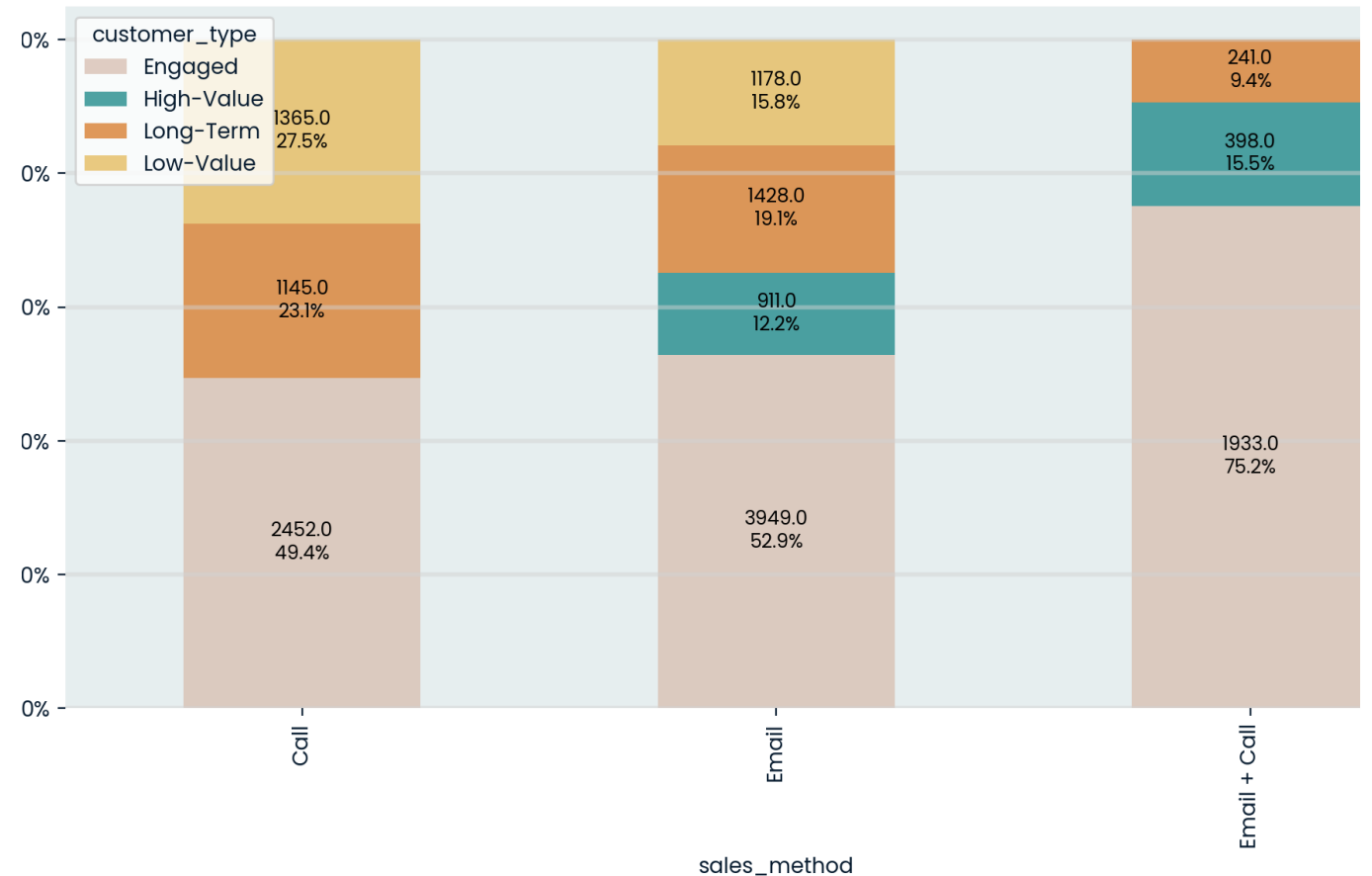
2. What Does the Spread of Revenue Look Like Overall? And for Each Method?

- **Email:** Lower revenue per customer, but works well for large-scale reach.
- **Call:** The lowest revenue per customer, but might serve niche segments.
- **Email + Call:** The highest revenue per customer, showing the value of follow-up calls.



3. Customer Type Creation and Distribution

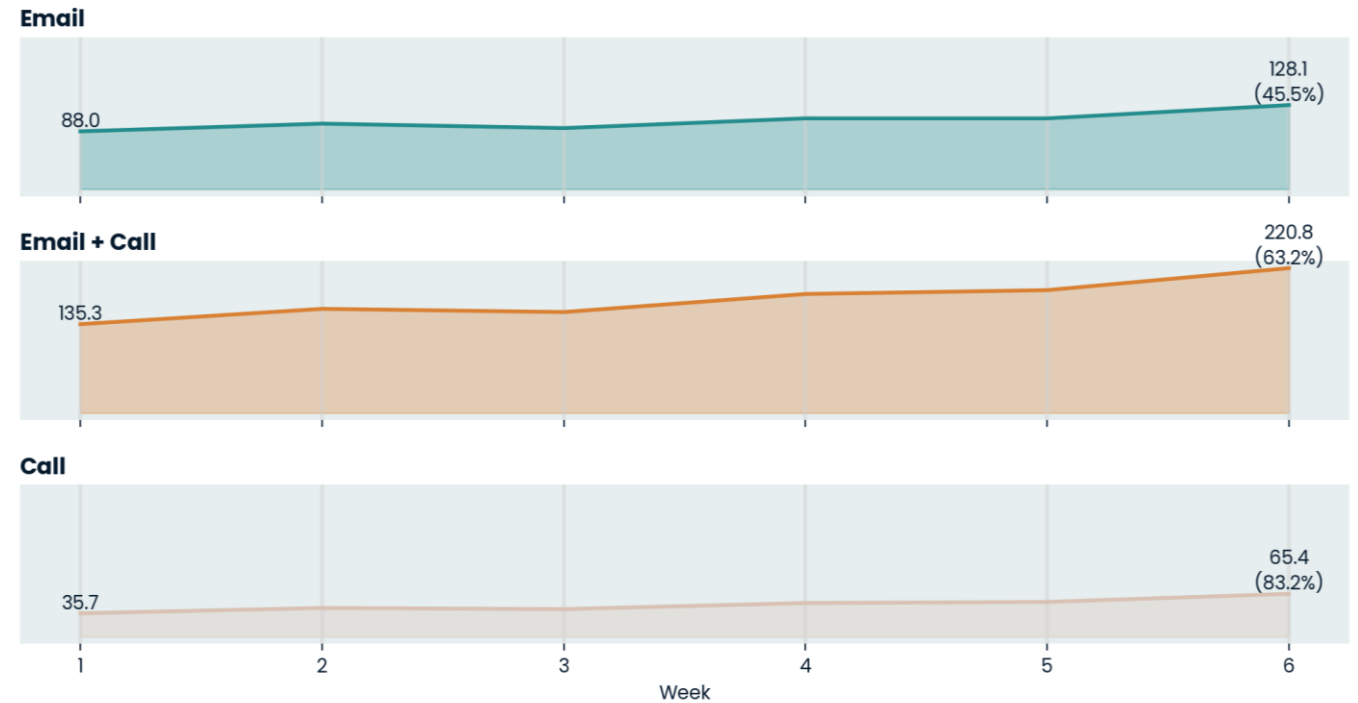
- **Engagement Priority:** High site visits override previous classifications, labeled **Engaged**.
- **Hierarchical Segmentation:** Engaged > Long-Term > High/Low Value based on set thresholds.
- **Email Method:** Broad reach but includes a smaller proportion of high-value and engaged customers.
- **Email + Call Method:** Highest engagement and value potential Indicates that a **personalized, combined approach** effectively retains high-value, engaged customers.
- **Call Method:** Less effective for high engagement; targets more Low-Value customers (27.5%) than other methods.



4. Was There Any Difference in Revenue Over Time for Each of the Methods?

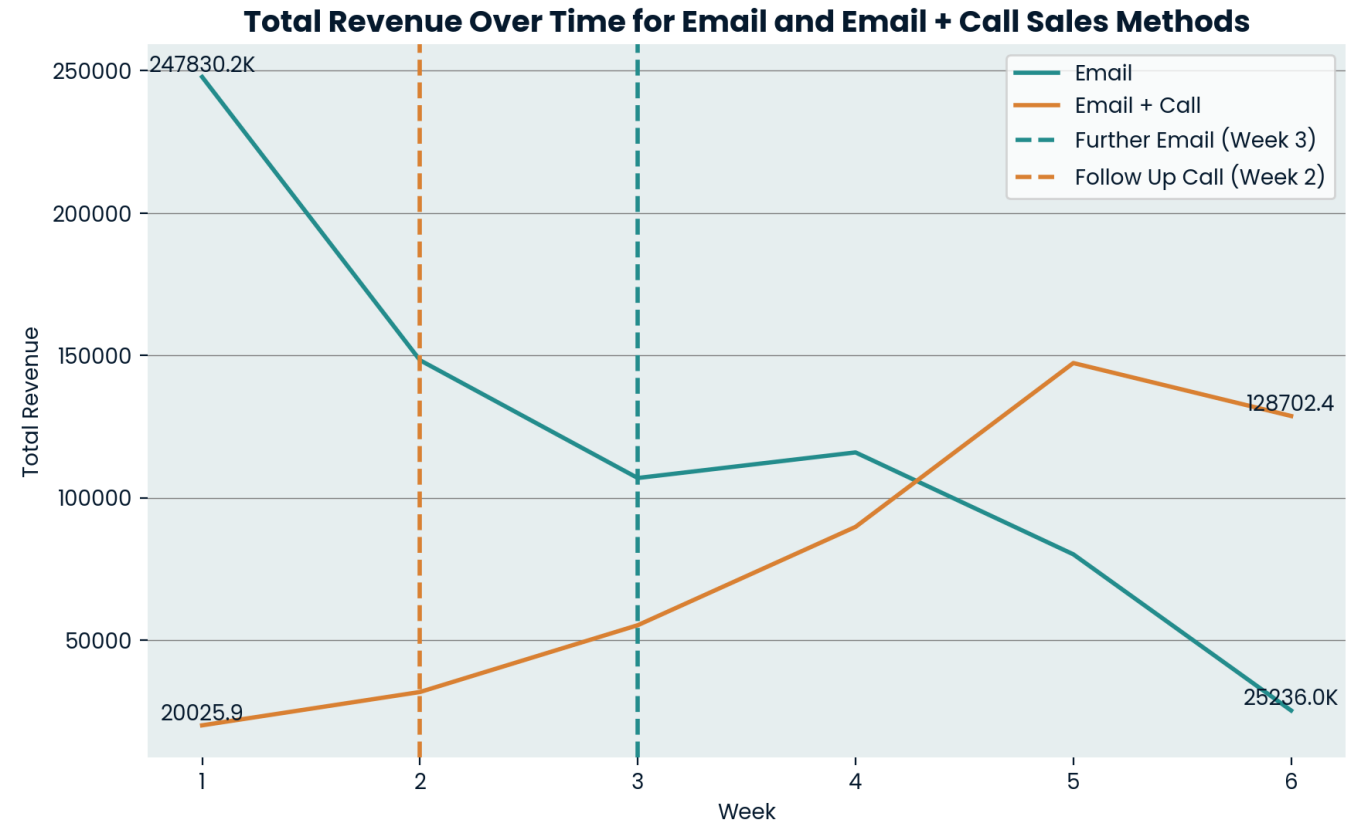
- Takeaway: Email + Call excels in sustained, high-value engagement, while Email is stable but lower-value, and Call shows limited impact. Focus future efforts on Email and Email + Call for optimal revenue results.

Average Revenue for Each Week Over Time by Sales Method



5. Total Revenue Over Time for Email and Email + Call Methods

- **Email:** Steep decline in revenue after Week 1.
- Further Email changes the direction for a week.
- **Email + Call:** Steady revenue growth, fueled with Follow up Call, peaking at Week 5.
- Strategic Insight: Personalized follow-ups (Email + Call) lead to better long-term engagement and revenue.



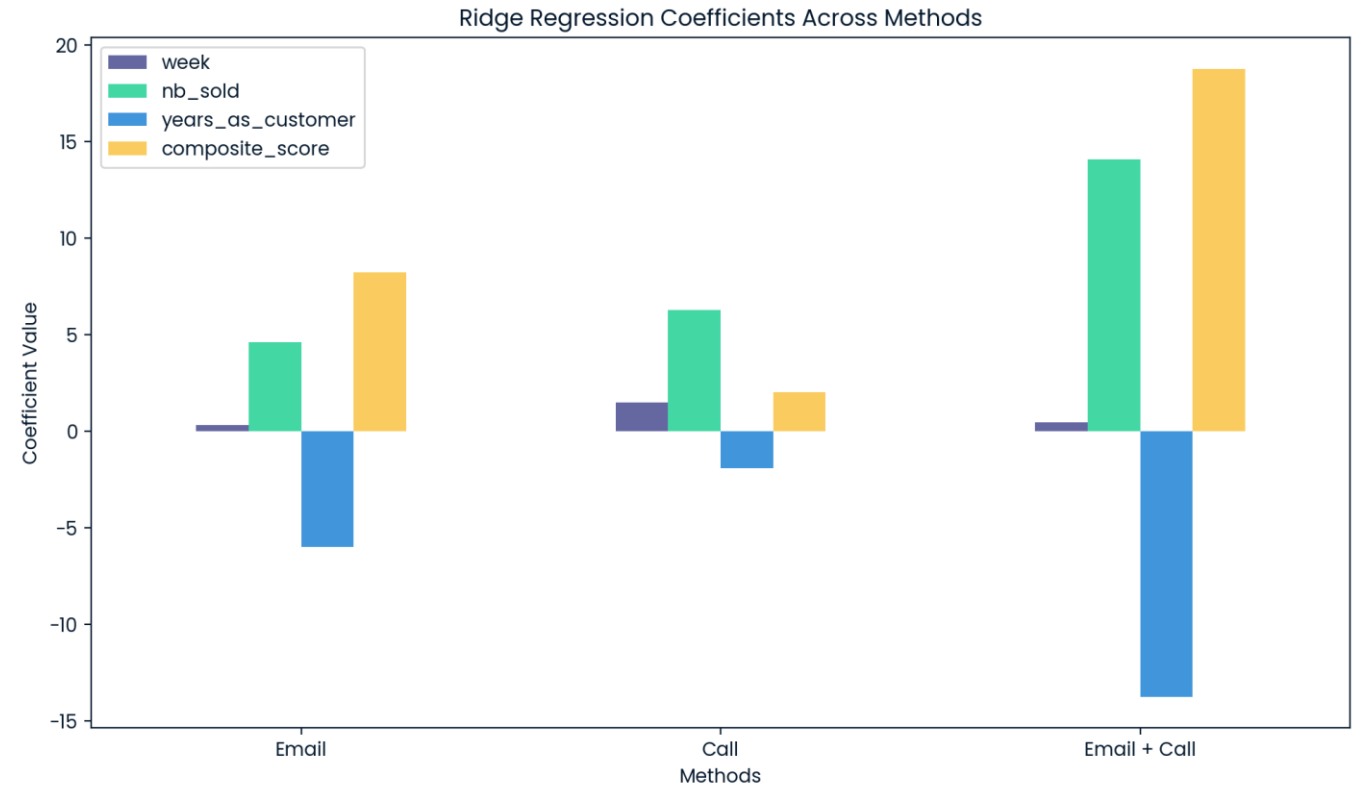
6. Metric Hunt - Discovering the possible metrics

- **Composite Score:** A weighted scoring system is applied to the metrics:
- Revenue per item (30% weight)
- Revenue per time (40% weight)
- Average site visits (10% weight)
- Average years as customer (20% weight)

sales_method	revenue_mean	revenue_sum	nb_sold_mean	nb_sold_sum	nb_site_visits_mean	years_as_customer_mean	week_mean	time_spent_sum	revenue_per_item	revenue_per_time	composite_score
Email	97.01	724313.35	9.73	72639	24.75	4.98	2.47	37330	9.97	19.40	14.22
Email + Call	183.80	472730.95	12.23	31444	26.77	4.51	4.29	38580	15.03	12.25	12.99
Call	47.65	236445.16	9.51	47187	24.42	5.18	3.43	148860	5.01	1.59	5.62

7. Key Variables Response on Revenue

- Longer customer tenure shows a negative impact on revenue across all methods.
- Number of items sold per transaction has the strongest impact in the **Email + Call** method.
- Weeks since launch have a minimal effect on revenue growth across all methods.



Recommendations

- **Prioritize Email:** Effective for maintaining large-scale engagement.
- **Use Email + Call selectively:** Best for high-value and engaged customers.
- **Deprioritize Call Method:** Too resource-heavy for the return.
- **Monitor Composite Score:** Use it for optimizing ongoing sales efforts.
- **Refine Customer Segmentation:** Allocate resources efficiently based on customer profiles.



Conclusion



Email is the most efficient for broad engagement, while **Email + Call** is valuable for high-revenue customers. The **Call method** should be reconsidered unless focusing on specific long-term relationships.



Implementing these recommendations will allow the sales team to optimize strategies and improve revenue generation.