

Practical Exam – Product Sales

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| From: | Head of Analytics |
| Received: | Today |
| Subject: | New task from the sales team |
| <p>Hey!</p> <p>I have an analysis task for you from the sales team. I think you will find it interesting, there is lots of flexibility for you to try different methods. You can see the request in the email below.</p> <p>I would like you to perform the analysis and write a short report for me. I don't need to see any code, but I do want to read your thinking and how you got to your conclusions.</p> <p>I also want you to prepare and deliver the presentation for the sales rep – you are ready for the challenge!</p> <p>You can find more details about what I expect you to do here. And information on the data here.</p> <p>I will be on vacation for the next couple of weeks, but I know you can do this without my support. If you need to make any decisions, include them in your work and I will review them when I am back.</p> <p>Good Luck!</p> | |

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|------------------|-------------------|
| From: | Sales Rep |
| To: | Head of Analytics |
| Received: | Yesterday |
| Subject: | Sales strategy? |

Hi,

Really hoping you could help me out with some analysis. This is quite short notice but I have a meeting with the executive team to update them on sales approaches for the new product line so I need this information as soon as possible.

We need to know:

- How many customers were there for each approach?
- What does the spread of the revenue look like overall? And for each method?
- Was there any difference in revenue over time for each of the methods?
- Based on the data, which method would you recommend we continue to use? Some of these methods take more time from the team so they may not be the best for us to use if the results are similar.

We don't really know if there are other differences between the customers in each group, so anything you can tell us would be really helpful to give some context to what went well.

I need to report to the executive team in 4 weeks. You need to present to me before then so I understand what is going on and what we do next.

Look forward to seeing your presentation.

About Pens and Printers

Pens and Printers was founded in 1984 and provides high quality office products to large organizations. We are a trusted provider of everything from pens and notebooks to desk chairs and monitors. We don't produce our own products but sell those made by other companies.

We have built long lasting relationships with our customers and they trust us to provide them with the best products for them. As the way in which consumers buy products is changing, our sales tactics have to change too. Launching a new product line is expensive and we need to make sure we are using the best techniques to sell the new product effectively. The best approach may vary for each new product so we need to learn quickly what works and what doesn't.

New Product Sales Methods

Six weeks ago we launched a new line of office stationery. Despite the world becoming increasingly digital, there is still demand for notebooks, pens and sticky notes.

Our focus has been on selling products to enable our customers to be more creative, focused on tools for brainstorming. We have tested three different sales strategies for this, targeted email and phone calls, as well as combining the two.

Email: Customers in this group received an email when the product line was launched, and a further email three weeks later. This required very little work for the team.

Call: Customers in this group were called by a member of the sales team. On average members of the team were on the phone for around thirty minutes per customer.

Email and call: Customers in this group were first sent the product information email, then called a week later by the sales team to talk about their needs and how this new product may support their work. The email required little work from the team, the call was around ten minutes per customer.

Data Information

The sales rep has pulled some data from their sales tracking system for us. They haven't included numbers for how much time was spent on each customer, but there may be some other useful customer information in here.

The data only relates to the new products sold. As there are multiple different products, the revenue will vary depending on which products were sold.

You can find the data [here](#). I will let you decide how to process it, just make sure you include all your decisions in your report.

The data hasn't been validated, so make sure that you check it against all of the information in the table before you start your analysis.

| Column Name | Details |
|-------------------|---|
| week | Week sale was made, counted as weeks since product launch |
| sales_method | Character, which of the three sales methods were used for that customer |
| customer_id | Character, unique identifier for the customer |
| nb_sold | Numeric, number of new products sold |
| revenue | Numeric, revenue from the sales, rounded to 2 decimal places. |
| years_as_customer | Numeric, number of years customer has been buying from us (company founded in 1984) |
| nb_site_visits | Numeric, number of times the customer has visited our website in the last 6 months |
| state | Character, location of the customer i.e. where orders are shipped |