

# Pens & Printers New Product Launch Analysis

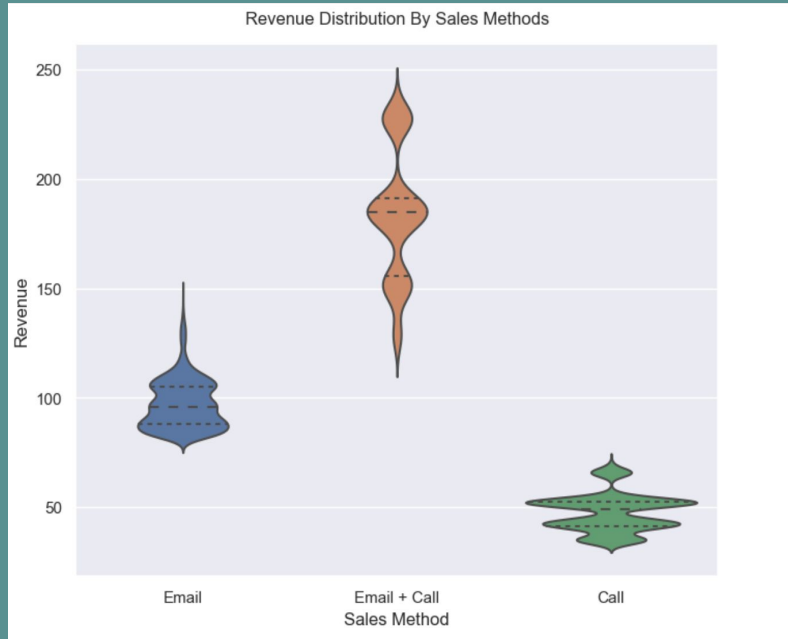
Sales Methods & Revenue



# Business Goals & Analysis Objectives

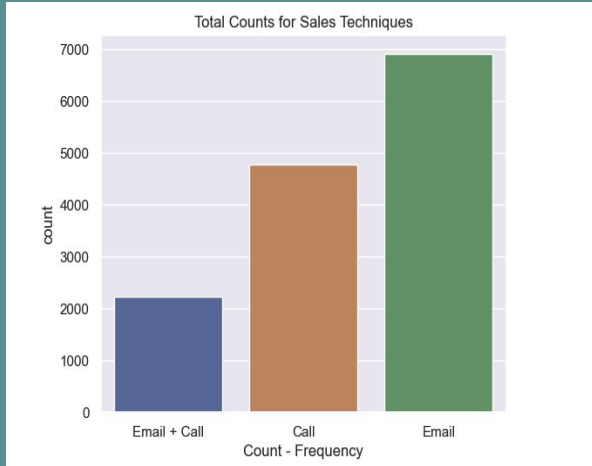
- Business Goals
  - Identify most common sales method used on customers and proportional breakdown of three defined sales techniques
  - Discover most profitable and common revenue ranges seen for customers by sales technique
  - Uncover any correlating customer characteristics that impacted revenue
- Analysis Objectives
  - Detail & visualize relationship between revenue with **sales\_methods**, **number of new products sold**, and **week since product launch**
  - Evaluate & visualize customer unique characteristics like **state**, **website\_visits**, and **years\_as\_customer**
  - Cite recommendations with analysis evidence for subsequent sales cycles.

# Five Point Revenue Distribution Summary

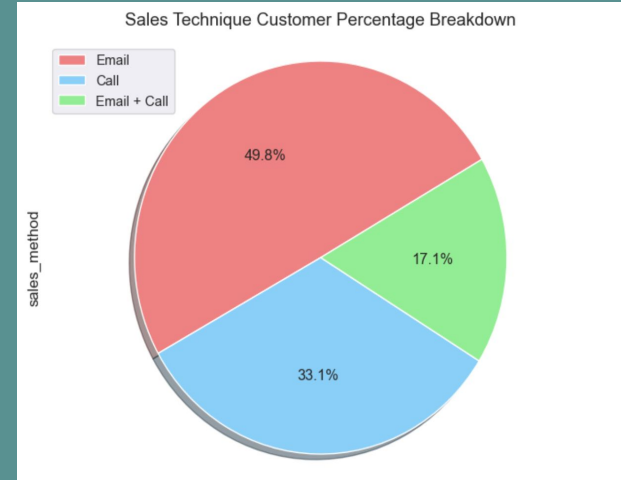


- Over the 6 week sales data presented, the chart to the left highlights the two-prong approach of “Email + Call” resulting in the highest average revenue amount, albeit with the highest variability.
- If selecting just one technique, “Email” had higher average revenue as well as higher upside in our observed revenue.
- If only using a “Call” method, the distribution has two very pronounced and higher seen average values around our 25% and 75% percentile range of the distribution. These ranges are quite tight with little variability seen for revenue when taking this approach.

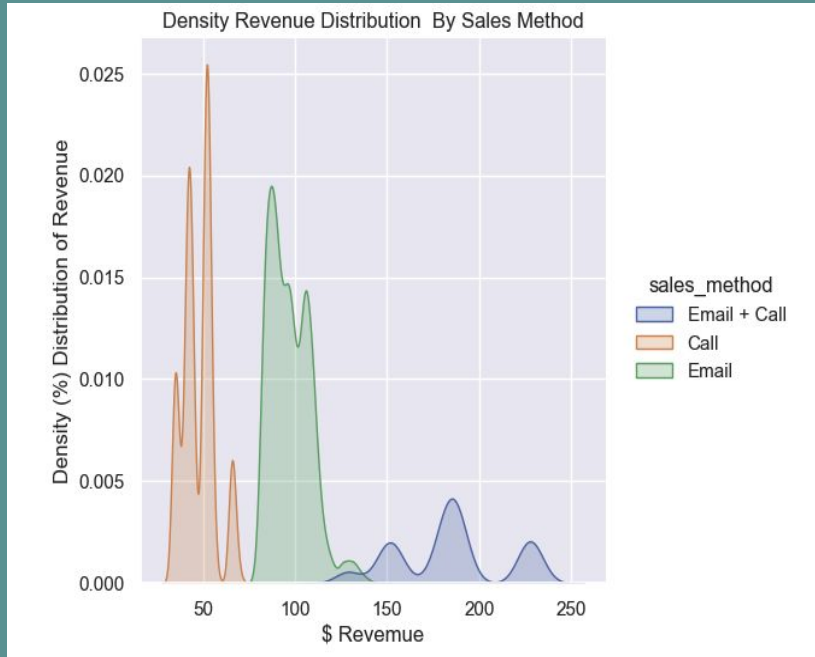
# Outcomes: Customers Proportion to Sales Methods



- Looking at the customers count by sales technique used, the combined “Email + Call” approach only accounts for around ~15% of our customers.
- “Email” reigns supreme and accounts for over 50% of how our customers were approached over the 6 weeks.
- The “Call” only method still accounts for a sizeable ~35% of our customers used over this time period.

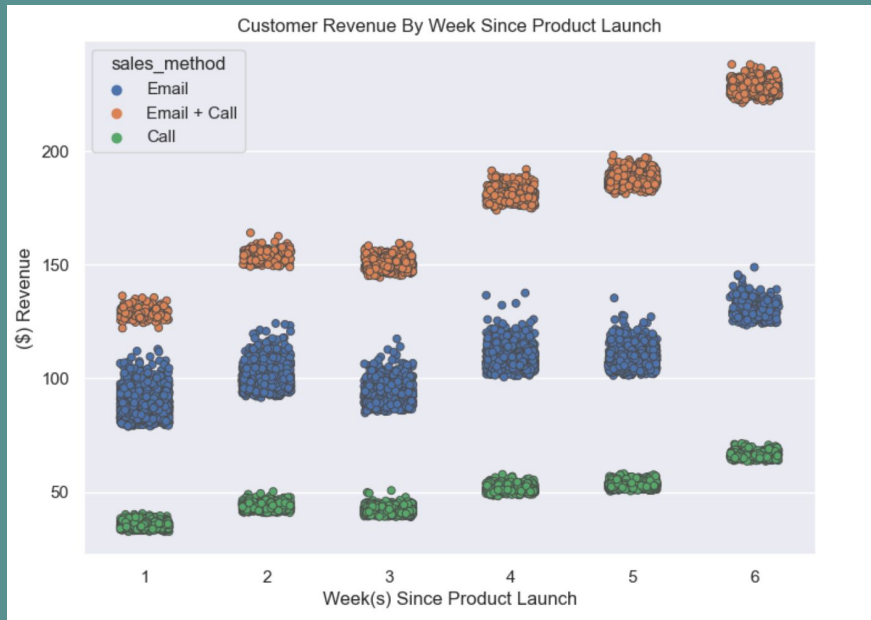


# Outcomes : Overall Revenue Distribution



- The density plot details how sales techniques accounted in terms of percentage of overall revenue. For example, nearly 2.5% of all Revenue over the 6 week period came in at about \$50 dollar increments for the "Call" sales technique.
- As the combined "Email + Call" approach didn't account for many customers, it holds limited total overall revenue but again highlights its' upside in revenue despite higher variability.
- Lastly, "Email" highlights how its revenue accounts for the highest overall percentage/density of total revenue at a very predictable range.

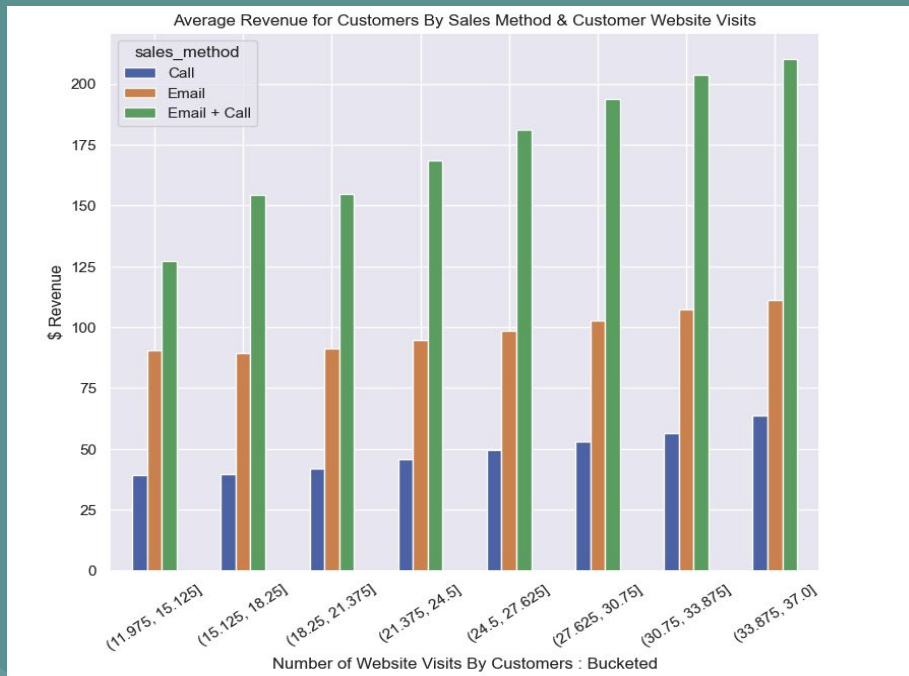
# Outcomes: Revenue Over Time By Sales Method



- Over the 6 weeks since the product launch, the following visualization represents each customer as a point which is then grouped by the sales method
- The clustering seen allows an insight into the revenue distribution and observed individual customer revenue values.
  - For example, the first Week saw the "Email" technique average about \$90 dollars with the most revenue variability of the three techniques that week
- Most notable is the upward trend seen between weeks 1-2, 3-4, and 5-6.
  - During these three week periods, there was noticeable increase and most pronounced in the last week of the reviewed data (5-6).

# Customer Insights

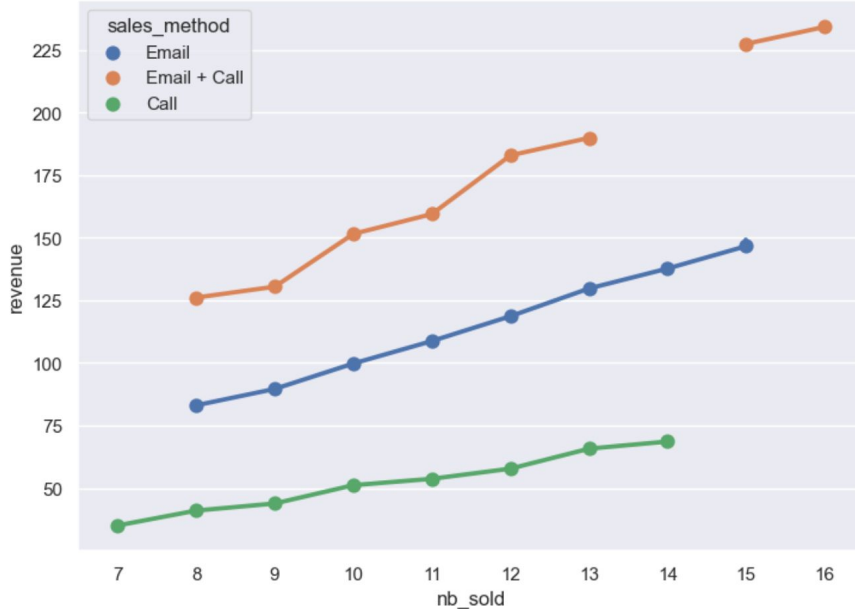
## Revenue Averages By Customer Website Visits



- Unlike the years spent as a customer, a customer's overall website visits does show a nice positive linear trend for Revenue.
- Should the customer visit over 20 times the "Email + Call" sales technique really shows some high upside for average revenue.
- Unsurprisingly here we see a tangible impact at driving customers to the website for higher average revenues across all sales techniques.

# Outcomes : Customer Insights

## Number of New Products Impact on Revenue



- Using a customer attribute of nb\_sold (# of new products), we can assess by sales\_method the trend of higher average revenue regardless of sales\_method
- However, we see a similar trend with low variability with a 'Call' only sales\_method
- Both 'Email' and 'Email + Call' show considerable higher average revenue per customer average if 10+ new items are purchased



# Analysis & Business Outcomes

- **Revenue Distribution By Sales Methods**

- Time permitting, a combined approach of “Email + Call” saw the greatest average Revenue with higher variability
- Limited upside and average Revenue with a “Call” only approach and the noted average 30 minute duration on calls suggest a move away from this stand-alone approach would be beneficial
- If only choosing one technique, go with “Email” for higher upside and likelier less time spent per customer

- **Customer Counts By Sales Technique & Overall Revenue Distribution**

- “Email” accounts for over 50% of our customers, “Call” for about 35% and the combined approach for about 15% of our customers
- “Email” only has the highest percentage of overall Revenue with a normalized distribution averaging right around \$100 dollars
- Marginal make-up of total revenue distribution for the combined “Email + Call” technique which despite its’ variability, has great average and upside to consider

# Analysis & Business Outcomes

- Revenue Over Time
  - Week by Week average for Revenue over the 6 weeks shows noticeable plateauing for 2 weeks with steady growth among the other 4 weeks and most significantly a large growth in the last week of recorded revenue data
  - Confirmation of sales by techniques holding the same positional rankings for most average revenue per customer
- Customer Characteristics For Revenue Considerations
  - Average Revenue by customer's years spent as a customer has little to no variation overall or by sales techniques.
  - Average Revenue by customer's website visits shows consistent linear growth across all sales techniques with notable higher average revenue seen for the "Email + Call" technique
  - Overall Revenue distribution by state highlights the company's primary geographic locations customer reside in and contribute to revenue from

# Business Metric

- Best Business Metric

- With an objective of seeking out the **most profitable sales\_method** for the new product line, I would recommend we use the revenue distribution or **five-number summary box/violin-plot values** by sales\_method as our guiding metric for sales\_method implementation for customer outreach in future sales cycles with an emphasis on average revenue seen for sales method.
- Assessing the metric's and corresponding visualization waves within the sales\_method will also help visualize the potential variability in revenue seen as a measure of higher or lower upside.

- Metric with Observed Data

- Based on the 6 week sales data provided, the combined method of Email + Call had the highest average revenue returns per customer along with the highest upside in revenue across the three techniques. Therefore, if the current proportional distribution of only about 17% of all customers being approached with this technique is increased, an increase in revenue is likely to follow with a higher overall average revenue amount per customer.
- This would correspond with a decrease in the Call only method which currently account for about a 1/3 of all customers.
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# Business Recommendations

- New Customer Data Points Collection
  - Such customer traits as “time spent per customer” and “average price per items purchased” would help visualize a “time” component with generated revenue along with further data on how sales\_methods may have influenced what products were purchased.
- Incentivize Website Visits
  - Customers with higher website visits saw a tangible increase in average revenue regardless of sales technique.
- Increase Combined “Email + Call” Method Across Customers
  - As this technique is the smallest (in terms of total times used on our customers) of all the sales techniques used in our data, there is a clear revenue benefit to suggest that if possible, this technique should start to account for more of the sales lead approaches when contacting customers
- Limit a “Call” only approach
  - With nearly 35% of our customers being approached this way over 6 weeks, our revenue returns indicate a lack of upside and lowest average revenue return.